

Legal framework for environmentally sound mining in Vietnam

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Abbreviations of legal documents

CoVN Constitution of Vietnam

LEP 1996 Law on Environmental Protection 1996
LEP 2005 Law on Environmental Protection 2005
LEP 2014 or LEP Law on Environmental Protection 2014

LoP 2017 or LoP Law on Planning 2017

LQPG 2007 or LQPG Law on the Quality of Products and Goods 2007

LST 2009 or LST Law Severance Tax 2009

LandL 2013 or LandL Law on Land 2013

LWR 2012 or LWR Law on Water Resources 2012

LoC 2014 or LoC Law on Construction 2014

LONA 2014 or LONA Law on Organization of the National Assembly 2014

LFF 2015 or LFF Law on Fatherland Front of Vietnam 2015

LOG 2015 or LOG Law on Organization of the [Central] Government 2015

LOUG 2015 or LOLG Law on Organization of the Local Government 2015

LUP 2009 or LUP Law on Urban Planning 2009

LPLD 2015 or LPLD Law on Promulgation of Legislative Documents 2015

LFC 2015 or LFC Law on Fees and Charges 2015

MinL 2010 or MinL Law on Minerals 2010

Abbreviations for selected relevant Vietnamese State agencies

MoC Ministry of Construction

MoF Ministry of Finance

MoIT Ministry of Industry and Trade

Monre Ministry of Natural Resources and Environment

MPI Ministry of Planning and Investment

NA National Assembly

DoNRE Department of Natural Resources and Environment (province, independent cities)

DoC Department of Construction (province, independent cities)

DoIT Department of Industry and Trade (province, independent cities)

1. Introduction

The present report reviews the legal and planning framework for the environmentally sound mining of construction aggregates in Vietnam. It applies the definition for *construction aggregates* or simply *aggregates* proposed by the European Aggregates Association as follows: "Aggregates are a granular material used in construction. The most common natural aggregates of mineral origin are sand, gravel and crushed rock. An end-product in themselves as railway ballast or armourstones, aggregates are also a raw material used in the manufacture of other vital construction products such as ready-mixed concrete (made of 80% aggregates), pre-cast products, asphalt (made of 95% aggregates), lime and cement". The study deals with the law in the field of mining, the environment and planning.

Relation to the MAREX project

This legal analysis is written within the scope of the scientific project "Management of Mineral Resource Extraction in Hoa Binh Province. A Contribution to Sustainable Development in Vietnam" (MAREX)² which is an effort by German and Vietnamese research organizations to present solutions towards sustainable mining with specific regard to the mining-burdened district of Luong Son in Hoa Binh province, Vietnam. In Luong Son, the extraction of limestone and basalt to support the regional and supra-regional construction boom is significantly affecting the natural landscape and the daily life of the local population. The MAREX project is looking for feasible and better solutions than the current practice of environmental protection in mining planning and mining activities, to showcase sustainable structures within the Hoa Binh province as a regional case study, but in the national context as well.

Constitutional background

According to the current Constitution of Vietnam 2013³ (CoVN 2013), all Vietnamese citizens have the right to live in a clean environment and every individual and organization shall contribute thereto (Art. 43). In this regard, national environmental policy is directed towards an efficient utilization of resources, and the conservation of nature and biodiversity (Art. 63, Clause 1). At the same time, the polluter pays principle applies, whereupon those who have caused environmental pollution, natural

¹ "Aggregates are produced from natural sources extracted from quarries and gravel pits and in some countries from sea-dredged materials (marine aggregates). Secondary aggregates are usually by-products from other industrial processes, like blast or electric furnace slags or china clay residues. Recycled aggregates derive from reprocessing materials previously used in construction, including construction, demolition residues." Online: http://www.uepg.eu/what-are-aggregates. Last accessed in September 2018.

² Further project information may be accessed on the project's homepage: www.marex-project.de

³ The Constitution of the Socialist Republic of Vietnam, dated 28 Nov 2013.

resource exhaustion or biodiversity depletion shall be strictly punished and shall rectify and compensate for damage (ibid, Clause 3).

The natural resources of the country, including land, water resources, and minerals resources, are public property and owned by all the Vietnamese people. Therefore, this common property is represented and uniformly managed by the State (Art. 53). For the purpose of socio-economic development (or in case of emergency), the State may expropriate land and has to process such measures in a public and transparent way, and compensate according to law (Art. 54, Clause 3).

The constitutional provisions are transformed into national law by the legislator. This means with respect to the mining sector in Vietnam that in order to receive the right to undertake mining activities, including quarrying for construction aggregates, a mining company must comply with the licensing procedures to ensure the relevant legality of operations. Part of this procedure is that the State administration should ensure the efficient use of land, as well as the economic operations of mineral extraction which, in turn, shall be connected with socio-economic development strategies and plans. At the same time, miners shall comply with the requirements of environmental and nature protection (Art. 63).

Course of the investigation

This report deals with some formal laws by the national Parliament, mainly the Law on Minerals, the Law on Environmental Protection, the Law on Land, the Law on Construction, and the Law on Investment. In some cases, other laws are discussed, too, such as the Law on Water Resources etc. The review also analyzes legal sources below the level of a formal law, such as governmental decrees, decisions by the prime minister, ministerial circulars, and the regulations provided by the provincial government of Hoa Binh to regulate the mining sector and matters of environmental protection. This legal analysis makes reference to relevant documents, which were promulgated by the end of 2017, except for some crucial regulations from 2018. This is a desktop study, thus it is beyond the scope of this work to review the topic of law enforcement or provide an empirical analysis.

For the purpose of the study, a various number of legal sources has been taken into account and are listed below. Some documents are only available in the original Vietnamese language, other documents, particularly from those of the National Assembly, central government, and the prime minister were available in English. It should be noted that the English versions are not "official" English

translations, thus, the Vietnamese original prevails. Most of the English legal documents were "unofficial translations", downloaded from the online database www.thuvienphapluat.vn⁴.

The study starts with an overview of the system of government and administration of Vietnam in Chapter 2, followed by a thorough description of the Mineral Law from 2010 as the main Act to impact mining activities in Chapter 3, and leads to a presentation of the Law on Environmental Protection 2014 focusing on how it impacts mining entities in Chapter 4. The subsequent Chapter 5 puts the question of planning in Vietnam center stage. This is done by reviewing socio-economic development planning, land use planning, spatial planning, and sectoral planning. Following this is Chapter 6 on the Law on Planning, passed in late 2017. With the purpose of overhauling the national planning system, this rather progressive law has already led to the amendment of a number of laws with regard to the provisions on planning, including the Mineral Law and the Law on Environmental Protection.

The study closes with a preliminary evaluation of the adequacy of the framework concerning its potential contribution to support environmentally sound mining activities and their implementation in Vietnam.

⁴ After also using public databases offered by the Ministry of Justice and other State institutions, in the end, the best platform to do such legal research was offered by the private company Thu Vien Phap Luat. There, one can check swiftly if the legal document is valid, if it is enforced already etc. However, this service is not free but requires a subscription. On the other hand, it even offers an English search screen to people not capable of Vietnamese.

2. The Political Regime in Vietnam

2.1 The One-Party System

The State of the Socialist Republic of Vietnam is an independent and sovereign country enjoying unity and integrity of territory, including the mainland, islands, seas and airspace (Art. 19, CoVN 2013). Vietnam is a socialist State ruled by law and of the People (ibid, Art. 2, Clause 1). All of the State's power belongs to the People and is based on the alliance of the working class, the peasantry and the intelligentsia (ibid, Clause 2). The state power is unified, delegated to state agencies to coordinate and control each other in the exercise of the legislative, executive and judicial powers (ibid, Clause 3).

There is only one legitimate political party. This One-Party regime is stated in Article 4, such that the Communist Party of Vietnam represents the interests of the working class, laboring people and the entire nation. The Party is based on Marxist-Leninist doctrine and Ho Chi Minh Thought, and is the leading force in the State and society of Vietnam (ibid, Clause 1). Organizations and members of the Communist Party of Vietnam shall operate within the framework of the Constitution and law (ibid, Clause 3).

The most important socio-political organization is the Vietnam Fatherland Front (VFF), which is a political alliance and a voluntary union of the political organization, socio-political organizations and social organizations, and prominent individuals representing their class, social strata, ethnicity or religion and overseas Vietnamese. The VFF shall constitute the political base of the people's administration, thus contributing to nation building and defense (ibid, Art. 9, Clause 1).

As a mass umbrella organization, the VFF contains other socio-political organizations, which are the Trade Union of Vietnam, the Vietnam Peasants' Association, the Ho Chi Minh Communist Youth Union, the Vietnam Women's Union and the Vietnam War Veterans' Association, respectively (ibid, Clause 2). The State shall create the working conditions for the VFF, its member organizations and other social organizations (ibid, Clause 3).

It should be mentioned that the VFF acts as a kind of supervisor of the government at provincial and district level. At the provincial level, the mass organizations of the Party play an important role, as the People's Council and People's Committee shall report the local situation to the VFF, and listen to their opinions and proposals for strengthening the local administration and socio-economic development (ibid, Art. 116, Clause 1). With regard to this provision, at each locality, the President of the VFF and heads of socio-political organizations may be invited to sessions and meetings of the People's Council

and People's Committee. In the Law on the Vietnamese Fatherland Front from 2015⁵ (LVFF 2015), the Communist Party is prescribed as a member and shall lead the VFF (ibid, Art. 4, Clause 4). Therefore, the Communist Party of Vietnam has direct access to the public administration's decision-making process at all levels per the monitoring rights of the VFF.

2.2 The Central Administration

With respect to the legal and planning system, two main levels of the public administration⁶ shall be discussed:

- The central or national administration
- The local administration.

2.2.1 The National Assembly

The highest representative body of the People and the highest body of State power of the Socialist Republic of Vietnam is manifested in the National Assembly (NA). It shall exercise constitutional and legislative powers, as well conducting supreme oversight over the State's activities (CoVN 2013, Art. 69). Other tasks and powers of the NA are displayed in the subsequent Article 70.

The NA operates mainly through the Standing Committee of the National Assembly (SCNA). Among others, the SCNA is authorized to suspend the implementation of documents of all governmental levels (ibid, Art. 74, Clause 4), to propose the National Assembly to elect, relieve from duty or remove from office the President or any chairperson of any public body (ibid, Clause 5), to supervise and guide the work of the People's Councils, and to annul resolutions of these levels if they contravene the Constitution, laws or documents of state agencies at higher levels (ibid, Clause 6).

Specifically, the SCNA may decide on the establishment, dissolution, consolidation, separation or adjustment of the boundaries of the administrative units within provinces or cities controlled by the central government (ibid, Clause 8).

Following the Constitution in 2013, several laws provide further detailed ruling on the public bodies. Regarding the organization of the NA, reference is made to Law No. 57 on Organization of the National Assembly⁷.

⁵ The National Assembly's Law No. 75/2015/QH13, dated 9 June 2015, on the Fatherland Front of Vietnam.

⁶ It should be noted that the impacts of decisions made by the Communist Party of Vietnam, especially in the course of Party Conventions, must not be neglected (see previous section on the political regime).

⁷ The National Assembly's Law No. 57/2014/QH13, dated 20 Nov 2014, on Organization of the National Assembly (LONA 2014).

2.2.2 The (Central) Government

According to the current Law on Organizing the Government⁸, the government is the highest administrative organ of the Socialist Republic of Vietnam which exercises the executive powers and is the executive branch of the NA. Therefore, the government is held accountable to and is responsible to the NA, the NA's Standing Committee, and the President of the State (Art. 1, LOG 2015).

The government is composed of the prime minister, deputy prime ministers, ministers and heads of ministry-levels (ibid, Art. 2, Clause 1), while the governmental organization is composed of ministries and ministerial-level agencies (ibid, Clause 2), and headed by the prime minister (ibid, Art. 4, Clause 2). Some ministries are particularly involved in the administration of the environmentally sound mining of construction aggregates, namely the Ministry of Natural Resources and Environment (MoNRE) ⁹, the Ministry of Construction (MoC)¹⁰ and the Ministry of Industry and Trade (MoIT)¹¹. However, the role of the Ministry of Finance (MoF)¹² is crucial, as it is responsible for all kinds of fees including those for mining projects and environmental protection.

The main duty and power of the government is to enforce the legal system. The objective is to ensure constitutionality, legality and consistency in the legislative documents being issued by the public administration. This is done by examining the implementation of such instruments and dealing with the instruments in breach of the Constitution and legislation (ibid, Art. 6, Clause 1).

In short, the government decides on the measures to organize the implementation of the legal framework (ibid, Clause 2), it decides on policies and submits project proposals on making laws and ordinances to the National Assembly (ibid, Art. 7, Clause 1).

As for the task of administering and developing the economy, the government shall formulate basic socio-economic development objectives, criteria, policies and tasks for the country to be approved by the National Assembly. It shall decide on specific policies regarding finance, national currency, salary

⁸ The National Assembly's Law No. 76/2015/QH13, dated 19 June 2015, on organization of the government (LOG 2015).

⁹ The MoNRE is currently regulated by Government's Decree No. 36/2017/NĐ-CP, dated 4 April 2017, defining the functions, tasks, powers and organizational structure of the Ministry of Natural Resources and Environment (Decree 36).

¹⁰ The MoC is currently regulated in the Government's Decree No. 81/2017/NĐ-CP, dated 17 Jul 2017, defining the functions, tasks, powers and organizational structure of the Ministry of Construction (Decree 81).

¹¹ The MoIT is currently regulated in the Government's Decree No. 98/2017/ND-CP, dated 18 Aug 2017, defining the functions, tasks, powers and organizational structure of the Ministry of Construction (Decree 98).

¹² The MoF is currently regulated in the Government's Decree No. 87/2017/NĐ-CP, dated 26 Jul 2017, defining the functions, tasks, powers and organizational structure of the Ministry of Finance.

and price. Lastly, the government shall decide on, direct and organize the execution of the strategy, planning and proposal for socio-economic development (ibid, Art. 8, Clause 3).

To support socio-economic targets, the government may refer to developing the fields of education and training (ibid, Art. 11, Clause 2 and 4), information and communication technology (ibid, Art. 13, Clause 2), the management of healthcare with regard to policies on the relevant scale and structure of population and family planning (ibid, Art. 14, Clause 5).

In this context, the government has the duty and power to carry out consistent state administration by means of inspection, examination, citizen reception, and resolution of complaints, indictments, and prevention and control of bureaucracy, corruption and extravagance in the state apparatus (ibid, Art. 24, Clause 1).

Besides being responsible to the NA, Article 26 of the Law established the relationship of the government with the Vietnam Fatherland Front and socio-political organizations. Especially, the government shall regularly notify the Central Committee of the Vietnam Fatherland Front Committee and central organs of socio-political organizations about the socio-economic situation, and decisions or policies of the government towards the different social classes (ibid, Art. 26, Clause 4).

In the following, the law provides rules on the duties and powers of the prime minister (from Art. 28), of ministers and heads of ministry-level agencies (from Art. 32), of ministries, ministry-level agencies and government agencies (from Art. 39).

Following Art. 110 ff. of the Constitution on the local administrative structures at provincial and communal level (Art. 110 ff., CoVN), the LOG prescribes that the government shall execute the decentralization and delegation of powers to local governments under the provisions of laws and resolutions of the National Assembly, and ordinances and resolutions of the National Assembly Standing Committee. The basis for this is to guarantee the State's consistent central management, such that the local governments decide on or perform several state management tasks in industries and fields within their areas of relevance to the local governments' conditions and capacity (LOG 2015, Art. 25).

2.3 The Local Administration

Basic formation of local government

The administrative units of the local administration are prescribed in Art. 110, Clause 1 of the Constitution such that:

- 1) The country shall be divided into provinces and independent cities (jointly referred to as *provinces*),
- 2) A province shall be divided into rural districts, towns, and provincial cities, whereas
- 3) An independent city shall be divided into urban districts, rural districts, towns and equivalent administrative units,
- 4) A rural district shall be divided into communes and townships,
- 5) A town or provincial city shall be divided into wards and communes,
- 6) An urban district shall be divided into wards.

Special administrative-economic units may be established by the National Assembly (ibid). The boundaries of administrative units are established, dissolved, consolidated, separated or adjusted by mandatory consultation with the local People and must comply with the process and procedures prescribed by law (ibid, Clause 2).

The local administrations are organized so as to ensure the implementation of the Constitution and law in their localities by deciding on local issues prescribed by law; they are examined and supervised by state agencies at higher levels (ibid, Art. 112, Clause 1). The People's Council as the local state body of power (Art. 113, Clause 1) shall elect the People's Council of the same level which is the executive body of the respective People's Council and the local state administrative body, and is responsible to the People's Council and state administrative agencies at higher levels (Art. 114, Clause 1).

The LOLG¹³ regulates the administration units, organizations and activities of the local government noted above (ibid, Art. 1).

With respect to its organization, the local government shall include a People's Council and a People's Committee to be installed at each of the four levels of administration listed in Article 2 of the LOLG 2015 (ibid, Art. 4). The rural local government shall include the governments of the province, district and communes (ibid, Art. 5). Lastly, the urban local government shall include the local government of municipalities under control of the central government and subordinated municipalities, urban districts, district-level towns, provincial cities, wards and commune-level towns.

Further rulings are provided on the People's Council (Art. 6) whose members are elected for a regular tenure of five years (Art. 10, Clause 1), the People's Committees (Art. 8), and on the specialized administration arms of the PPC which shall be established at provincial and district levels (Art. 9).

The administrative units are divided into different classes, for the purpose of identifying regulations on socio-economic development, and establish the state machinery therein (LOLG 2015, Art. 3, Clause 1). The administrative division must be based on indicators such as scale of population, natural

¹³ The National Assembly's Law No. 77/2015/QH13, dated 19 Jun 2015, on organization of the local government (LOLG 2015).

areas, and the number and kind of administrative units involved (ibid, Clause 2). The types of administrative units are additionally classified. Municipalities are given the four classes I, II, III, and "special" concerning Hanoi and Ho Chi Minh City. As for districts and communes, they may be of class I, II or III (ibid, Clause 3).

Local power-sharing principles

Article 2 of the LOLG differentiates between four different levels of local government:

- 1) <u>The provincial level, including provinces and municipalities under the control of the central government,</u>
- 2) <u>The district level</u>, including suburban and urban districts and provincial cities, and municipalities controlled by provincial-level local government,
- 3) The communal level, including communes, wards or towns of communal level,
- 4) Special administrative-economic units which are established by the National Assembly.

The division of the power of the State between central and local government is facilitated by the *segmentation* of power (Art. 11, Clause 1) which in itself consists of a *delegation* of central powers to local governments to be stipulated by law (Art. 12, Clause 1), and the *decentralization* of powers to local governments based on working requirements, possibility and conditions, and specific states of each locality (Art. 13, Clause 1).

While power is segmented, the result is to maintain the state's consistent administration (Art. 11, Clause 2, lit. a). The administrative units at the level of local governments shall be enabled to exercise their autonomy in order to perform duties in specific areas (ibid, lit. b). In fulfilling duties, the communal government is responsible to the district it belongs to, and the district government acts responsibly towards the provincial government (ibid, dd).

In the course of decentralizing duties and powers to local governments or inferior state organs, the superior level must ensure that necessary resources and conditions are provided, such that the decentralized duties or execution of decentralized powers shall be performed properly.

In April 2018, the provincial government of Hoa Binh issued HB-Decision 16¹⁴ to regulate the management of mining activities within the premises of the province. The regulation prescribes in Articles 4 ff. the responsibilities of the State bodies in the province mainly involved in managing the mining sector. The Department of Natural Resources and Environment (DoNRE) shall chair and collaborate with other relevant institutions to implement the legal provisions on mining in Hoa Binh

¹⁴ The People's Committee of Hoa Binh's Decision No. 16/2018/QĐ-UBND, dated 2 Apr 2018, to promulgate the regulations on management of mining activities on the territory of Hoa Binh province, whereby the regulations are enclosed in that decision (HB-Decision 16).

(Art. 4, Clause 1). The Department of Industry and Trade (DoIT) shall elaborate, adjust and supplement planning on mineral exploration, exploitation and use of minerals (except for minerals used as construction materials) in the province under the licensing of the provincial People's Committees (Art. 5, Clause 1). As for the Department of Construction, it shall elaborate, adjust and supplement the planning on exploration, exploitation and use of minerals for construction materials in the province (Art. 6, Clause 1). Also of importance is the Department of Labor, War Invalids and Social Affairs which shall perform provisions of the Labor Code, the Law on Social Insurance and the Law on Occupational Safety and Health for mineral exploitation units (Art. 7, Clause 1), and appraise solutions thereof (ibid, Clause 2).

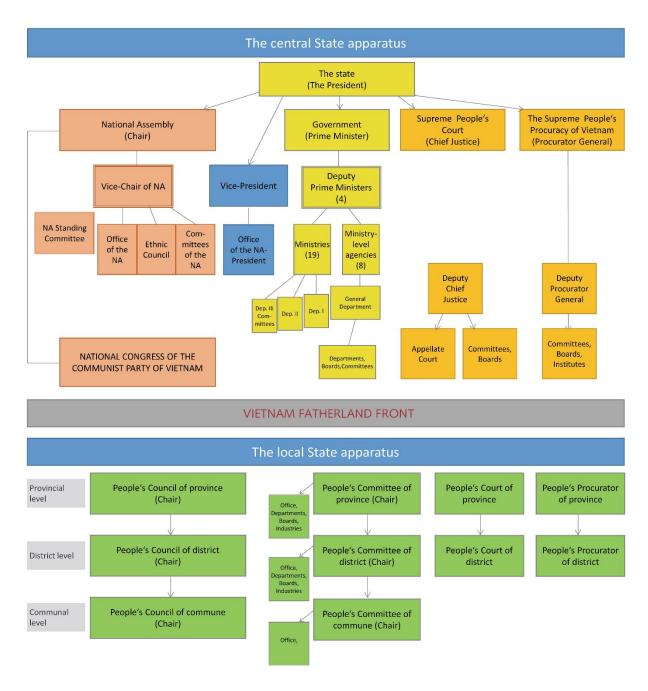


Figure 1: The political system of Vietnam (Taitamtinh 2015, edited by Vu, IOER 2018, CC BY-SA)

2.4 Legislative Documents

Relevant for the present study is the system of legislative documents, as well the State bodies authorized to promulgate them. This authorization is based on the Law on Promulgation of Legislative Documents (LPLD 2015¹⁵). The system of legislative documents is provided in Art. 4 of the law by listing 15 types of such documents:

- 1) The Constitution [amendments by the National Assembly].
- 2) Codes and Laws (hereinafter referred to as Laws), Resolutions of the National Assembly
- 3) Ordinances, Resolutions of the Standing Committee of the National Assembly; Joint Resolutions between the Standing Committee of the National Assembly and the Management Board of the Central Committee of the Vietnamese Fatherland Front
- 4) Orders, Decisions of the President.
- 5) Decrees of the Government; Joint Resolutions between the Government and Management Board of the Central Committee of the Vietnamese Fatherland Front
- 6) Decision of the prime minister.
- 7) Resolutions of the Judge Council of the People's Supreme Court.
- 8) Circulars of the executive judge of the People's Supreme Court; Circulars of the Chief Procurator of the Supreme People's Procuracy; Circulars of ministers, heads of ministerial agencies; Joint Circulars between the executive judge of the People's Supreme Court and the Chief Procurator of the Supreme People's Procuracy; Joint Circulars between ministers, heads of ministerial agencies and the executive judge of the People's Supreme Court, the Chief Procurator of the Supreme People's Procuracy; Decisions of the State Auditor General.
- 9) Resolutions of the People's Councils of provinces and independent cities (hereinafter referred to as provinces).
- 10) Decisions of the People's Committees of provinces.
- 11) Legislative documents of local governments in administrative-economic units.
- 12) Resolutions of the People's Councils of districts, towns and cities within provinces (hereinafter referred to as districts).
- 13) Decisions of the People's Committees of districts.
- 14) Resolutions of the People's Councils of communes, wards and towns within districts (hereinafter referred to as communes).
- 15) Decisions of the People's Committees of communes.

Art. 15 to Art. 30 provide details on the purpose and effects of these different legislative documents.

¹⁵ The National Assembly's Law No. 80/2015/QH13, dated 22 Jun 2015, on promulgation of legislative documents (LPLD 2015 or LPLD).

3. Requirements of the Mineral Law

All mining activities in Vietnam that are targeting solid raw minerals refer to the Mineral Law of 17 November 2010 (MinL 2010¹⁶) as the primary source of legal reference.

3.1 Scope and Principles of the Mineral Law

The scope of the MinL 2010 encompasses: (i) the geological baseline surveys of minerals, (ii) protection of unexploited minerals, (iii) mineral exploration and mining, and (iv) the State management of minerals in the mainland, islands, internal waters, territorial sea, contiguous zone, exclusive economic zone and continental shelf. The MinL 2010 excludes from its scope of regulation the mining of oil, gas, natural water other than mineral water and natural thermal water (Art. 1, MinL 2010).

The terms "mineral exploration" and "mineral mining"

The MinL 2010 divides mining activities into two separate stages or types: (i) "mineral exploration" which aims to identify mineral reserves and obtain relevant information for (ii) "mineral mining" which is directed towards operations to exploit the minerals by means of building mine infrastructure, excavation, classification, enrichment etc. (Art. 2, Clauses 5-7 MinL 2010).

State policies in the mining sector

As minerals are public property, they shall be uniformly presented and managed by the State (Art. 53, COVN 2013, see above), especially by the establishment of mineral strategies and master plans to pursue, among other objectives, socio-economic sustainable development and security objectives (Art. 3, Clause 1 MinL 2010). The State also invests in and conducts baseline geological studies that serve the current mineral strategies and master plans (Art. 3, Clause 3, MinL 2010), and invests in the exploration and mining of strategic minerals to serve socio-economic development, national defense and security (Art. 3, Clause 5, MinL 2010).

While doing so, the State bodies shall provide for the protection of especially yet unexploited minerals and define rational, economical and effective methods of exploitation and utilization of minerals (Art. 3, Clause 2; Art. 16, MinL 2010).

¹⁶ The National Assembly's Law No. 60/2010/QH12, dated 17 Nov 2010, on Minerals (MinL 2010 or MinL).

Principles of mineral activities

According to Art. 4, Clauses 1-4 MinL 2010, all mineral activities must apply four principles of mining which are highlighted as follows:

Principle I	Mineral activities must fundamentally comply with mineral strategies and master plans, and uphold the protection of the environment, natural landscape, historical-cultural relics, scenic places and other natural resources while ensuring national defense, security and social order and safety (ibid, Clause 1).
Principle II	Mining activities must not be carried out without official permits (ibid, Clause 2).
Principle III	A mineral exploration mission must, fully evaluate the mineral deposits and quality of the minerals on the site during the exploration process (ibid, Clause 3).
Principle IV	Investment criteria on mineral activities must be based on the criteria of socio- economic effectiveness and environmental protection, and use advanced mining technology suitable to the project in order to recover minerals to the maximum (ibid, Clause 4).

Box 1: Four principles of mining in the Mineral Law (Vu, IOER)

Benefits of localities and people

The MinL 2010 is also concerned with mitigating the social impacts of mining projects and stipulates that mining projects shall generate socio-economic benefits for the localities where the operation takes place¹⁷. The State is responsible for allocating the revenues to specifically support the socio-economic development of the region (Art. 5, Clause 1). Decree 164¹⁸ on environmental protection fees for mineral extraction requires that both the area directly and adversely impacted and those areas influenced by mineral extraction activities which are located within communal-level and district-level administrative divisions shall benefit from the fees collected (Art. 8, Clause 1, lit. d, Decree 164).

The following obligations are addressed to the mining companies:

Firstly, they shall contribute to investments in the upgrading, maintaining and building of technical infrastructure facilities that are used by the mining activities, and they shall implement social welfare works for localities in which minerals are exploited (ibid, Art. 5, Clause 2, lit. a). In this regard, Decree 158¹⁹ lists the following objects of welfare works: schools, health facilities, cultural establishments, clean

¹⁷ As mentioned before and according to Art. 8, Clause 1, lit. d of Decree 164, the environmental protection fee shall benefit both the area directly and adversely impacted as well the areas influenced by mineral extraction activities within communal-level and district-level administrative divisions.

¹⁸ The Government's Decree No. 164/2016/ND-CP, dated 24 Dec 2016, on environmental protection fees for mineral extraction.

¹⁹ The Government's Decree No. 158/2016/ND-CP, to guide the Law on Minerals (Decree 158).

water supply systems; environmental treatment works (Art. 15, Clause 2, lit. b Decree 158). Expenditure assisting the community shall be included in the company's production costs (Art. 16, Clause 3 Decree 158). Secondly, the mine owner shall especially combine mineral exploitation operations with the construction of technical infrastructure, as well protecting and rehabilitating the environment according to the approved investment project dossier. If the company causes damage to the technical infrastructure, or to the property of others, it shall be responsible for repair, maintenance, reconstruction or compensation according to the level of damage and to legal provisions (Art. 5, Clause 2, lit. b, MinL 2010). Thirdly, the mining companies shall give priority to employing local workforce for its mining operations and related services (ibid, lit. c). Lastly, it shall coordinate with local administrations to assure a change of jobs for local people whose land is exploited for mining (ibid, lit. d).

Such compensation, support and resettlement for expropriated land users whose land is taken for mining projects shall comply with the Land Law²⁰ and other relevant regulations, according to Art. 5, Clause 3 MinL.

3.2 Establishment of Mineral Strategies and Mineral Plans

In accordance with Art. 4, Clause 1 MinL, mineral activities must comply with the conditions of the mineral strategies and plans (see above).

3.2.1 Mineral Strategies

The mineral strategies are explained in Art. 9 MinL, which prescribes that these strategies shall adhere to the principles of environmental compatibility and protection, security strategies, sustainability, economics, regional master plans and geological baseline surveys of minerals (ibid, Clause 1, lit. a-d).

The mineral strategies are developed for a period of 10 years, with a vision towards the next 20 years (Art. 9, Clause 3 MinL). They shall contain, among other content, the objectives and orientations for the geological baseline surveys of minerals, for the economic and rational use of minerals in the strategy period, for the protection of unexploited minerals and national mineral reserves as well the tasks thereto, for the exploration and mining of each group of minerals, for post-mining processing, the rational and economical utilization of minerals and national mineral reserves (cf. Art. 9, Clause 2, lit. a-c MinL 2010).

The Ministry of Natural Resources and the Environment (MONRE) shall assume the prime responsibility for this task, as well as coordinating the various ministries of concern (industry and trade, construction,

 $^{^{20}}$ The National Assembly's Law No. 45/2013/QH13, dated 29 Nov 2013, on land (LandL 2013 or LandL).

planning and investment, etc.), relevant institutions and affected localities. Finally, the ministry presents the elaborated mineral strategy to the prime minister for approval (Art. 9, Clause 4). The ongoing mineral resources strategy to 2020 was approved in 2011 by Decision 2427²¹.

3.2.2 Mineral Master Plans

On the basis of the mineral strategies (Art. 10, Clause 2; Art. 11, Clause 2, lit. a Decree 158), the government mandates competent public institutions to prepare and submit four kinds of master plans (Art. 10, Clause 1 MinL) which are explained in more detail in Articles 11-13 of the MinL 2010:

- a) Master plans on geological baseline surveys of minerals (Art. 10, Clause 1, lit. a; detailed in Art. 11);
- b) National master plans on mineral exploration and mining (Art. 10, Clause 1, lit. b; detailed in Art. 12);
- c) National master plans on the (i) exploitation and utilization of each kind or group of minerals for use as construction materials, and (ii) national master plans on exploitation and utilization of each kind or group of other minerals (Art. 10, Clause 1, lit. c; detailed in Art. 13);
- d) Provincial-level master plans on mineral exploration, mining and utilization (Art. 10, Clause 1, lit. d, detailed in Art. 10 and 11 Decree 158).

Articles 10 and 11 of Decree 158²² prescribe the relevant division of competences between the central and local State authorities involved:

- a) The Ministry of Natural Resources and Environment (MONRE) will preside over the planning of the geological baseline mineral survey (Art. 10, Clause 1, lit. a Decree 158),
- b) The Ministry of Industry and Trade (MOIT) is the chair for the planning of exploration, extraction, process and use of minerals, except for those minerals for use as building materials (ibid, lit. b),
- c) The Ministry of Construction (MOC) shall chair the planning of exploration, extraction, process and use of minerals as constructional materials (ibid, lit. c),
- d) The competent provincial authorities for planning for the exploration, extraction and use of minerals in the provinces and independent cities shall chair the planning regarding the following kinds of minerals: (i) minerals used as normal construction material, peat coal, (ii) minerals in zones defined as areas with small-scale and dispersed minerals, and (iii) minerals at the waste dump sites of mines subject to decisions on mine closure (Art. 11, Clause 1, lit. a, b, c).

Neither the MinL nor Decree 158 provides a specific list of minerals within the scope of the MoIT's planning authority. The respective details are provided in Decree 24a²³ which defines two kinds of building materials, namely *key* building materials and *normal* building materials. Key building materials include stone used for the production of stone slabs, lime, silica sand, kaolin, white clay, feldspar, fire-

²¹ The Prime Minister's Decision No. 2427/QD-TTg, dated 22 Dec 2011, on approving mineral resources strategy to 2020, with a vision toward 2030 (in the following: Decision 2427).

²² The Government's Decree No. 158/2016/ND-CP, dated 29 Nov 2016, on guidelines for the Law on Minerals.

²³ The Government's Decree No. 24a/2016/ND-CP, dated 5 Apr 2016, on Building Material Management (Decree 24a).

resistant clay, dolomite, bentonite and other types of minerals as cement (including stone and clay used for the production of cement and cement additives) (Art. 3, Clause 6, Decree 24a) which is in the planning domain of the Ministry of Construction. Minerals for use as normal building materials are listed in Art. 64, Clause 1 MinL (ibid, Clause 7).

The MinL prescribes a strategic environmental assessment document (SEA) as a basis for the establishment of the *national master plans on mineral exploration and mining* and Art. 10, Clause 1, lit. b (Art. 12, Clause 2, Lit. e). The same applies for the *national master plans on the exploitation and utilization of each kind or group of minerals for use as construction materials, and national master plans on exploitation and utilization of each kind or group of other minerals under Art. 10, Clause 1, lit. c (Art. 13, Clause 2, lit. d)²⁴. As the MinL refers to the Law on Environmental Protection for details of the SEA, the topic will be discussed in Chapter 4.4 of this study.*

Referring to Art. 15 of the MinL, Decree 158 stipulates in Art. 12 that a consultation must take place between relevant State bodies (note: no public consultation). Before presenting national master plans under Art. 10, Clause 1, lit. a, b, and c, the planning agency must facilitate consultations with concerned ministries, ministerial-level agencies and provincial-level People's Committees (Art. 15, Clause 1, lit. a, MinL). According to Art. 12, Clause 1, lit. a of Decree 158, such consultation includes the Ministry of Planning and Investment, the Ministry of Finance, the Ministry of Public Security, the Ministry of National Defense, the Ministry of Transport, the Ministry of Agriculture and Rural Development, the Ministry of Culture, Sports and Tourism, and the People's Committee of the province with the targeted localities. The authority that chairs the establishment of the mineral master plan shall publicly post the planning presentation on its website for consultation with the people and enterprises. This must be done at least 45 days before presenting the mineral master plan for approval (Art. 12, Clause 1, lit. a). The agencies in charge of the master plans defined at Point d, Clause 1, Art. 10 of the MinL shall collect opinions on the master plans from the Ministry of Natural Resources and Environment and concerned ministries and ministerial-level agencies before submitting them for approval.

In respect of the provincial mineral master plans, the provincial People's Committee shall consult the MoNRE and the MoC. If the plans touch the boundaries of adjacent provinces or of independent cities, the responsible planning agency must also consult that province's or city's People's Committees (Art. 12, Clause 1, lit. b).

²⁴ See especially Sections 3.6 and 4.4 of the study.

Decree 158 does not stipulate public consultation for either national or provincial planning before its approval. However, after approval of the provincial or national planning and within 30 days after the approval date, the authority in charge shall publicly announce the plans on official governmental websites, and on the website of the respective authority (Art. 12, Art. 4, lit. a), as well holding a press conference at its headquarters (ibid, lit. b). Decree 24a on the management of building materials also prescribes the same in Art. 15 and 26. The Decree also does not prescribe a public consultation process or the provision of information to the public before the planning is approved, or as a point of reference for the appraisal of the planning.

The prime minister is the authority to approve national mineral master plans under Art. 10, Clause 1, lit. a, b, and c (Art. 15, Clause 1, lit. a), whereas the provincial People's Council shall approve the provincial master plan under Art. 10, Clause 1, lit. d (Art. 12, Clause 2, Decree 158).

In the following, an overview is given of those mineral master plans that impact on the sector of construction aggregates.

Master plan on geological baseline surveys of minerals

The elaboration of the master plan on geological baseline surveys of minerals is regulated in Art. 11 MinL. With a time frame of 10 years and a perspective of 20 years, the master plan on geological baseline surveys of minerals serves as a guide for the development of national master plans on mineral exploration and mining. Therefore, it shall comply with socio-economic development, national defense and security strategies as well as plans, regional master plans and mineral strategies and shall be based on these documents. The master plan shall also respect the achievements resulting from the implementation of the preceding master plan, and new mineral-related geological discoveries.

As a dossier, the master plan shall contain a geological survey and topographic map at a scale of 1:50,000, as the basis of a systematic, geological database for minerals; identify the potentials of each kind and group of minerals and promising mineral areas; assess the impacts of implementing the previous master plan; provide for investments to improve equipment, technologies and scientific methods; propose solutions and scheduling of activities. In 2013, the prime minister approved the ongoing master plan on geological baseline surveys of minerals until 2020, with a perspective until 2030²⁵.

²⁵ The Prime Minister's Decision No. 1388/QD-TTg, dated 13 Aug 2013, on approving the master plan on geological surveillance to the year 2020, with a perspective until 2030 (Decision 1388).

Master plans on mineral exploration and mining

The national master plans on mineral exploration and mining are regulated in Art. 12 MinL. Whilst developing these plans, the socio-economic development priorities, national defense and security strategies, as well as plans, regional master plans and mineral strategies must be observed and the protection of the environment, natural landscape, historical-cultural relics, scenic places and other natural resources must be respected. The foundations for the elaboration of these plans include socio-economic development, regional master plans, mineral strategies and master plans on mineral-using industries, as well as the results of geological baseline surveys of minerals, scientific and technological advances in mineral exploration and mining respectively (Art. 12, Clause 2, MinL 2010).

A national master plan on mineral exploration and mining shall have a time span of 5 years with a future perspective of 10 years (Art. 10, Clause 2). It includes studies and assessments of national and socio-economic conditions, as well as the current state of mineral exploration, mining, processing and utilization. In addition, it includes an evaluation of the mineral potential of the already investigated and explored mineral needs of the various sectors and an evaluation of the implemented master plans. It also provides guidance and targets for exploration and mining in the period of planning. Insofar, it shows mineral activity areas, with small-scale and scattered mineral areas, specifies the areas where mineral activities are prohibited or temporarily banned, and locates the areas of national mineral reserves. Furthermore, the master plans provide solutions for implementation and a respective schedule (Art. 12, Clause 3).

National master plans on the exploitation and utilization of each kind or group of minerals for use as construction materials or other minerals

Art. 13 MinL 2010 regulates the national master plans on the exploitation and utilization of each kind or group of minerals for use as construction materials as well as national master plans on the exploitation and utilization of each kind or group of other minerals. For the plans, a 5-year period and a vision of up to 10 years shall be applied (Art. 10, Clause 2, lit. b) MinL 2010.

The plans shall refer to socio-economic development, national defense and security strategies as well as plans, regional master plans, mineral strategies and national master plans on mineral exploration and mining (Art. 13, Clause 1, lit. a, MinL 2010). They shall be elaborated on the principle of a rational, economical and efficient exploitation and utilization of minerals, taking into account present and future mineral needs (ibid, lit. b). The protection of the environment, natural landscape, historical-cultural relics, scenic places and other natural resources also have to be considered (ibid, lit. c). If a mineral is used for different purposes, this is to be specified in one master plan only (ibid, lit. d).

The basis for the development of these plans are other mineral strategies and national master plans on mineral exploration and mining, the mineral processing and utilization needs of various industries, scientific and technological advances in mineral exploration and mining, and the results of the implementation of the previous master plans and strategic environmental assessment (SEA) results (cf. Art. 13, Clause 2, lit. a-d, MinL).

Art. 13 MinL requires that the plans must contain a survey, study, summary and assessment of the current state of exploration, exploitation, processing and utilization of the respective kind or group of minerals in mineral activity areas (ibid, Clause 3, lit. a). It shall evaluate the implementation of the preceding period's master plan (ibid, lit. b). Furthermore, it must identify the mineral demand and supply in the planning period (ibid, lit. c), as well locate the mining areas and kinds of minerals in which mining investment should be made. A mineral mining area shall be delimited with lines connecting corner points drawn on a topographic map using the national coordinate system at an appropriate scale (ibid, lit. d). Moreover, the mining scale and capacity and requirements on mining technologies have to be identified (ibid, lit. e). Finally, the solutions and schedule for the implementation of the master plan shall be provided (ibid, lit. f).

The Ministry of Construction is responsible for the master plan on extraction of minerals for use as building materials (Art. 10, Clause 1, Decree 158) which is once again confirmed by the Government's Resolution 81²⁶ such that the MoC is the agency to process the State management of the planning of building materials (Art. 1). Inside the ministry, the Department of Building Materials was established to direct, implement and advise the Minister of Construction in the strategy, planning and coordination of the development of the sector of building materials (Art. 1, 2, MoC-Decision 976²⁷). More precisely, Decree 24a on the management of building materials assigns to the MoC the task of organizing the elaboration of a) the master plans for development of building materials in Vietnam, and b) planning for development of "key building materials" (Art. 11, Clause 1, lit. a, b) which, in turn, involves (i) planning for the survey, extraction and use of minerals as *cement*, and (ii) planning for the survey, extraction and use of minerals as key building materials excluding minerals as cement (Art. 16, Clauses 1 and 2). "Key building materials" are interpreted as "mainly composed of stone used for the production of stone slabs, lime, silica sand, kaolin, white clay, feldspar, fire-resistant clay, dolomite, bentonite and other types of minerals as cement (including stone and clay used for the production of cement and cement additives) which are planned throughout the country" (Art. 3,

²⁶ The Government's Resolution No. 81/2017/ND-CP dated 17/07/2017 defining the functions, tasks, powers and organizational structure of the Ministry of Construction (Resolution 81).

²⁷ The Ministry of Construction's Decision No. 976/QD-BXD dated 9/10/2013 defining the functions, tasks, powers and organizational structure of the Department of Building Materials (MoC-Decision 976).

Clause 6). Regulations for the elaboration, the basis and content of these kinds of master plans are provided in the Clauses 2, 3, and 4 of Art. 11, Decree 158. The responsible agencies may employ qualified consultants to craft the planning for building material development (Art. 11, Clause 3, Decree 24a).

Provincial master plans on mineral exploration, mining and utilization

The MinL 2010 requires that the government shall provide for the elaboration of provincial master plans on mineral exploration, mining and utilization (Art. 10, Clause 1, lit. d and Clause 3), targeting a period of 5 years with a future perspective of 10 years (Art. 10, Clause 2, lit. b; MinL 2010).

The People's Committees of provinces and competent cities shall preside over such planning of raw minerals for use as normal construction materials, peat coal or minerals in zones defined as areas with small-scale and dispersed minerals, or minerals at the waste dump sites of mines subject to a decision on mine closure (Art. 11, Clause 1, Decree 158). Using another term, Decree 24a requires that the People's committees of provinces shall organize the establishment of development planning for building materials in "localities", under the presidency of the provincial Department of Construction (DoC) (Art. 11, Clause 2). In a subsequent Article, the DoC is assigned to be responsible for the planning, survey, extraction and use of minerals as "normal building materials" of independent cities and provinces (Art. 16, Clause 3). In this respect, the term "normal building materials" is interpreted in Art. 3, Clause 7 of Decree 24a such that it refers to Art. 64, Clause 1 of the MinL 2010. This clause provides a list of minerals for use as normal construction materials, as follows:

- a) All types of sand, with or without calcite, wolframite and monazite,
- b) Clay for the production of bricks and tiles according to the Vietnamese standards and technical regulations,
- c) Sandstone and quartzite stone with SiO2 content of less than 85%, including metallic minerals and native metals,
- d) Sedimentary rocks of different kinds, magma rocks, metamorphic rocks,
- e) Schist of different kinds,
- f) Pebbles, gravel and dust not containing gold, platinum, gemstones and semi-gemstones,
- g) Limestone, chalky clay and marbles,
- h) Dolomite stone with MgO content of less than 15%.

Thus, the specific domain of responsibility and decision-making power of the provinces is made clear. However, such planning requires consent from the MONRE. In other words, notwithstanding that the provincial government is assigned the power to grant licenses for small-scale mining projects, the MONRE must accept and publish the respective list of projects (Art. 82, Clause 2 MinL 2010). At this point, Article 53 MinL stresses that if a mineral area allows for large scale mining in an effective way, the granting of mining licenses may not involve its division between many organizations or individuals for small-scale mining (ibid, Clause 1, lit. b).

Regarding the current situation in Hoa Binh province, the master planning of construction aggregates refers to two documents:

- 1) The People's Committee of Hoa Binh Province's Decision No. 286/QD-UBND, dated 20 Mar 2012, on approval of the development plan of construction materials in Hoa Binh province until 2020 (HB-Decision 286).
- 2) The People's Council of Hoa Binh Province's Resolution No. 76/2013/NQ-HDND, dated 11 Dec 2013, on the plan for the exploration, exploitation and utilization of three types of construction materials: construction materials, brick-making materials, construction materials in Hoa Binh provincial households: stone building materials, period 2014 to 2019, with a perspective towards 2024 (HB-Decision 76).

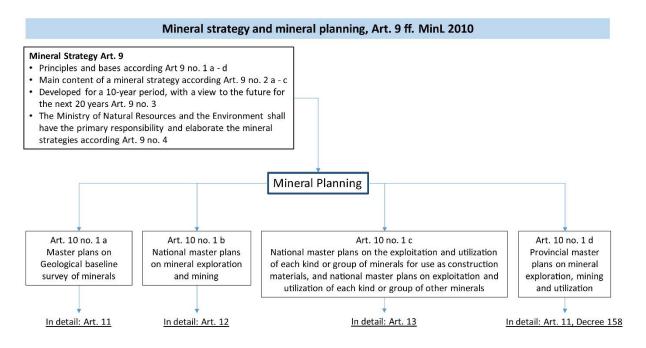


Figure 2: Mineral strategy and mineral planning under the Mineral Law (Füssel, Vu, IOER)

3.3 Protection of Unexploited Minerals

The protection of as-yet unrecovered minerals covers a whole chapter in Articles 16-20 of the MinL 2010, and the administrative content of protective measures is further specified in Article 18 of Decree 158. The protection of unexploited minerals is obligatory to all individuals and organizations engaged in mining activities. The mining company shall apply advanced technologies that are suitable for the size and properties of the mine and the type of the mineral. All minerals that were explored as well as minerals that were discovered during the process of exploitation, have to be evaluated and reported to the competent licensing State authority (Art. 17 MinL 2010).

A peculiar means of protecting as-yet unexploited minerals is that, during the mineral exploration, the operations have to be restricted to the approved area which is facilitated by mapping or demarcation of the corner points based on the coordinates noted in the mining license (Art. 20, Clause 1, Decree 158) and respecting communal administrative borders (ibid, Clause 2, lit. a).

3.4 Geological Baseline Surveys

According to the terminology of the MinL 2010, the geological baseline survey on minerals involves studying, investigating and evaluating the mineral potential as a scientific basis for explorative mining activities (see Art. 2, Clause 4). This also requires the development of human resources, scientific research, deployment and development of related survey technologies (Art. 3, Clause 3). Furthermore, the State shall provide incentives for private parties to participate and invest in such surveys (ibid, Clause 4).

The State shall conduct geological baseline surveys according to the approved master plan at the expense of the state budget (Art. 21, Clause 1 MinL 2010). The survey's execution is assigned to the MOIT, while the prime minister approves the results (ibid, Clause 2). In the following, the MinL prescribes the principal content of such surveys (Art. 22), the rights and obligations of the survey conductors (Art. 23), and the main principles of undertaking a survey as a privately invested project (Art. 24).

The public administration is responsible for providing mineral-related information as stored in the national geological archives (Art. 6, Clause 1) to private organizations and persons, in accordance with the law (Art. 7, Clause 1). However, this public service is subject to regulated charges (ibid, Clause 2). This is the case if such information is used for the exploration or mining of minerals (ibid, Clause 3). It is necessary to get permits in order to undertake geological baseline surveys (Art. 8, Clause 3).

Geological baseline studies are not implemented in an isolated manner. The results of such studies are considered in mineral strategies (MinL 2010, Art. 9, Clause 1, lit. d), and lead to guidance and objectives (ibid, Clause 2, lit. a), as well influencing strategy (ibid, lit. b) and prescribing tasks and principal solutions with regard to further survey activities, protection of as-yet unexploited minerals, exploration and mining of minerals, and the proper processing and efficient utilization of these natural resources following their extraction (ibid, lit. c). The geological baseline surveys affect the mining sector in a substantial way as they represent the basis of mineral strategies which are, in turn, elaborated for 10 years, with a perspective of 20 years alongside the socio-economic master plan (ibid, Clause 3).

Further details on the procedures and responsibilities are prescribed in Articles 3, 4, 5, 7, 13 and 14 of Decree 158. The Monre is given the prime responsibility for the elaboration of geological baseline

studies on minerals (Art. 10, Clause 1, lit. a, Decree 158). Further detailed regulations are prescribed by the MONRE's Circular 66²⁸.

3.5 Classification of Mining Areas

The national planning on mineral exploration and mining shall classify specific areas as related to mining activities: mineral activity areas, areas banned from mineral activities, areas temporarily banned from mineral areas and national mineral reserve areas (cf. Art. 12, Clause 3, lit. e and f MinL 2010). All mining areas have to be mapped properly.

Mining activity areas

Mining activity areas are land plots in which geological baseline surveys of minerals have been conducted and which have been delimited by competent state agencies in the master plan mentioned in Art. 10, Clause 1, lit. b, c, or d and in Art. 26, Clause 1 MinL 2010. According to Art. 26, Clause 2 Sent. 1 MinL, mineral exploration and mining may be restricted if required for national defense and security assurance; prevention and mitigation of impacts on the environment, natural landscape and historical-cultural relics; or the protection of special-use forests or infrastructure facilities. The restrictions may refer to organizations and individuals allowed to conduct exploration and mining (a); mining output (b); mining duration (c) and mining areas, depth and methods (d). Competent licensing state management agencies specified in Art. 82 MinL shall decide on ways of restricting mineral activities at the request of ministries and ministerial-level agencies (Art. 26, Clause 2 sent. 2 MinL).

Small-scale and dispersed mining areas

A special category is "areas with small-scale and scattered minerals". In such zones, only small-scale mining is permitted. This, in turn, is defined on the basis of mineral prospection results during the period of conducting geological baseline surveys of minerals or mineral exploration results as approved by competent state agencies. An area with small-scale and scattered minerals shall be delimited by lines connecting corner points drawn on a topographic map using the national coordinate system at an appropriate scale (Art. 27, Clause 1 MinL 2010). The government shall specify the delimitation of areas with small-scale and scattered minerals (Art. 27, Clause 2 MinL 2010). Decree 158 defines "small scale" and "dispersed" mineral mines in more technical terms. In Appendix I of the decree, a list is provided for the prospected ceiling values of mineral reserves at the respective mineral deposit. It should be noted here that a floor value is not prescribed therein. The category of areas with small-scale and scattered minerals is peculiarly important for local government, which is responsible for

²⁸ The MONRE's Circular 66/2014/TT-BTNMT dated 31 Dec 2014 providing regulations on the procedures of appraising and approving the projects and reports on the results of geological baseline studies (Circular 66).

elaborating the master plans of small-scale and dispersed mining within its domain. However, a mineral area in which large-scale mining can be effective may not be divided for the granting of mining licenses to many organizations or individuals for small-scale mining (Art. 53, Clause 1 a, MinL).

Areas banned from mineral activities

Another type of area are those in which mineral activities are banned or temporarily banned (Art. 28, MinL). Areas where mineral activities are generally prohibited include areas with historical-cultural relics, protected forests, areas for national defense, areas used by religious institutions, as well as areas containing a protective corridor or zones for transport, water supply, drainage and waste treatment plants, power transmission lines, petrol, oil or gas pipelines and communication systems.

Areas *temporarily* banned from mineral activities shall be delimited for reasons of a) satisfying defense or security requirements, b) conserving nature, historical-cultural relics or scenic places which are recognized by the State or discovered in the process of mineral exploration or mining and / or c) preventing or remedying consequences of natural disasters (Art. 28, Clause 2 MinL).

Provincial-level People's Committees shall delimit and propose to the prime minister areas that should be banned from mineral activities or temporarily banned from mineral activities, after consulting the Ministry of Natural Resources and Environment and concerned ministries and ministerial-level agencies (Art. 28, Clause 5 MinL).

If an area is declared a prohibited area for mineral activities, organizations and individuals who have carried out mineral activities in the area have a right to compensation, according to Art. 28, Clause 3 MinL 2010. If it is necessary to undertake mineral activities in such an area, for example, to investigate or exploit minerals, the competent licensing state management agencies may, pursuant to Article 82, submit the relevant mineral planning to the prime minister for examination and a decision, Art. 28, Clause 4 MinL 2010.

National mineral reserves areas

National mineral reserves are areas with unexploited minerals, which are identified based on the results of geological baseline surveys of minerals and mineral exploration according to Art. 29 Clause 1 MinL 2010. These areas include areas with minerals which should be reserved for sustainable socioeconomic development and areas with minerals which cannot be effectively exploited yet due to unsuitable conditions or which can be exploited but remedies for adverse environmental impacts are not available. In general, the Ministry of Natural Resources and Environment (MoNRE) is responsible for chairing and collaborating with other concerned ministries and ministerial-level institutions to delineate and submit reports on the national mineral reserve areas for the prime minister's approval

(Art. 29 Clause 2 MinL). Referring to Art. 29, MinL, the government has defined national reserve areas which shall be excluded from ongoing planning activities, promulgated as per Decision 645/QD-TTg²⁹.

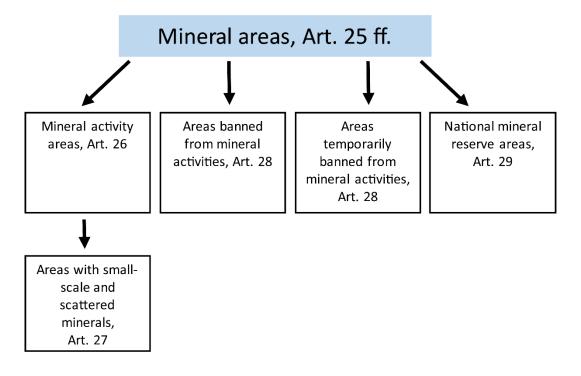


Figure 3: Classification of mineral areas (Füssel, IOER)

3.6 Environmental Protection under the Mineral Law

The MinL 2010 stipulates that the protection of the environment is a central task in mining activities, and shall be part of (i) public strategies and planning, and of (ii) individual mining projects. Additionally, the State and the mining investor shall take into account the socio-economic dimension, and especially reduce and mitigate adverse impacts on the local community near the mining activity. The main prescriptions of the MinL regarding the topic of environmental protection in mining activities are provided in Articles 30 and 32 of the Mineral Law. There are also a number of mandatory fees and charges to support measures of environmental protection in mining activities as discussed in Section 3.10 on fees and charges.

3.6.1 Environmental Protection in Mineral Activities, Deposit for Environmental Rehabilitation and Restoration

Article 30 MinL prescribes that organizations and individuals working in mining operations shall use environmentally friendly technologies, equipment and materials. They shall apply solutions to prevent

²⁹ The Prime Minister's Decision 645/QD-TTg, dated 6 May 2014, on approving the national mineral reserve areas (Decision 645).

and mitigate adverse impacts on the environment and, according to the law, invest in the upgrading and restoring of the environment (Art. 30, Clause 1).

Organizations and individuals engaged in mineral activities shall apply solutions and bear all costs for environmental protection, rehabilitation and restoration. These solutions and costs must be identified in investment projects, environmental impact assessment reports and environmental protection commitments and have to be approved by competent state agencies (ibid, Clause 2).

Before starting the mining operation, mining organizations and individuals must pay a deposit for rehabilitation and restoration according to the government's regulations (ibid, Clause 3). Accordingly, Art. 4, Clause 1, Decree 19³⁰ provides that every organization and individual engaged in mineral mining has to have a project on environmental remediation and restoration, and has to pay a deposit for environmental protection – both must have been approved by the competent authorities.

With regard to mineral mining, organizations or individuals have to deposit an amount of money in the Vietnam Environment Protection Fund or the local environmental protection fund (referred to as the environmental protection fund) to ensure organizations and individuals assume responsibility for the environmental renovation and restoration necessary due to mineral extraction activities (Art. 3, Clause 2, Decree 19). Further details are provided in Art. 8 of the same decree.

Connected to this topic is Circular 38³¹ by the MoNRE, to regulate the "paying of a deposit for the environmental rehabilitation fund" for mineral mining activities (ibid, Art. 1, Clause 2), as applied to state organs, organizations and individuals carrying out mineral mining activities (ibid, Art. 2). In the following, Art. 12 of the same circular prescribes the calculation of the deposit – in total (Clause 1), annually (Clause 2), including the factor of price slippage (Clause 3) and regulating the duration of the deposit (Clause 4). The deposit method is covered in Art. 13. Regarding the time of payment, mineral entities shall make the first deposit within 30 working days after approval of the plan or additional planning [on environmental rehabilitation and restoration] (Art. 14, Clause 1, lit. a). Having received a new mineral mining permit, the miner shall make the first deposit before the registered starting date of basic mine construction (ibid, lit. b). In case of deposits being made several times, the second deposit onwards must be paid before 31 January of the deposit year (ibid, lit. c). The concerned environmental protection fund is responsible for checking the correctness of the deposit and issuing a certificate

³¹ The Ministry of Natural Resources and Environment's Circular 38/2015/TT-BTNMT, dated 30 Jun 2015, on environmental remediation and restoration in mineral mining activities (Circular 38).

³⁰ The Government's Decree 19/2015/ND-CP, dated 14 Feb 2015, detailing the implementation of a number of articles of the Law on Environmental Protection (Decree 19).

accordingly (ibid, Clause 2, lit. b). Lastly, deposit refunding is regulated, in accordance with Art. 8, Decree 19 as discussed above (ibid Art. 15, Clause 1, lit. a).

In 2017, the MoF promulgated Circular 08³² to guide the management and usage of the environmental protection deposits.

3.6.2 Use of Land and Infrastructure in Mining Activities

As a further condition, organizations and individuals engaged in mining activities shall rent land according to the Land Law, unless the land surface layer is not used or the mineral activities do not affect the use of the land surface by other organizations and individuals that are lawfully using such land (Art. 31, Clause 1). The duration of the land lease for mining activities is related to the time regime of the mining license, e.g. expiration, adjustment. The technical infrastructure, such as transport, communications and electricity systems may be used by the mining entity in accordance with the law (ibid, Clause 2).

Land ownership is regulated in Art. 4 of the Land Law (2013)³³ which states that land belongs to the entire people with the State acting as the owner's representative and uniformly managing the land. The State shall hand over land use rights to land users in accordance with this law. According to Art. 5 Clause 1 of the Land Law, land users may be allocated land or leased land, have land use rights recognized by the State, or receive a transfer of land use rights in accordance with this law. In accordance with Art. 6 of the Land Law, the land users shall comply with master plans and plans on land use. The land shall be used for proper purposes, in an economical and effective manner, considering environmental protection and not harming the legitimate interests of surrounding land users. Land users shall exercise their rights and obligations within the land use term according to the provisions of this law and other relevant law provisions.

3.6.3 Use of Water in Mineral Activities

Art. 32 MinL 2010 regulates the use of water in mineral activities by prescribing that every miner is permitted to utilize water by complying with the Law on Water Resources ³⁴ (LWR 2012) (ibid, Clause 1). The source, volume and method of water usage has to be defined beforehand and written in the mineral exploration study, the feasibility study on the investment project and in the mine design (ibid, Clause 2).

³² The Ministry of Finance's Circular No. 08/2017/TT-BTC, dated 24 Jan 2017, providing guidance on the management and use of environmental remediation deposits paid by mining organizations (Circular 08).

³³ The National Assembly's Law No. 45/2013/QH13, dated 29 November 2013.

³⁴ The National Assembly's Law No. 17/2012/QH13, dated 21/06/2012 on water resources.

According to the LWR 2012, measures have to be taken during mine construction to avert and prevent the pollution, degradation and drying up of the water source used (ibid, Art, 26, Clause 3). Mine construction has to comply with provisions on structural safety and geological stability in regard to underground water works (ibid, Art. 62, Clause 3) or constructional works on the banks of water flow bodies (ibid, Art. 63, Clause 1), e.g. when extracting sand or other minerals.

Concerning aggregates mining, Art. 9, Clause 5, LWR strictly prohibits unlawfully exploiting sand and gravel on rivers, springs, canals, ditches and reservoirs; and for mineral exploitation, prohibits drilling, digging, building houses or architectural objects, and undertaking works and other acts in the protection corridor of water sources which lead to landslides at these sites or otherwise cause serious threats thereto.

The usage of surface water and underground water must comply with the planning on water resources (Art. 26, Clause 1), including a) general planning for water resources of the whole country, b) planning for water resources of inter-provincial river basins and inter-provincial water sources, and c) planning for water resources of independent cities and provinces (Art. 15, Clause 1, lit. a, b, c, LWR 2012). The period of planning for water resources is 10 years, with a vision for 20 years (ibid, Clause 3). Among the principles guiding the planning, there is the requirement to connect the planning with environmental protection, the protection of natural landscapes, historical-cultural heritage, scenic places and other natural resources for sustainable development (Art. 16, Clause 1, lit. b). While the basis of the planning for water resources is prescribed in Art. 17 of the law, the following Art. 18 stipulates the content of the water resources planning for the whole country, and Art. 19 is concerned with the content of planning for water resources of inter-provincial river basins, inter-provincial water sources and planning for water resources of provinces. The adjustments of the planning are regulated in Art. 22, LWR 2012. More details are regulated in Art 29 to 31 LWR.

Regarding wastewater treatment, mining facilities are not permitted to release wastewater into water bodies if it has not been treated or not treated according to technical standards and regulations (Art. 33, Art. 2).

Besides protecting the water sources, industrial water users like quarries shall use water in an efficient way (ibid, Art. 49, Clause 1). They are obliged to implement measures that collect and treat wastewater by achieving the required qualities before the treated water is released into the environment and, thus, affects the water resources (ibid, Clause 2).

The LWR 2012 also requires that mining activities must protect water quality (ibid, Art. 33); especially groundwater has to be protected in accordance with the law during explorative drilling (ibid, Art. 35, Clause 1) and exploitation operations (ibid, Clause 2). As a means to protect the water resources and

ensure the safety of human beings, the competent authorities shall be responsible for checking if a bank's area is safe for further mineral extraction or if mining should be banned or temporarily banned here (Art. 63, Clause 2). Further requirements are regulated in Art. 71 to 74.

3.7 Permits for Mineral Activities

"Mineral activities" include mineral exploration and mineral mining activities, Art. 2, Clause 5 MinL 2010. "Mineral exploration" refers to activities to identify mineral deposits and quality and obtain other information for mineral mining, Art. 2, Clause 6 MinL 2010. "Mineral mining" refers to activities to recover minerals, including mine infrastructure construction, excavation, classification, enrichment and other related activities, Art. 2, Clause 5 to 7 MinL 2010.

Both "mineral exploration" and "mineral mining" require a permit. The MoNRE has promulgated several circulars to specify and detail the procedures as well to provide templates and forms, e.g. Circular 45³⁵, Circular 44³⁶, Circular 51³⁷, Circular 38³⁸, Circular 23³⁹, etc.

3.7.1 Mineral Exploration Permit

In this section, an overview is given on the process of granting a mineral exploration permit. In this regard, e. g. the questions arise as to who is responsible for granting the license, which prerequisites must be met by organizations and individuals, which rights and obligations pertain to the license, and what kind of advance payments they have to make. These questions are discussed in Articles 34 to 50 of the Mineral Law and are explained in the following chapter.

Competent authority to approve a license

As the highest authority, the MoNRE is authorized to approve mineral exploration licenses (and mining licenses), in accordance with Article 82 Clause 1 MinL. However, as provided in Clause 2, the provincial People's Committee may determine mineral exploration licensing, licensing for minerals for use as

³⁵ The MoNRE's Circular No. 45/2016/TT-BTNMT dated 26 Dec 2016, providing regulations on mineral exploration and mine closure projects, and templates of reports on mineral activities, documents required for applications for mineral operation licenses and applications for approval for mineral reserves, and mine closure procedures (Circular 45).

³⁶ The MoNRE's Circular No. 44/2016/TT-BTNMT dated 26 Dec 2016 on supervision of mineral exploration projects (Circular 44).

³⁷ The MoNRE's Circular No. 51/2015/TT-BTNMT dated 26 Nov 2015 guiding a number of contents of mining-specific inspection (Circular 51).

³⁸ The MoNRE's Circular No. 38/2014/TT-BTNMT dated 3 Jul 2014 promulgating the supervision procedures on the implementation of projects on geological baseline studies invested by organizations and individuals (Circular 38).

³⁹ The MONRE's Circular No. 23/2012/TT-BTNMT dated 28 Dec 2012, promulgating the "National technical regulations on the elaboration of mineral related maps of 1:50,000 scale on the mainland", with the technical code QCOVN 49: 2012/BTNMT (Circular 23).

common construction materials, peat and minerals in areas with scattered and small-scale minerals already identified and publicized by the MoNRE, and licenses for salvage mining. The latter is defined in Art. 67 MinL as the mining of minerals still in the tailing dump of a mine scheduled for closure. The license for salvage mining is valid for five years at most, including the extended period.

Organizations and individuals eligible for conducting mineral exploration

Before an organization or individual can apply for approval of a license, it must fulfill certain conditions. Art. 34 MinL regulates the conditions under which organizations and individuals are eligible to conduct mineral exploration. In accordance with Clause 1, organizations and individuals that have registered mineral exploration as their business line may be licensed to conduct mineral exploration. They include enterprises established under the Enterprise Law, cooperatives and unions of cooperatives established under the Law of Cooperatives and foreign enterprises with Vietnam-based representative offices or branches. In the case of exploring minerals for use as common construction minerals, business households that have registered mineral exploration as their business line may also be licensed (Art. 34, Clause 2 MinL).

Art. 35 regulates the conditions that mineral exploration practice organizations have to satisfy. In accordance with Clause 1, they must be lawfully established, have a staff of technical workers specialized in geological exploration, hydrogeology, engineering geology, geophysics, drilling, excavation and other relevant disciplines, and have an employee in charge of technical matters who has worked for at least five years in mineral exploration and has deep knowledge about standards and technical regulations on mineral exploration.

Selection of organizations and individuals to conduct mineral exploration

The competent governmental bodies shall select individuals and organizations to conduct mineral exploration in areas that are not subject to the mining right auction (Art. 36, Clause 1 MinL)⁴⁰. The government shall specify the selection of organizations and individuals to conduct mineral exploration (Art. 36, Clause 2 MinL), as implemented by the MoNRE's Circular No. 17/2012/TT-BTNMT, dated 29/11/2012, on conditions for businesses engaged in mineral exploration.

Preparation and description of mineral exploration projects

Individuals and organizations approved in accordance with Article 34 of the MinL 2010 are permitted to carry out field studies, take samples to select the areas for exploration and prepare their mineral exploration projects. Approval for these field studies must be obtained from the provincial-level

⁴⁰ See the section in this report on the topic of "Auction of Mining Rights".

People's Committees in which the area to be explored is located (Art. 37 MinL; see also Circular 17/2012/TT-BTNMT).

The mineral exploration areas are described in detail prior to approval and are delimited by topographical maps using the national coordinate system on a suitable scale (Art. 38, Clause 1 MinL). The law describes the size of the areas to be explored depending on the type of mineral as noted in Art. 38, Clause 2, lit. a to e.

The necessary content of the exploration project is listed in Art. 39 MinL. An appropriate system of exploration methods to identify mineral deposits and quality, mining conditions and processing and utilization possibilities, the volume of explorative work, the quantity and kinds of specimens to be taken for analysis, solutions for environmental protection, labor safety and sanitation during exploration, deposit calculation methods, solutions and a schedule for the implementation of the project, as well as an estimate of exploration costs based on standardized prices, must be provided (Art 39, Clause 1, lit. a to f). The project will be submitted to the MoNRE, which assesses the project. Licensing is only possible after a positive assessment (Art. 39, Clause 2 MinL).

Requirements for granting mineral exploration licenses

Art. 40 MinL sums up the principles and conditions under which mineral exploration licenses are lawfully granted, e. g. concerning the prerequisites of the area of concern in Clause 1, or the preconditions that the organizations or individuals must fulfill to obtain the license in Clause 2. The contents of some of the aforementioned articles are repeated and supplemented in a more concise way.

Especially, there must be no legal mining activity going on, and none of the restrictions against mining activities may pertain (banned, temporarily banned, national reserve areas, etc.) (ibid, Clause 1, lit. a). Additionally, each organization and individual may not receive more than 5 mineral exploration licenses, excluding expired ones (ibid, lit. b).

Art. 40, Clause 2 a) MinL 2010 describes the prerequisites of the mining organizations and mining individuals as already discussed in earlier sections. An organization or an individual can receive a mineral exploration license through selection by the competent authority in accordance with the criteria stipulated under Art. 36 MinL 2010. The selection criteria are stipulated in Art. 25, Clauses 1-4, Decree 158. Another option is that the organization and/or individual win the mineral mining rights in unexplored areas through an auction. The interested party or parties must meet the eligibility conditions for mineral exploration organizations stipulated in Article 35 of the Mineral Law, and the requirements of Circular 17.

Furthermore, the mineral exploration project of the selected organizations and individuals must comply with the mineral master plans (Art. 40, Clause 2, lit. b MinL 2010). In order to secure the financial security of the organization and individuals, it is stipulated that at least 50% of the total investment capital necessary to carry out the mineral exploration project must be equity capital. Business households that have registered mineral exploration as their business line (cf. Art. 34, Clause 2) may explore minerals for use as common construction materials if they fully meet the conditions set by the government, according Art. 40, Clause 3 MinL 2010.

If an exploration license is issued on the basis of these criteria, it is valid for 48 months and may be extended by a maximum of 48 months according to Art. 41, Clause 2. Upon each extension, the organization or individual must return at least 30% of the exploration area stated in the previously granted license. The duration of an exploration license includes the time for implementing a mineral exploration project, the time for submitting the mineral deposit for approval and the time for formulating a mining investment project. If the mineral exploration right is transferred to another organization or individual, the duration is the remaining period of the previously granted mineral exploration license. With the granted license, the organizations or the individuals have special rights and obligations which are explained in Article 42 MinL 2010.

Revocation and invalidation of mineral exploration licenses

The law also provides for licenses to be revoked and invalidated, pursuant to Art. 46 MinL.

A license will be revoked if no exploration takes place within 6 months of the coming into force of the license. A license will also be revoked if the area permitted for exploration is declared to be banned or temporarily banned from mineral activities. Last but not least, the license will be revoked if the organizations or individuals do not comply with their obligations, Art. 46, Clause 1 MinL.

A license will be invalidated if revoked, returned, or the licensed organization is dissolved or the licensed organization or individual go bankrupt. If this is the case, all assets of the organization or individual or the persons concerned must be removed from the area. Thereafter, the soil and the environment are to be rehabilitated. All collected samples and information will be handed over to a competent governmental authority, Art. 46, Clause 2 and 3 MinL.

Mineral exploration dossiers

Applications for the extension or return of mineral exploration licenses, return of a part of the exploration area, or transfer of the mineral exploration rights require the compilation of mineral exploration dossiers. Based on Article 47 MinL, the content of such a dossier shall display the following:

- An application for a mineral exploration license;
- An exploration project in conformity with the master plans specified in Art. 10 MinL;
- A map of the exploration area;
- An environmental protection commitment (in case of exploration of toxic minerals);
- A copy of the business registration certificate;
- A document certifying the applicant's equity capital;
- A document certifying the winning of the mineral exploration right for unexplored areas (in case of winning the mining right through auction) (ibid, Clause 1, lit. a-g).

The necessary content of dossiers for applications for extension, return and transfer of mining exploration rights is stipulated in Art. 47 Clauses 2 to 4 MinL.

Appraisal and approval of mineral deposits

The approval of mineral deposits is regulated in Article 49 MinL. Clause 1 describes the competence to approve mineral deposits. Thus, the National Council for Assessment of Mineral Deposits may approve mineral deposits, which then fall into the licensing competence of the Monre. The government shall stipulate the organization and operation of the National Council for Assessment of Mineral Deposits. Provincial-level People's Committees may approve mineral deposits falling within their licensing competence.

3.7.2 Mineral Exploitation Permit

As already mentioned, approval is required for both mineral exploration and mineral mining (i.e. mineral exploitation). The prerequisites and requirements for granting the mining license are regulated in Art. 51 ff. MinL 2010.

Mining organizations and individuals

Eligible mining organizations and individuals are defined in Art. 51, MinL 2010 and are similar to the organizations and individuals eligible to conduct mineral exploration regulated in Article 34 of the law. However, the representative offices or branches of foreign enterprises in Vietnam are not mentioned in Art. 51 MinL 2010.

Delimitation of mining areas

The mining areas shall be delimited by lines connecting corner points drawn on a topographic map using the national coordinate system of an appropriate scale, Art. 52, Clause 1 MinL. According to Clause 2, the area and depth-based boundary of a mining area shall be drawn up on the basis of a mining investment project suitable to the mineral deposits for which permission for mining design has been received.

Prerequisites for granting mining licenses

The prerequisites for mineral mining designated in Art. 53 are similar to those of Art. 40 for exploration licenses, e.g., mining may only be carried out in areas where no mining activities have yet been approved. In addition, a mineral area in which large-scale mining can be effective, may not be divided and mining licenses granted to many organizations or individuals for small-scale mining (Art. 53, Clause 1, lit. b MinL).

According to Art. 53, Clause 2, lit. a MinL 2010, an investment project to mine minerals in an explored area with approved mineral deposits is required to conform with the master plan specified in Art. 10, Clause 1, lit. b) - d). Furthermore, the project must contain a plan on the employment of professional human resources and advanced and appropriate equipment, technologies and mining methods.

Organizations or individuals must have an environmental impact assessment report or an environmental protection commitment made under the Environmental Protection Law⁴¹ to obtain a mining license, and they must have equity capital at least equal to 30% of the total investment capital of the mining investment project (Art. 53 Clause 2, lit. b and c MinL 2010).

Household businesses may mine minerals for use as common construction materials or conduct salvage mining if they satisfy all the conditions set by the government (ibid, Clause 3), especially, mining should be registered as their business line (ibid, Article 51, Clause 2). Further regulations for household businesses are outlined in Decree 158. The required preconditions are provided in Clause 1 of Article 36, stating that mining projects have to be approved on the basis of a technical feasibility study in an area in line with regional planning (ibid, lit. a) and an approved plan for environmental protection (ibid, lit. b); the maximum output per annum must not exceed three thousand cubic meters per mineral (ibid, lit. c). The MoNRE's Circular No. 45 provides for the necessary official forms.

If a general mineral exploration license is granted, it shall be valid for a period of 30 years and may be extended several times, but then by a maximum period of 20 years (Art. 54, Clause 2, MinL 2010). If a license is transferred to another organization or individual, the mining duration is the remaining period of the mining license previously granted.

Rights and obligations of organizations and individuals licensed for mining

After having obtained a mining license, the owner has the rights and obligations provided under Art. 55 MinL 2010.

⁴¹ The National Assembly's Law No. 55/2014/QH13, dated 13 Jun 2014, on environmental protection (LEP 2014 or LEP).

The *rights* of the owner of a mining license designated in Art. 55, Clause 1, MinL 2010 resemble the rights and obligations of Art. 42 MinL 2010. Particularly to be emphasized are the right to mine minerals under the license granted (lit b), and to store, transport, sell and export the exploited minerals under the applicable law (lit. d). The organizations and individuals that have obtained a license also have the right to rent land under the Land Law, according to the approved mining investment project or mine design (lit. h). With the obtained mining license, the mining right may also be transferred.

The *obligations* stipulated in Art. 55, Clause 2 MinL 2010 also do not differ considerably from those of Art. 42, Clause 2 MinL 2010. Again, the organization or individual must pay a fee for the granting of the mining rights, royalties, and other financial charges, taxes and obligations, etc. (lit. a).

Other obligations are, inter alia, to ensure the schedules stated in the mining investment project and mine design (lit. b); to register the date of commencement of mine infrastructure construction and the date of commencement of mining with the competent state management licensing agencies and to notify the licensing authorities, the People's Committee, at all levels affected by the mining industry (lit. c); to protect the mineral resources and to ensure labor safety and hygiene and to take measures to protect the environment (lit. d); to compensate for damage caused by mining activities (lit. g) and to close the mines, and restore the environment and the soil when the mining license expires (lit. i).

Further *obligations* are stipulated in Article 57 MinL 2010 which deals with labor safety and sanitation in mining activities. Reference is made to the current regulations on occupational safety and health, which must be adhered to by every organization and individual of the mining industry. Furthermore, approved organizations and individuals must draw up rules of procedure which comply with the technical regulations on occupational safety and wastewater disposal. If an accident occurs or the safety of the workplace is jeopardized, the mine operator must immediately take the necessary steps to eliminate the cause of the incident. In an accident, the operator must provide first aid and evacuate people from the dangerous areas. If an incident has occurred, the mine operator shall immediately notify the competent state agencies and protect assets and the scene of the incident.

Revocation and invalidation of mining licenses

Art. 58 MinL 2010 regulates the revocation and invalidity of the mining license, which is similar to the respective regulation for the revocation and invalidity of mineral exploration licenses under Article 46 MinL 2010.

A license may be revoked in the following cases which are regulated in Art. 58, Clause 1:

- If no mining infrastructure has been established 12 months after the entry into force of the license exception of force majeure (lit. a); or
- If mining has not started within 12 months of the proposed date of commencement of mining
 exception of force majeure (lit. b); or
- If the authorized organization or individual does not comply with the above-mentioned obligations of Art. 55, Clause 2, lit. a to g of this Law (lit. c); or
- If the approved area for mining is declared to be banned or temporarily banned from mineral activities (lit. d).

A mining license becomes invalid if it is revoked, expired, withdrawn or if the organization or individual is dissolved or bankrupt, according to Art. 58, Clause 2, lit. a - d of this Law.

When a mining license becomes invalid, the approved organization or individual must remove all remaining assets of their own and related persons from the mining area within 6 months of the date of invalidity. Past this time limit, all remaining assets will belong to the State (Art. 58, Clause 3).

Within the time limit specified in Clause 3, the authorized organizations and individuals licensed for mining shall fulfill the obligations related to the mine closure, environmental rehabilitation and restoration under this Law and under other relevant laws (Art. 58 Clause 4 MinL).

Mineral exploitation dossiers for granting, extending or returning mineral exploitation licenses

Article 59 of the Mineral Law requires the submission of dossiers to apply for the extension or return of mining licenses, return of part of the mining area, or transfer of the mining right. The required content of the dossiers depending on the type is described in Art. 59 MinL 2010.

- 1) A dossier for application for a mining license comprises:
 - An application for a mining license,
 - A map of the mining area and a competent state agency's decision approving mineral deposits,
 - A mining investment project (enclosed with the project-approving decision and a copy of the investment certificate),
 - An environmental impact assessment report or an environmental protection commitment,
 - A copy of the business registration certificate,
 - A document certifying the winning of the mining right (in case of winning the mining right through auction) and
 - A document certifying the applicant's equity capital (Clause 1, lit. a to h).
- 2) A dossier for extension of a mining license comprises:
 - An application for extension of a mining license and
 - A map of mining status at the time of application and
 - A report on mining results by the time of application, on the remaining mineral deposits, and the area requested for further mining (Clause 2, lit. a and c).
- 3) A dossier for return of a mining license or return of part of the mining area comprises:
 - An application for return of a mining license or return of part of the mining area,
 - A report on mining results by the time of return and
 - A mine closure plan, in case of return of a mining license (Clause 3, lit. c and d).

- 4) A dossier for transfer of the mining right comprises:
 - An application for transfer of the mining right,
 - A contract on transfer of the mining right (enclosed with a statement of the value of assets to be transferred),
 - A map of the mining status at the time of application,
 - A report on mining results and fulfillment of obligations by the time of application,
 - Copies of the transferee's business registration certificate and investment certificate (Clause 4, lit. a and e).

Further provisions are regulated in Article 49-57 of Decree 158.

Procedures for granting, extending or returning mineral exploitation licenses

The procedures for the granting, extension or return of mining licenses or return of part of the mining area are stipulated in Art. 60 MinL 2010. At first, the applicants seeking the granting, extension or return of mining licenses or return of part of the mining area shall submit dossiers at competent licensing state management agencies, in accordance with Clause 1. The time limit for processing dossiers of application for mining licenses is 90 days after receiving complete and valid dossiers (Clause 2 lit a). The time limit for processing dossiers for *extension or return* of mining licenses or return of part of the mining area is 45 days after receiving complete and valid dossiers (Clause 2 lit. b). The time for seeking consultations is not included in this period, Clause 2 lit. c.

The government shall detail procedures for the granting, extension or return of mining licenses or return of part of the mining area (ibid, Clause 3). Again, the relevant procedures are to be found in Decree 158. In Article 47 the provincial DoNRE is named as the main agency with regard to the licensing of exploitation of minerals for use as normal construction materials, including utilization of aggregates within the premises of a construction project for its own use, as well as projects on salvage mining (ibid, Clause 3). Additionally, Article 48 prescribes the start and end of the submission process (ibid, Clause 3, lit. a). Article 51 regulates the authorization of the project documents; Clause 1 of Article 57 requires that the procedure of granting, extending or returning a mineral exploitation license relies on templates. The official forms are issued in the MoNRE's Circular 45.

The procedure for granting mineral exploration rights is less complicated than for exploration licensing, and is prescribed in Article 60 of Decree 158 with respect to submitting and receiving the project application (ibid, Clause 1); appraising the project (ibid, Clause 2); reporting and deciding on the project by the competent administrative bodies (ibid, Clause 3); and, lastly, informing the applicant about the result (ibid, Clause 4). In the following, Article 61 is concerned with adjustment of the license; Article 63 deals with aggregates mining within the premise of a construction project for its own usage; and Article 64 governs the granting of licenses for salvage mining.

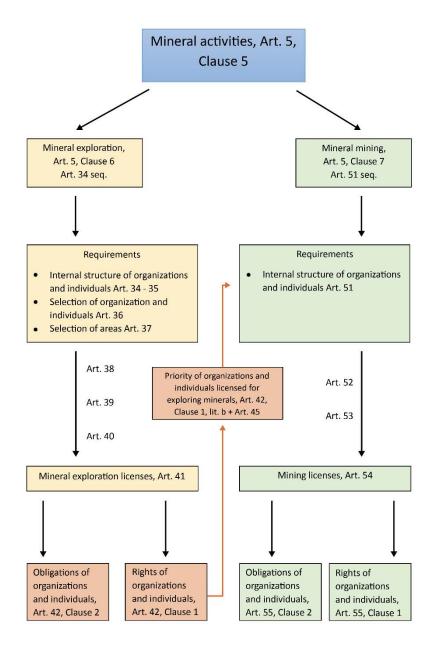


Figure 4: Mining licensing procedure (excl. auction of the mining right) (Füssel, IOER)

Exemptions from the requirements of mining licenses for common construction materials

Organizations and individuals that mine minerals for use as common construction materials are, under certain circumstances, not required to apply for mining licenses.

This is the case when mining minerals in the land area of an approved or licensed investment project that includes constructional works and uses mined products only for building such works (Art. 64, Clause 2, lit. a). Before mining, the concerned organizations and individuals shall register the mining area, capacity, volume, method, equipment and plan with the provincial-level People's Committee. Furthermore, they have to pay a fee for the granting of the mining right (Art. 64, Clause 3, MinL 2010).

Organizations and individuals that mine common construction minerals in the residential land area under the use rights of a household or an individual for building works for such a household or individual within this area are also not required to apply for mining licenses (Art. 64 Clause 2 lit. b MinL 2010).

3.8 Mine Closure

The MinL 2010 requires proper mine closure at the end of the period of the mining license (Art. 55, Clause 2, lit. i). Therefore, Art. 73 MinL provides that the approved organizations and individuals shall establish mine closure plans for the whole or part of the mining area for when they have extracted all or part of the mineral reserves (no. 1), or for when the mining licenses expire while the mineral deposits in the mining area are not fully exploited (no. 2).

The authority that is also competent for the granting of the mining license is responsible for organizing the procedure of appraisal, acceptance and deciding on the successful completion of the mine closure plan (Art. 75 MinL 2010). The plans are sent to the responsible state management agencies defined in Art. 82 of this Law, which then approve these plans before they are implemented (Art. 74, Clause 1, MinL). State management agencies, which are competent to grant mining licenses, shall organize the appraising of results of the mine closure plan as has been projected, and decide on the matter (Art. 75, Clause 1 MinL). In Circular 25⁴², the MONRE prescribes the operational processes for the council to appraise projects of mine closure.

If the organizations or individuals are not able to implement mining closure plans (for example, because they go bankrupt), the competent state management agencies shall select capable organizations or individuals to establish and implement these plans. Funds for implementing the plans come from environmental rehabilitation and restoration deposits of organizations and individuals licensed for mining (Art. 74, Clause 2 MinL). The regulations for this deposit were reviewed in Section 3.6.1.

Clause 2, Article 75 of the Mineral Law requires that the government shall stipulate detailed regulations on this process of approving and implementing mining closure plans. In this regard, the application for approval of the mine closure plans is regulated in detail in Art. 56 of the Decree 158, and specifically by Circular 45 of the MoNRE.

⁴² The MoIT's Circular No. 25/2017/TT-BNTMT, dated 6 Sep 2017, regulating the operations of the appraising council on project proposals for mine closure (Circular 25).

Especially, Chapter III of the Circular 45 (Articles 5-9) focuses on mine closure. Official forms are to be found in the appendix, set No. 2. The mine closure is the responsibility of a committee that appraises the mine closure project (ibid, Art. 6). The committee is established either by the Monre or by the provincial government based on their domain of competence as outlined in Article 82 of the Mineral Law, and Article 45 of Circular 45.

According to Circular 45, the purpose of a managed mine closure is to return the mine site to a safe state, or to protect the mining reserves still available on site, or to liquidate the entire mine reserves (ibid, appendix, official form No. 2, Point 2.1). According to ibid, Point 2.2, the output of the mine closure project includes:

- Synthesis and statistics of all past and current impacts on the mine reserves related to the mining license;
- Certificate of post-mining rehabilitation and restoration according to the approved mining project or the project on environmental reclamation, rehabilitation and restoration in mineral exploitation;
- Current status of the mining area (e.g. mining pits), mine auxiliary works as a basis to identify work items and volume of works;
- Reimbursement of the fee on environmental rehabilitation and restoration that has been previously deposited;
- Scheduling, budgeting and calculation of financing the mine closure project;
- Main works and solutions to be implemented during the mine closure.

The mining company has to submit specific documents to apply for mine closure, including the official application form; the mine closure project description; the status map of the mineral mine; and the documents which prove that mandatory tasks that have been accomplished appropriately (Art. 56, Clause 1, lit. a-d, Decree 158). The documents must be authorized, too, according to ibid, Clause 2.

3.9 State Budget Revenues from Mineral Activities

A mine project encounters a number of financial duties towards the Treasury, especially related to the administrative processing of applications. In fact, individuals and organizations⁴³ have to pay a complex schedule of taxes, fees and charges if they are engaged in the mining sector, providing state budget revenue from mineral activities (cf. Art. 76 MinL). They may also contribute to the consideration of environmental aspects in mineral mining. Art. 76 MinL distinguishes between 1. royalties and taxes under tax laws, 2. charges and fees under law and 3. fees for the granting of mining rights. In addition, the aforementioned deposit for the Environmental Protection Fund on the basis of Art. 30 Clause 2 MinL has to be mentioned in the context of financial instruments in the field of mining.

⁴³ To enter the economic activity of mining in the first place, they have to pay conditional enterprise licensing fees and relevant taxes to run the business.

In aggregates mining activities, a mandatory financial duty is the severance tax, as it has to be paid for the extraction of non-renewable natural resources. The Mineral Law requires in Art. 76, Clause 1 that the mining company shall pay taxes according to the law. In this context, the Law on Severance Tax from 2009 (LST 2009 or LST⁴⁴) applies and regulates tax-liable objects, severance tax payers, severance tax bases, and severance tax declaration, payment, exemption and reduction (Art. 1).

Furthermore, both the MinL and the LEP require financial duties specific for mining activities and environmental protection (cf. Art. 76 Clauses 2 and 3 MinL). General regulations on fees and charges are provided in the Law on Fees and Charges (LFC 2015⁴⁵). According to Art. 1, the LFC shall regulate:

- The list of fees, charges,
- The fee and charge payers (hereinafter referred to as 'payers'),
- Fee and charge collecting agencies (hereinafter referred to as 'collectors'),
- Principles of determination of level of collection, exemptions, remissions, payment, management and use of fees and charges,
- Authority and responsibility of regulatory agencies and other organizations in the management of fees and charges.

For clarification, the LFC provides in Art. 3 the following definitions of the terms "fees" and "charges":

- Fees are an amount of money that shall be paid by organizations or individuals to make up for the expenses incurred for public services provided by regulatory agencies and public service providers as assigned by competent state agencies as prescribed in the list of fees and charges enclosed herewith (ibid, Clause 1).
- Charges are a fixed amount of money that shall be paid by organizations or individuals for public services for the state management provided by regulatory agencies as prescribed in the list of fees and charges enclosed herewith (ibid, Clause 2).

In order to sort the broad schedule of fees and charges, the authors propose distinguishing four kinds of State revenues that arise from mining activities, especially the mining of construction aggregates, as shown in the following table.

 $^{^{44}}$ The National Assembly's Law No. 45/2009/QH12, dated 25 Nov 2009, on severance tax (LST 2009 or LST).

⁴⁵ The National Assembly's Law No. 97/2015/QH13, dated 25 Nov 2015, on fees and charges (LFC 2015 or LFC).

Type 1: Severance tax, required by the Law on Severance Tax 2009	 The Law on Severance Tax → Art. 3, Clause 1 → Gov. Decree 50 → MoF Circular 152 The Mineral Law 2010 → Art. 76, Clause 2 → Gov. Decree 158 → MoNRE Circular 152 → Hoa Binh PPC Decision 2599; Hoa Binh PPC Decision 640 	
Type 2: Fees and charges for granting information and licenses required by the Mineral Law 2010	 Charges on exploitation and use of information → Art. 7, Clause 1 → MoF Circular 190 Mineral exploration – related fees, charges Reimbursement of costs for the geological baseline survey of minerals → Art. 7, Clause 3 → Gov. Decree 158 → MoF Circular 191	
Type 3: Fees and charges required by the Law on Environmental Protection 2014	 Environmental protection fee for mineral extraction → Art. 35, Clause 1; Art. 148, Clause 1 → Gov. Decree 164 Environmental protection fee for producing industrial wastewater → Art. 38, Clause 1, lit. a → Gov. Decree 154 → (Art. 32, Clause 2, MinL) Fee for assessment and approval of the EIA (and additional plans) → Art. 20, Clause 3, lit. b → Decree 56 → (MinL: Art. 30, Clause 2) Compensation for environmental damages and pollution → Art. 35, Clause 1; Art. 164, Clause 3, lit. b, c → Gov. Decree 03 	
Type 4: Deposit for Environmental Protection Funds	 Required by both the MinL and the LEP → MinL: Art. 30, Clause 3, MinL; LEP: Art. 38, Clause 1, lit. dd and Art. 106, Clause 2 → Gov. Decree 19 → MoNRE Circular 38 → MoF Circular 08 	

Box 2: Overview of fees, charges and severance tax and their legal bases (Vu, IOER)

A more complete nomination of general administrative fees, charges and prices applied by the Vietnamese administration is presented in the annex of the Law on Fees and Charges from 2015.

3.10 Auction of Mining Rights

The Mineral Law provides for two ways to obtain mining rights. Either the mining organizations or individuals are selected by the competent state agency (cf. Art. 36 MinL), or the mining rights are gained by winning an auction. To supplement the MinL 2010, the government elaborated Decree 22 and Decree 158.

Decree 22 defines the "auction" as a form of public sale of mining rights (Art. 2, Clause 1). The auction of mining rights is relevant for both unexplored areas and areas for which exploration results as approved by competent bodies are available (Art. 79, Clause 1, lit. a, b, MinL). Most recently, the government specified the respective criteria for identifying areas not subject to auctions of mining rights in Decree 158, Art. 22, Clauses 2 and 3. As requested by Clause 2 of the same article, the government provides for the principles, conditions and procedures for auctions of mining rights in Decree 22.

The planning and declaration of the auction areas are regulated in more detail in Art. 14 Decree 22, and occur along the division of competencies among public bodies as prescribed in Art. 82 of the MinL 2010. In this regard, the provinces and independent cities shall regulate the auctioning of the mining of minerals for use as normal construction materials and the mining of peat, as well of small-scale and dispersed mining areas, in Art. 82, Clause 2 MinL 2010. The MoNRE handles the remaining minerals, and the granting of mineral rights respectively (ibid, Clause 1).

As a result, the MoNRE shall submit the list of areas not subject to auctions of mining rights to the prime minister for approval (Art. 78, Clause 3, MinL; Art. 22, Clause 2, 3, Decree 158) and the provincial PPCs shall implement the same for those areas under their authority (Art. 22, Clause 4 MinL 2010; Clause 2, 3 Decree 158).

The auction procedure is outlined in Articles 14 seq. of Decree 22; as well in the Articles 25, 58 and 66 of Decree 158. An important step is that the responsible ministerial and provincial agencies shall set up a mining rights auction council, whereby the ministerial council is led by the General Department of Geology and Minerals of Vietnam in cooperation with other central ministries (Art. 12, Clause 1 lit. a, b, Decree 22). At provincial level, the auction process is chaired by the provincial PPC and involves the provincial departments of concern (ibid, Clause 2). The concrete authority and responsibilities of the auction council are defined in ibid, Art. 13.

Furthermore, Decree 22 prescribes the rights and obligations of bidders (Art. 10) and winners (Art. 11) of auctions of mining rights. A relevant point is the payment of a deposit as a mandatory condition to

participate in the auction (Art. 4 to 7), which is further supplemented by the Joint-Circular 54 from the Ministry of Natural Resources and Environment, and the Ministry of Finance.

It is noteworthy that Decree 22 differentiates between the auction process and its aftermath, such that the auction itself only grants explorative activities (ibid, Art. 10, Clause 1, lit. a) and access to related mineral information (ibid, lit. b). The auction winners have the right to be issued with the mineral exploration license, as well as the mineral extraction license after having completed the respective application procedures (Art. 11, Clause 1, lit. c).

4. The Law on Environmental Protection

It has been noted above that the MinL 2010 requires the maintenance of environmental protection in mining activities. In this regard, the MinL refers to the regulations of the current Environmental Protection Law⁴⁶ (LEP 2014). This law plays a crucial role for the mining administration and mining industry and will be discussed in this section, focusing on the following topics:

- Environmental protection strategy
- Environmental protection planning
- Strategic environmental assessment
- Environmental impact assessment
- Environmental protection plan

4.1 General Provisions

Before discussing the LEP 2014, it is worth looking into the provisions of the current Constitution of the Socialist Republic of Vietnam regarding the issue of environmental protection. The Constitution postulates that one of the main tasks is to build an independent and self-reliant economy, in close association with cultural development, social progress and justice, *environmental protection*, and national industrialization and modernization (Art. 50, CoVN).

Everyone has the right to live in a clean environment and has an obligation to protect the environment (Art. 43). On the other hand, the polluter pays principle applies, which means that organizations and individuals who cause environmental pollution, natural resource exhaustion or biodiversity depletion shall be strictly punished and shall rectify and compensate damage (Art. 63, Clause 3). Land, water resources, mineral resources, resources in the sea and airspace, other natural resources and property managed or invested in by the State are declared public property owned by all the people, and represented and uniformly managed by the State (Art. 53).

Following the Constitution, the LEP 2014 provides statutory provisions on environmental protection activities, measures and resources used for the purpose of environmental protection. The Law regulates the rights, powers, duties and obligations of regulatory bodies, agencies, organizations, households and individuals who shall take over the environmental protection tasks (Art. 1 LEP 2014).

As prescribed by the LEP, the term *environmental protection* refers to measures of environmental conservation, and the prevention and control of harmful impacts on the environment as a response to environmental emergencies. Further measures target the mitigation of environmental pollution and

⁴⁶ The National Assembly's Law No. 55/2014/QH13, dated 23 Jun 2014 on environmental protection (LEP 2014 or LEP).

degradation, as well as the improvement and remediation of environmental impacts. Furthermore, the proper extraction and consumption of natural resources is mentioned in relation to maintaining a pure environment (ibid, Art. 3, Clause 3). The measures on environmental protection are guided by the following eight principles.

Principle I	Every agency, organization, family household and individual is responsible for and obliged to protect the environment (Art. 4, Clause 1)	
Principle II	Environmental protection to ensure the human right to live in a clean environment must harmonize with economic growth, social security, assurance about children's rights, gender equality, development and conservation of biodiversity, and response to climate change (ibid, Clause 2)	
Principle III Principle IV	Performance of environmental protection is based on the proper consumption of natural resources and minimized generation of waste substances (ibid, Clause 3) Investment criteria for mineral activities must be based on the criteria of socioeconomic effectiveness and environmental protection and use advanced mining technology suitable to the project in order to recover minerals to the maximum (ibid, Clause 4)	
Principle V	Measures must comply with the natural laws and characteristics, cultural and historical identities, and with the level of socio-economic development of the country (ibid, Clause 5)	
Principle VI	Environmental protection activities have to be carried out in a regular manner, and prioritize the prevention and control of environmental pollution, emergencies and degradation (ibid, Clause 6)	
Principle VII	Any organization, family household or individual who uses environment components and profits from the environment is obliged to make their financial contribution to environmental protection (ibid, Clause 7)	
Principle VIII	Any organization, family household or individual who causes environmental pollution, emergencies and degradation is responsible for finding remedial solutions, paying damages and assuming other responsibilities as stipulated by law (ibid, Clause 8)	

Box 3: Eight principles of environmental protection in the LEP (Vu, IOER)

The State policies shall specifically conserve biological diversity, and ensure the extraction and use of natural resources in a proper and economical manner, as well as strengthening recycling and reuse and reducing waste to a minimum (ibid, Art. 5, Clause 3).

Prohibited acts are listed in Article 7, LEP 2014, and most of them are relevant to the aggregates mining industry, such as:

- To ruin and illegally extract natural resources (Clause 1),
- To discharge into water sources hazardous wastewater, waste substances and microorganisms and other poisonous agents which can pose risks to human beings and creatures (Clause 6),
- To discharge smoke, dirt and gas containing toxic agents or smells into the air; emit radiation, discharge radioactivity and allow substances to be exposed to ionization exceeding the acceptable level stipulated in the technical regulations on the environment (Clause 7),

- To generate noises and vibrations in excess of the acceptable level stipulated in the technical regulations on the environment (Clause 8),
- To manufacture and trade products likely to pose risks to human beings, creatures and ecology; manufacture and utilize raw materials and building materials containing toxic agents in excess of the acceptable level prescribed in the technical regulations on the environment (Clause 11),
- To sabotage or infringe upon natural heritage sites and wildlife sanctuaries (Clause 12),
- To wreck structures, equipment and facilities used for environmental protection activities (Clause 13),
- To carry out illegal operations and live in areas defined as banned areas by the competent authority due to their seriously dangerous environment for human beings (Clause 14),
- To conceal acts of environmental depletion as well as interfere with environmental protection and misrepresent information that can cause negative environmental effects (Clause 15),
- To abuse power or authority, or overuse powers or diminish the responsibility of the competent entities so as to infringe upon the regulations on environmental management (Clause 16).

Important instruments to implement the above-mentioned general provisions are environmental planning, strategic environmental assessment, environmental impact assessment and environmental protection plans, as provided in Chapter 2 of the LEP 2014. In this regard, Decree 18^{47} is relevant as it prescribes a number of conditions and measures to implement the regulations on processing the plans for environmental protection, strategic environmental assessment, environmental impact assessment and environmental strategy (Art. 1, Decree 18), to be applied to all organizations and individuals who are involved in such measures, respectively, ibid, Art. 2.

4.2 Strategy for Environmental Protection

The LEP requires that planning for environmental protection shall align with natural and socio-economic conditions, as well with the strategy and general planning for socio-economic development, and maintenance of national defense and security. Furthermore, planning shall also be based on the national strategy of environmental protection to ensure sustainable development (Art. 8, Clause 1, lit. a) LEP 2014.

However, the LEP 2014 does not provide further details on the national strategy of environmental protection. The current valid national strategy on environmental protection is based on two decisions of the prime minister, namely Decision 256^{48} from 2003 and Decision 1216^{49} from 2012.

⁴⁷ The Government's Decree No. 18/2015/ND-CP, dated 14 Feb 2015, on environmental protection planning, strategic environmental assessment, environmental impact assessment and environmental protection plans.

⁴⁸ The Prime Minister's Decision No. 256/QD-TTg, dated 2 Dec 2003, to approve the national strategy on environmental protection until 2010, with a perspective towards 2020 (Decision 256).

⁴⁹ The Prime Minister's Decision No. 1216/QD-TTg, dated 5 Sep 2012, to approve the national strategy on environmental protection until 2020, with a vision to 2030 (Decision 1216).

The strategy for environmental protection from 2003 is pursuant to the Law on Environmental Protection 1996 (LEP 1996⁵⁰). Art. 37, Clause 2 LEP 1996 requires that the State shall establish and give guidance on the formulation of strategies and policies to protect the environment, as well as providing plans to prevent, combat and remediate environmental degradation, environmental pollution and environmental emergencies.

Nine years later the prime minister issued Decision 1216, approving the strategy for environmental protection until 2020 with a perspective towards 2030. This decision refers to the amended Law on Environmental Protection of 2005⁵¹. Art. 121, Clause 2, lit. b LEP 2005 states that the MoNRE shall report to the government for approval of nationwide policies, strategies and plans on protection of the environment. In accordance with Decision 1216, the overall objective is to:

- Basically control and restrict the increase of environmental pollution, the degradation of resources and biodiversity declines,
- Keep improving the living environment,
- Improve the capability to deal with climate change, towards the sustainable development of the country (ibid, Art. 1, Clause 2, lit. a).

4.3 Environmental Protection Planning (EPP)

4.3.1 Legal Framework of Environmental Protection Planning

A basic tool of the LEP is environmental protection planning (abbr. EPP), which is defined in Art. 3, Clause 21 LEP 2014 as an "environmental zoning scheme to conserve, develop and establish technical infrastructural systems for environmental protection in line with a range of measures to be taken to protect the environment, which must be closely connected with general planning for socio-economic development to aim for sustainable development". The environmental protection infrastructure itself is understood as the system for collecting, storing, transporting, recycling, reusing and disposing of waste substances and monitoring the environment (ibid, Clause 24).

The EPPs must comply with the following principles:

- a) Conform to natural, socio-economic conditions, to the general strategy and planning for socio-economic development, to the maintenance of national defense and security, and, lastly, to the national environment protection strategy aiming to ensure sustainable development (ibid, Art. 8, Clause 1, lit. a),
- b) Ensure consistency with land use planning, and the consistency of the basic contents of the environmental protection strategy (ibid, lit. b),
- c) Uphold the principles of environmental protection as prescribed in Art. 4 of this Law (ibid, lit.c).

⁵⁰ The National Assembly's Law No. 29-L/CTN, dated 27 Dec 1996, on environmental protection (LEP 1996).

⁵¹ The National Assembly's Law No. 52/2005/QH11, dated 29 Nov 2005, on environmental protection (LEP 2005).

The EPP shall be established at two levels, the national and provincial (Art. 8, Clause 2). The planning period of the plans is 10 years with a vision to 20 years (Art. 8, Clause 3). Required by Art. 3, Clause 1, Decree 18, the EPP shall be formulated in conformity with socio-economic development planning in the 2021-2030 period, oriented to 2040 including national EPP and provincial EPP.

Art. 9, Clause 1, lit. a to lit. i, LEP prescribes that the plans for environmental protection shall contain specific basic contents, including:

- Assessment of current environmental status, environmental management, forecasting of trends towards environmental and climate changes,
- Environmental zoning,
- Biodiversity and forest conservation,
- Environmental management of sea, islands and river basins,
- Waste management,
- Environmental protection infrastructure; environmental monitoring system,
- Planning maps representing contents prescribed in Points b, c, d, dd and e of this Clause,
- Resources required for the implementation, and
- Organization of implementation.

When drawing up provincial environmental protection planning, the plan has to be aligned with the specific conditions that exist in each locality through a separate EPP or through an integrated EPP attached to socio-economic development planning (ibid, Clause 2).

The MoNRE is in charge of preparing *national level planning* (Art. 10, Clause 1, LEP), and shall initiate a consultation process in writing — with ministries, regulatory agencies and provincial People's Committees and hold official consultations with relevant regulatory agencies and organizations during the preparation phase (ibid, Art. 11, Clause 1, lit. a). In order to facilitate assessment and approval of the planning for environmental protection, the Ministry of Natural Resources and Environment shall establish a council for interdisciplinary inspection which prepares submission of the national-level planning for environmental protection to the prime minister, seeking for approval of that planning (ibid, Clause 2, lit. a).

Detailing the regulation for EPP, Art. 3, Clause 2, lit. a to I Decree 18 provides for the content of national planning for environmental protection as follows:

- Development and objectives of management of the forest environment, biodiversity conservation;
- Practical condition of marine, island or basin environment; objectives and solutions for conservation of natural resources and marine, island or basin environment;
- Practical condition of emissions and ambient air quality; objectives and solutions for development activities with large emission sources;
- Practical condition of soil degradation or pollution; objectives and solutions for prevention of soil degradation or pollution, restoration of polluted or degraded areas;

- Practical condition of water pollution; objectives and solutions for management of sewage and water environment protection;
- Practical condition of collection, processing and objectives and solutions for management of domestic solid waste, industrial solid waste, hazardous waste;
- Practical condition of monitoring networks and environmental monitoring; objectives and planning for monitoring networks and environmental monitoring;
- Environmental zoning according to objectives of development, protection, conservation and responses to climate change;
- Priority programs or projects for environment protection and environmental parameters;
- Maps or diagrams of the planning areas;
- Resources used for EPP; inspection and observation of implementation of EPP.

Concerning the *provincial-level planning*, the People's Committees of independent cities and provinces are responsible for preparing the document (Art. 10, Clause 2, Decree 18). It shall be formulated in the form of separate reports or combined with the planning for socio-economic development (ibid, Art. 3, Clause 3). The MONRE shall provide guidance on the process of draft formulation and approval for EPP (ibid, Clause 4), and the authority responsible for the planning must study and acquire the opinions of agencies or organizations (ibid, Clause 5), however, this requirement is not specified in detail.

4.3.2 Current National Program to implement the Environmental Protection Strategy

As noted above, the current national strategies are based on the former LEP 1996 and LEP 2005. The same applies to the environmental protection planning. Pursuant to the national environmental strategy as per Decision 1216, in 2014 the prime minister promulgated Decision No. 166⁵² to issue the so-called "program to implement the strategy for environmental protection until the year 2020, with a vision to 2030". That decision was issued in January, five months before the promulgation date of the LEP. Therefore, it was not called planning for environmental protection but it is in the same vein.

The objective of Decision 166 is to define groups of tasks to implement the contents, measures and solutions of the strategy. This shall serve as the basis for ministries, sectors and localities to establish and implement the plan for environmental protection each year in alignment with the assigned functions and tasks in order to achieve the targets of the strategy (ibid, Chapter I).

Among other ministerial agencies and provincial governments, the MoNRE is the leading public agency and shall directly support the prime minister (ibid, Chapter V, Art. 2). The same chapter regulates the responsibilities of other State bodies.

⁵² The Prime Minister's Decision No. 166/QD-TTg, dated 21 Jan 2014, to issue the program for implementation of the national environmental protection strategy by 2020, with a vision to 2030 (Decision 166).

4.3.3 Hoa Binh Environmental Protection Planning

In January 2016, the PPC of Hoa Binh province issued Decision No. 104/QD-UBND⁵³ promulgating the "Plan to implement the national strategy on environmental protection until 2020, with a perspective until 2030 within Hoa Binh province". The preamble of Decision 104 notes that the provincial program shall implement the national strategy for environmental protection as promulgated in the Prime Minister's Decision 1216 and Decision 166. The provincial plan on environmental protection is specific for the region, and in the annex it presents a list of 74 priority projects for implementation in Hoa Binh province until 2020.

The general target of the plan is to protect the environment within the domain of Hoa Binh until 2020, with a perspective towards 2030, by focusing on solutions to limit and minimize environmental pollution and for the sustainable use of natural resources (Chapter I, Art. 1, Sentence 1). Among the targets is raising the awareness and responsibility of all levels, sectors, organizations, individuals and communities for environmental protection (ibid, Sentence 2), and preventing, restricting and basically remediating problems of environmental pollution, minimizing the degradation of natural resources, and step by step improving environmental quality as well the capacity for environmental management. Furthermore, the authorities shall strictly control waste sources and promptly solve environmental pollution problems in industrial parks, clusters and at sites of mineral mining, while the sources of serious environmental pollution shall be thoroughly handled (ibid, Sentence 3).

By 2020, the content of environmental protection shall be integrated into general socio-economic development planning as well the planning of sectors and areas that are associated with environmental protection and sustainable development (ibid, Art. 2, Sentence 10). With respect to the sustainable exploitation and use of water resources and mineral resources, related action shall comply to the requirements of environmental protection, biodiversity conservation at respective sites, and a program to rehabilitate the polluted areas and develop buffer zones for conservation areas (ibid, Art. 2, Clause a, Sentence 8).

In Hoa Binh, the DoNRE shall be the leading public agency to implement this provincial policy program on environmental protection. By aligning with other provincial departments, especially the Department of Planning and Investment, the Department of Industry and Trade, and the People's

⁵³ The People's Committee of Hoa Binh province's Decision No. 104/QD-UBND dated 19 Jan 2016 to promulgate the plan to implement the national strategy on environmental protection until 2020, and a perspective until 2030 within Hoa Binh province. The program or plan is outlined in the decision's appendix, including the MAREX project as item No. 74, the single project on international cooperation in the field of environmental protection (HB-Decision 104a). Therein, the MAREX project is cited as a project in international

cooperation on environmental protection (item No. 74).

Committees of all levels, the DoNRE shall implement the previously approved plans for Hoa Binh province (ibid, Chapter IV, Art. 1, Sentence 6).

In the annex of Decision 104, the establishment of further planning is noted, a selection of those plans with potential impacts on the mining of construction aggregates are shown in the following:

- Item 08: Planning on solid waste management in Hoa Binh province until 2020, with a perspective until 2030 (execution 2015-2020, chaired by DoC),
- Item 51: Planning on mining zones to mine the soil for use as a normal construction material, (execution 2016-2020, chaired by DoNRE),
- Item 52: Planning on protection of biodiversity in Hoa Binh province until 2020, with a perspective until 2030, (execution 2015-2020, chaired by DoNRE),
- Item 57: Action program on reducing greenhouse gas emissions through limiting the loss or degrading of forest areas, sustainable management of forestry as a natural resource, and conserving and increasing the carbon sink capacity of forests (execution 2016-2020, to be led by the Department of Agriculture and Rural Development).

4.4 Strategic Environmental Assessment (SEA)

As noted previously in Section 3.2.2, the MinL requires the implementation of a strategic environmental assessment document (SEA) as a accompanying work to the *national planning on mineral exploration and mining* under Art. 10, Clause 1, lit. b (Art. 12, Clause 2, Lit. e) which applies as well for the *national planning on the exploitation and utilization of each kind or group of minerals for use as construction materials, and national planning on exploitation and utilization of each kind or group of other minerals under Art. 10, Clause 1, lit. c (Art. 13, Clause 2, lit. d).*

Art. 13 ff., LEP 2014 provide detailed regulations for *strategic environmental assessment* (SEA). SEA refers to the analysis and forecast of existing or potential impacts on the environment, which have been described in the development strategy, planning and proposal by competent authorities, in order to provide measures to control and reduce adverse impacts on the environment, and to serve as a basis for and to be incorporated in such a development strategy, planning and proposal with the objective of ensuring sustainable development (Art. 3, No. 22 LEP). The SEA-related provisions of Art. 13 ff., LEP 2014 are supplemented by Decree 18⁵⁴ and Circular 27⁵⁵.

⁵⁴ The Government's Decree No. 18/2015/ND-CP, dated 14 Feb 2015 on environmental protection assessment, strategic environmental assessment, environmental impact assessment and environmental protection plans.

⁵⁵ The MoNRE's Circular No. 27/2015/TT-BTNMT, dated 29 May 2015 on strategic environmental assessment, environmental impact assessment and environmental protection plans.

4.4.1 Subject of SEA

The provision of Art. 13, Clause 1, lit. dd in the LEP 2014 refers to the Mineral Law's requirements that the elaboration of national planning on mineral exploration and mining (Art. 12, Clause 2, lit. e, MinL) as well as national planning on mineral exploration and mining must be based on a strategic environmental assessment report (ibid, Art. 13, Clause 2, lit. d).

Appendix I of Decree 18 presents a list of 25 entities that are subject to strategic environmental assessment. Two of the entities are relevant for the mining of construction aggregates. Firstly, the national strategies and planning for development of industries and fields (box code 4.1), including those for mining and mineral processing (box code 4.1.2). Secondly, the planning for development of inter-provincial and inter-regional industries and fields (box code 4.2) that also contains planning for the extraction and processing of minerals (box code 4.2.6).

Table 1: List of selected entities subject to strategic environmental assessment (Vu, IOER)

1	Socio-economic development strategies and planning of socio-economic areas, key economic areas, economic corridors, economic rims	
2	Socio-economic development planning of provinces, cities, special zones affiliated to central governments and administrative-economic units	
3	National strategies for development of a system of economic zones, export- processing zones, hi-tech zones and industrial parks	
4.1	National strategies and planning for development of industries and fields	
4.1.2	Strategies or planning for development of electricity, hydroelectricity, thermoelectricity, atomic energy and nuclear power; extraction of oil and gas, petrochemistry; paper; chemical industries, fertilizers, plant protection products; rubber; textiles; cement; steel; exploration, mining and mineral processing	
4.2	Planning for development of inter-provincial and inter-regional industries and fields	
4.2.5	General planning for urban areas	
4.2.6	Planning for extraction and processing of minerals	
4.2.7	Land use planning	
4.2.8	Planning for use of marine resources	
5	Amendments to strategies, planning or plans	
6	Strategies, planning or plans as prescribed by the National Assembly, the Government of the Prime Minister	

4.4.2 Conducting the SEA

In accordance with Art. 14 of the LEP, the authority assigned with the elaboration of the strategy and planning is responsible for preparing or hiring a consultant to prepare the SEA report (Art. 14, Clause 1, LEP). The SEA must be carried out simultaneously with the process of elaborating the strategy, planning or plan of concern (Art. 14, Clause 2). The result of the SEA must be reviewed and integrated into the contents of the strategy and planning documents (ibid, Clause 3). Based on implementing the SEA, the authority which is in charge of the strategy, planning or plan is also responsible for submiting the SEA report to the competent authority for inspection purposes (ibid, Clause 4).

4.4.3 Main Subject Matters of the SEA Report

The main subject matters of reports on strategic environmental assessments shall contain the following 10 topics (Art. 15, Clauses 1 to 10):

- 1) Necessity and legal grounds for the task of preparing the strategy, planning and proposal,
- 2) Method for carrying out the strategic environment assessment,
- 3) Summary of subject matters included in the strategy, planning and proposal,
- 4) Natural and socio-economic environment of an area which is affected by the strategy, planning and proposal,
- 5) Assessment of the conformity of the strategy, planning and proposal to environmental protection viewpoints and objectives,
- 6) Assessment and prediction with reference to positive and negative trends concerning environmental issues to be provided when implementing the strategy, planning and proposal,
- 7) Assessment and prediction with reference to the trend in climate change impacts in the course of implementing the strategy, planning and proposal,
- 8) Consultation to be required in the process of the strategic environment assessment,
- 9) Measures for sustaining the positive trends, and for controlling and mitigating negative trends concerning environmental issues in the process of the strategy, planning and proposal,
- 10) Issues that need to be further researched in the process of implementing the strategy, planning, proposal and recommended solutions.

4.4.4 Verification of the SEA Report

Having submitted the SEA report, the verification of the latter is assigned to the Ministry of Natural Resources and Environment in respect of the strategy, planning and proposal decided by the National Assembly, government and the prime minister (Art. 16, Clause 1, lit. a). The ministries and quasiministerial agencies shall organize the verification of the SEA report in cases of strategies, planning and proposals within their jurisdiction (ibid, lit. b). Provincial People's Committees shall verify for approval those SEA reports related to the strategy, planning and proposal within their authority and within the jurisdiction of the People's Council at the same administrative level (ibid, lit. c).

The agency in charge of verifying the SEA report shall arrange the inspection and assessment of the information given in the SEA report, or conduct a poll to collect opinions from regulatory agencies,

organizations and experts involved (ibid, Clause 3), to be performed by an inspection council for the SEA report (ibid, Clause 2).

The authority in charge of formulating the strategy, planning and proposal is responsible for completing the SEA report and developing the draft of the strategy, planning and proposal on the basis of proper research and with reference to responses from the SEA report inspection council (Art. 17, Clause 1). Based on a conclusive report of the authority verifying the SEA report (ibid, Clause 2), the conclusive results of this verification report serve as the basis for the competent authority to approve of the strategy, planning and proposal (ibid, Clause 3).

4.4.5 Practical Implementation in Hoa Binh Province

As mentioned above, the planning for the exploration, exploitation and utilization of three types of construction materials was approved by the provincial government in HB-Decision 76, based on Art. 10, Clause 1, lit. d MinL in the year 2013. Planning was elaborated under the LEP 1996, and the amended LEP 2005, under which a non-mandatory SEA report was to be made jointly with the planning. According to the information of the staff of the Hoa Binh provincial Environmental Protection Agency (under the DONRE Hoa Binh), the inspection work of their agency is based solely on the individual environmental impact assessment reports which were submitted to the agency by the individual mining projects as enclosed in the investment applications.

According to Art. 13, Clause 1, lit. d, the current LEP 2014 meanwhile stipulates that a strategic environmental assessment is mandatory if a strategy or plan for the extraction and utilization of natural resources requires the inclusion of 2 or more provinces. Consequently, if the mining region is located in one province only, the SEA seems to be non-mandatory. However, due to the concentration of mineral resources and mining operations within the Luong Son district (which have been visited by MAREX researchers), the environmental impacts seem to be uniform or similarly severe and impact development in the district. Therefore, it might nevertheless be recommendable to conduct a SEA to systematically address the uniform environmental impact of aggregates mining on the Luong Son district – even though this is not currently a legal requirement.

4.5 Environmental Impact Assessment (EIA)

Environmental impact assessment (EIA) refers to the analysis and prediction of the environmental impacts of specific investment *projects* in order to take preventive measures to protect the environment during the implementation of such projects (Art. 3, No. 23 LEP).

4.5.1 Objects of EIA

In accordance with the Art. 18 LEP, projects which shall submit an EIA report include:

- 1) Projects subject to the decision on investment intentions made by the National Assembly, government and the prime minister (ibid, lit. a);
- 2) Projects that use land parcels situated in wildlife sanctuaries, national parks, historical-cultural monuments, world heritage sites, biosphere reserves, scenic beauty areas that have been ranked (lit. b);
- 3) Projects that may have negative effects on the environment (ibid, lit. c).

Entities that are required to conduct an EIA are listed in appendix II of Decree 18, especially those related to mineral mining are listed in boxes 35 to 41.

Table 2: Projects for mineral exploration, extraction and processing required to conduct EIA (Decree 18, appendix II, boxes 35-41)

Project	Scope	Entity required to report results of environment protection works
Projects for extraction of sand, gravel, leveling materials	Crude sand or gravel: at least 50,000 m³ per year;	No
	Crude leveling materials: at least 100,000 m³ per year;	
Projects for solid mineral extraction (not using toxic chemicals, industrial	Mineral or earth and stone waste: at least 50,000 m³ per year;	All
explosives)	Mineral or earth and stone waste: at least 1,000,000 m ³ ;	
Projects for exploration of rare earth, radioactive minerals; projects for extraction and processing of solid minerals using harmful chemicals or industrial explosives; projects for processing and refining of non-ferrous metals, radioactive metals, rare earth	All	All, except for projects for exploration
Projects for processing of solid minerals not using harmful chemicals	Capacity: at least 50,000 m ³ of products per year;	All
	Earth and stone waste volume: at least 500,000 m³ of per year	
Projects for water extraction for business and domestic purposes	Groundwater capacity: at least 3,000 m of water per day and night;	No
	Surface water capacity: at least 50,000 m ³ of water per day and night;	
Projects for extraction of mineral water, natural hot water	Bottled water capacity: at least 200 m ³ of water per day and night;	No
(underground or on the surface)	Other water capacity: at least 500 m ³ of water per day and night;	
Projects for sorting and enrichment of rare earth and radioactive minerals	Capacity: at least 500 metric tons of products per year	All

As discussed above, the Mineral Law stresses that in mining activities, the solutions and costs for environmental protection, rehabilitation and restoration must be identified in the investment project and environmental impact assessment report and be approved by competent state agencies (Art. 30, Clause 2, MinL). Furthermore, organizations and individuals must have an EIA report or a commitment as a pre-condition of being granted the mining right (ibid, Art. 53, Clause 2, lit. b).

4.5.2 Execution of the EIA

Art. 19 LEP prescribes how the EIA shall be executed. The project owners as defined under Art. 18, Clause 1 shall carry out the EIA by their own capacity or hire an advisor to carry out the EIA. The owners shall take statutory responsibility for the conclusive result of the assessment (ibid, Clause 1). It is relevant that the EIA must be performed while preparing the project (ibid, Clause 2), and the results shall be provided in an EIA report (ibid, Clause 3). The costs of the EIA are covered by the investor and have to be calculated as part of the investment project's budget (ibid, Clause 4).

Decree 18 stipulates in more detail that the project owner shall consult with the People's Committee of communes, wards and towns (abbr. "communal government") where the project is carried out, and with organizations or the community directly impacted by the project. They shall research and receive objective opinions and reasonable requests of relevant entities in order to minimize the negative effects of the project on the natural environment, biodiversity and community health (Art. 12, Clause 4, Decree 18).

The consultation is processed such that the project owner shall send the EIA report to the communal People's Committee directly impacted by the project together with the written requests for opinions (ibid, Clause 5, lit. a). Within 15 working days, from the date on which the EIA reports are received, the People's Committee of the commune and organizations directly impacted by the project shall send their responses if they do not approve the project (ibid, lit. b).

Community consultation with those impacted by the project shall be carried out in the form of a community meeting co-chaired by the project owner and the communal government where the project is carried out, including representatives of the Vietnamese Fatherland Front of communes, socio-political organizations, socio-professional organizations, neighborhoods and villages convened by the People's Committee of the commune. All opinions of delegates attending the meeting must be sufficiently and honestly stated in the meeting minutes (ibid, Clause 6).

Remaking the EIA report

If a project is not executed within a period of 24 months from the date of approving the EIA report, the latter shall be remade (ibid, Art. 20, Clause 1, lit. a). The remake is also mandatory if the project

location has been changed since the approved EIA report (ibid, lit. b). The last reason for a remake, according to the Law, is an increase in the size, capacity and technological changes which can cause adverse impacts on the environment in comparison with the approved alternatives identified in the valid EIA report (ibid, lit. c). Decree 18 adds a fourth reason which is an EIA remake as per application of the project owner (Art. 15, Clause 1, lit. d, Decree 18).

Consultation in the EIA process

A consultation process is required as part of the assessment of environmental impact and is aimed at completing the EIA report and helping minimize negative impacts on the environment and on humans to ensure the sustainable development of the project (Art. 21, Clause 1). It is mandatory for the project owners to consult with stakeholders directly affected by the project, such as regulatory agencies, organizations and communities (ibid, Clause 2). A project is not affected by this compulsory consultation if it complies with previously approved planning for the site as economic zones of production, trading, business or services and if the relevant EIA report has been approved with regard to the investment phase of building the infrastructure (Clause 3, lit. a). The same applies for projects classified as State secrets (ibid, lit. b).

Main subject matters of the EIA report

Subsequently, Art. 22, Clauses 1 to 11 LEP defines the main contents for a report on the environmental impact assessment which are cited in full, as follows:

- 1) Origin of the project, project owners and the competent authority's approval of the project; method of the environmental impact assessment;
- 2) Evaluation of technological choice, work items and any activity relating to the project which can have negative effects on the environment;
- Assessment of the current status of the natural and socio-economic environment carried out at areas where the project is located, adjacent areas and demonstration of the suitability of the selected project site;
- 4) Assessment and forecast of waste sources, and the impact of the project on the environment and community health;
- 5) Assessment, forecast and determination of measures for managing the risks of the project posed to the environment and community health;
- 6) Waste disposal measures;
- 7) Measures for minimizing the impact of the project on the environment and community health;
- 8) Consultation result;
- 9) Environmental management and supervision programs;
- 10) Budget estimate for the construction of environmental protection facilities and measures to be taken to minimize the environmental impact;
- 11) Alternatives to the application of measures for environmental protection.

Verification of the EIA report

The Ministry of Natural Resources and Environment shall organize the verification of the EIA report in the following cases:

- 1) Investment projects which are decided by the National Assembly, government and the prime minister (Art. 23, Clause 1, lit. a, LEP);
- 2) Projects classified as interdisciplinary or inter-provincial (stipulated in Points b and c Clause 1 Article 18 of the LEP 2015), or as secret projects of national defense and security (ibid, lit. b),
- 3) Projects to be verified by the authorized bodies of central government (ibid, lit. c).

Ministries and quasi-ministerial agencies shall organize the assessment of EIA reports under their power of decision and approval, i.e. those which are not specified in regulations mentioned under Art. 23, Clause 1, lit. b and lit. c (ibid, Clause 2). Specifically, the Ministry of National Defense and the Ministry of Public Security shall verify the EIA reports of projects under their power of decision and approval, and those classified as secret projects of national defense and security (ibid, Clause 3). The provincial People's Committees shall organize verification of the EIA reports for projects within their territories that are not regulated by Art. 23, Clause 1, 2 and 3 of the LEP (ibid, Clause 4).

The head or the person chairing the verification of the EIA report shall take legal responsibility for the verification results (Art. 24, Clause 1). Members of the inspection council or entities that are requested to contribute their advisory opinions shall be legally responsible for their opinions (ibid, Clause 2).

Within a period of 20 days which begins with the date when the EIA report is received after being adjusted at the request of the verification agency, the head or the person who takes over as the leader of the inspection agency shall be responsible for approving the EIA report. If rejected, the project owner must be clearly notified in writing about the reasons thereof (Art. 25, Clause 1).

Further details are provided by Decree 18, a relevant point of which is that the assessment of an EIA report shall be conducted by an EIA report assessment council established by the heads of the EIA report assessment authority with at least 7 members, whereas at least 30 percent of the assessment council members shall have at least 6 years of experience in the EIA field (Art. 14, Clause 3, Decree 18).

Approval of the EIA report

Within a period of 20 days which begins with the date when the EIA report is received after being adjusted at the request of the verification agency, the head or the person who takes over as the leader of the inspection agency shall be responsible for approving the EIA report. If the report is rejected, the project owner must be notified in writing and the reasons for the rejection must be clearly explained (Art. 25 Clause 1 LEP).

According to Art. 25 Clause 2 lit. a) to e) LEP, the approved EIA report shall serve as the pre-requisite for the following administrative tasks:

- 1) Decision on the intention to invest in the projects specified in Article 18 of this Law must be granted if the project is required to obtain such a decision in accordance with laws,
- 2) Issuing and revising the prospecting permit, mineral extraction permit in respect of the mineral exploration and extraction projects,
- 3) Approving the plan for prospecting or exploration, and the plan for mine development in respect of petroleum exploration and extraction,
- 4) Issuing and revising the construction permit in respect of the projects on the development of works or structures that are required to obtain a construction permit before commencement,
- 5) Issuing the investment certificate with reference to projects that are not regulated in Points a, b, c and d in this Clause.

After the approval of the EIA report, the project owner concerned shall comply with the requests stated in the EIA report (ibid, Art. 26, Clause 1).

Responsibilities of the project owner before bringing the project into operation

Before starting project operations, project owners are obliged to organize the measures for environmental protection as approved in the EIA report (Art. 27, Clause 1 LEP). Furthermore, they shall report to the authority that has approved the EIA content about the implementation of constructional works for environmental protection to enhance operations of large projects, or about risky projects which could have adverse impacts on the environment, in accordance with governmental regulations. These projects are permitted to start operations only after the inspection and receipt of the certification by the authority in charge of the approval of the EIA report, stating that such environmental protection works have been completed (ibid, Clause 2). Further provisions on the obligations of the project owner are outlined in Art. 16, Decree 18.

On the part of the State management, the authority competent for approving the EIA shall bear statutory responsibility for its conclusive result and decision on the approval of the report on environmental impact assessment (Art. 28, Clause 1). Within a period of 15 days as from the date of receiving the project owner's report on the completion of environmental protection works (as specified under Art. 27, Clause 2, LEP), this authority must examine and certificate the completion of those environmental protection works. Where an analysis of complicated environmental criteria is required, the time span for the issuance of the certificate of completion of environmental protection works can be extended to up to 30 days (ibid, Clause 2).

The MoNRE's Circular 27 provides further implementation details and official forms on the matter of EIA reporting.

4.6 Environmental Protection Plan

This section deals with the instrument of the environmental protection plan (EP Plan), which has to be distinguished from environmental protection planning (EPP) under Section 4.3.

4.6.1 Subjects of an Environmental Protection Plan

The subjects thereto are a) investment projects which are not obliged to establish an EIA report (Art. 29, Clause 1, LEP), and b) projects on production, trading and services in accordance with the Law on Investment (ibid, Clause 2). Decree 18 prescribes in Art. 18 the profile of the projects which must register an EP Plan in more detail, namely:

- 1) New investment projects, projects for extension of the scope or capacity of business facilities other than entities prescribed in Appendix II of Decree 18 (ibid, Clause 1, lit. a),
- 2) Plans for business investment, projects for extension of the scope or capacity of business facilities if the entity is not included in Appendix IV of Decree 18 presenting projects exempt from providing an EP Plan, or is not included in Appendix II of Decree 18 presenting projects with compulsory EIA reporting (ibid, lit. b),

The project owner or facility owner of entities prescribed under Art. 18, Clause 1 of Decree 18 shall register the environment protection plan at the competent agency prescribed in Clause 1 Article 19 of this Decree (ibid, Clause 2). The registration of EP Plans is dealt with in Articles 32, 33 and 34 of Circular 27.

4.6.2 Subject Matters of the Environmental Protection Plan

The environmental protection plan shall discuss the following content (Art. 30 LEP 2014):

- Project site (ibid., Clause 1),
- Type, technology and scale of production, trading and service (ibid, Clause 2),
- Required raw materials and fuels (ibid, Clause 2),
- Forecast of wastes and any other substances affecting the environment (ibid, Clause 2),
- Measures for disposing of waste and mitigating negative environmental impacts (ibid, Clause 2),
- Measures to be applied for environmental protection (ibid, Clause 2).

4.6.3 Registration and Certification of the Environmental Protection Plan

Before starting any project operation, the project owner shall register and receive the certification for the EP Plan from the competent authority, as specified in Art. 32 of the LEP (Art. 31). The Environmental Protection Agency belonging to the provincial Department of Natural Resources and Environment must certify the EP Plan if the project is a) executed in more than two districts (Art. 32, Clause 1, lit. a), b) executed on polluted marine zones with waste substances to be shipped for the purpose of inland treatment in a province (ibid, lit. b), and c) designed on a large scale and can cause negative impacts on the environment of a province, according to regulations of the Ministry of Natural Resources and Environment (ibid, lit. c).

4.6.4 Relevance for Mining Projects

Environmental protection plans are relevant for business operations in which aggregates mining takes place within the project's property, but does not represent the main business income or purpose of the project. Otherwise, the project shall formulate an EIA. In other words, if the project just mines stones and earth that is within the property and uses them to construct a building there as the primary business operation, then it shall generate an environmental protection plan. The primary economic objective is the construction project. In contrast, in a mine, the main business purpose is to extract minerals. Therefore, it is necessary to conduct an EIA in the approval process of a mine.

4.7 Environmental Requirements for the Extraction and Use of Mineral Resources

The LEP provides in Art. 35 ff. a full chapter (III) specifically dealing with the matter of environmental protection related to the mining and use of natural resources.

Article 35 provides environmental protection requirements that apply during the inspection, assessment and preparation of the planning for utilization of natural resources. Thus, the current status, recyclability and economic value of natural resources and biodiversity must be investigated and evaluated to serve as a basis for the preparation of the plan for proper utilization; defining the limit on permitted extraction levels, severance tax rates, environmental protection fees, environmental remediation deposits, biodiversity reimbursable costs, environmental damages and other measures for environmental protection (ibid, Clause 1).

In regard to the basic survey, the exploration, extraction and utilization of natural resources must comply with the planning which has been approved by the competent regulatory agencies (Art. 37, Clause 1). The permit for these activities must include information about environmental protection in accordance with the law (ibid, Clause 2). In the course of the basic survey, the exploration, extraction and utilization of natural resources, interested organizations and individuals shall fulfill the requirements for environmental protection and must carry out environmental remediation in accordance with this Law and other relevant laws (ibid, Clause 3).

The LEP 2014 prescribes in Art. 38, Clause 1 that during the prospecting, extraction and processing of minerals, the miners must find preventive measures and responses to environmental emergencies and meet requirements for environmental protection, rehabilitation and remediation. Especially, they have to:

- 1) Collect and dispose of wastewater (ibid, lit. a),
- 2) Collect and dispose of solid wastes according to regulations (ibid, lit. b),
- 3) Prevent and control the spread of hazardous waste dusts and emissions (ibid, lit. c),

- 4) Draw up a plan for environmental rehabilitation and remediation for all processes of exploration, extraction and processing of minerals, and take ongoing action to rehabilitate and restore the environment in the course of exploration, extraction and processing of minerals (ibid, lit. d) (which is in accordance with Art. 30, Clause 2 of the Mineral Law),
- 5) Pay an environmental remediation deposit in accordance with the law (ibid, lit. dd) (which is in accordance with Art. 30, Clause 3 of MinL).

The compulsory drawing up of a plan for environmental rehabilitation and remediation under Art. 38, Clause 1, lit. d LEP supplements the obligation of Art. 30 Clause 2 MinL which states that organizations and individuals engaged in mineral activities shall apply solutions and bear all costs for environmental protection, rehabilitation and restoration. According to Art. 30 Clause 2 Sent. 2 MinL, the solutions and costs for environmental protection, rehabilitation and restoration must be identified in the investment project, EIA reports and environmental protection commitments approved by the competent state authorities.

Art. 38 Clause 2 to Clause 4 MinL provide special regulations for the handling of harmful substances in the mining process. Chaired by the MoNRE, concerned ministries and local governments shall jointly provide guidance on the statistical report on waste discharges, assess the environmental contamination level of mineral extraction and processing sites, and examine and inspect compliance with the law on the environmental protection thereof (ibid, Clause 5).

5. Planning Regulations

Besides the laws discussed in the previous sections, the planning legislation is also of relevance for the field of environmentally sound mining activities. This section focuses on socio-economic development planning, sectoral planning, land use planning and construction planning. The following legal bases are discussed with regard to these fields:

- 1) Socio-economic development planning: laws on organizing the National Assembly and on organizing the (central and local) government (Section 5.1),
- 2) Sectoral planning with relevance to mining activities: Law on Biodiversity (biodiversity planning), Law on Forestry (forestry planning), Law on Water Resources (water planning) (Section 5.2) (the planning-related legislations on mineral mining (MinL) and environmental protection (LEP) will be skipped as they have been thoroughly discussed in Sections 3.2 and 4.3),
- 3) Land use planning: Land Law (Section 5.3),
- 4) Spatial planning: Law on Construction (construction planning), Law on Urban Planning (urban planning) (Section 5.4).

On 24 Nov 2017, the National Assembly passed the Law on Planning (LoP or LoP 2017) which came into force on 1 January 2019. The LoP 2017 will be introduced at the end of this section, as a kind of "superlegislation", amending and harmonizing the existing system of planning laws (Section 5.5).

As the Vietnamese planning system is very complex, this study can provide only a general overview of the legal framework, focusing on regulations with relevance for the mining of aggregates for use as building materials.

5.1 Socio-Economic Development Planning

5.1.1 Relevant Legal Documents

This section will discuss socio-economic development planning or, more precisely, comprehensive socio-economic development planning (CSEDP) in Vietnam which is conducted at the national, provincial and district levels. The legal basis of Vietnam's system of national socio-economic development planning is provided by Art. 9, Clause 3, Law on Organizing the Government from 2001 (LOG 2001⁵⁶) which states that one of the main tasks and powers of the government in the economic domain is to elaborate strategic projects, planning long-term, five-year and annual socio-economic development plans for submission to the National Assembly; and to direct the implementation thereof. The provisions of the LOG 2001 are substantiated by Decree 92⁵⁷ on the formulation, approval and

⁵⁶ The National Assembly's Law No. 32/2001/QH10, dated 25/12/2001, on organizing the national government (LOG 2001).

⁵⁷ The Government's Decree No. 92/2006/ND-CP, dated 7 Sep 2006, on the formulation, approval and management of socio-economic development planning (Decree 92).

management of comprehensive socio-economic development planning (2006) and Decree 04⁵⁸ to amend and supplement some Articles of Decree No. 92/2006/ND-CP (2008). Additionally applicable is the Ministry of Planning and Investment's Circular 05⁵⁹ to guide the process of socio-economic development planning from 2013.

Table 3: Structure of comprehensive socio-economic planning in Vietnam (Vu, IOER)

Scope of CSEDP	Kind of CSEDP ⁶⁰	Drafting authority	Approval authority	
National	National CSEDP of regions and special economic territories	Ministry of Planning and Investment	Prime Minister	
	> Art. 1, Clause 6, lit. a Decree 04			
	National planning of sectors, branches, key products, listed in Art. 1, Clause 14, Decree 04	Ministries according to their sectoral competence	Prime Minister > Art. 1, Clause 14, Decree 04	
	> Art. 1, Clause 3, lit. c, Decree 04 (ibid, Clause 14)			
	National planning of sectors, branches, key products excluding those listed in Art. 1, Clause 14, Decree 04	Ministries according to their sectoral competence	Ministries according to their sectoral competence	
	> Art. 1, Clause 14, Decree 04 Competence Competence > Art. 1, Clause 6, lit. b, Decree 04 (ibid, Clause 14)			
Province	Provincial CSEDP > Art. 1, Clause 3, lit.a, Decree 04	Provincial People's Committee (Depart- ment of Planning and Investment)	Prime Minister	
	> Art. 1, Clause 6, lit. c, Decree 04			
	Provincial-level planning of sectors, branches and key products	Provincial departments under the provincial People's Committees	Provincial People's Committee	
	> Art. 1, Clause 6, lit. dd, Decree 04			
District	District CSEDP	District-level People's Committee (Art. 1, Clause 3, lit. b, Decree 04)	Provincial People's Committee	
	Art. 1, Clause 6, lit. d, Decree 04			

In 2015, the new Law on Organizing the Government (LOG or LOG 2015⁶¹) replaced the LOG 2001. However, Decrees 92 and 04 as well as Circular 05 related to the LOG 2001 remained in force. The legal foundation of the duties and powers of the central government to manage and develop the economy

⁵⁸ The Government's Decree No. 04/2008/ND-CP, dated 11 Jan 2008, to amend and supplement some Articles of Decree No. 92/2006/ND-CP dated 7 Sep 2006 by the government on the formulation, approval and management of socio-economic development planning (Decree 04).

⁵⁹ The Ministry of Planning and Investment's Circular No. 05/2013/TT-BKHDT, dated 31 Oct 2013, to guide the development, assessment, approval, revision and communication of socio-economic development planning and the development planning of industries, sectors and key products (Circular 05).

⁶⁰ See also Art. 1, Clause 1 Decree 04 on the regulation scope of the decree which provides for the different kinds of CSEDP.

⁶¹ The National Assembly's Law No. 76/2015/QH13, dated 19 June 2015, on organization of the government (LOG 2015).

is currently provided by Art. 8, Clause 3 LOG 2015 which prescribes that the government shall formulate basic socio-economic development objectives, criteria, policies and tasks in the country for submission to the National Assembly, as well as deciding on specific policies on finance, national currency, salaries and prices. Especially, the government shall decide, direct and organize the execution of the strategy, planning and proposal for socio-economic development.

The objectives of socio-economic development planning or comprehensive socio-economic development planning represent the basic reference for all sectoral, spatial and environmental planning activities in Vietnam.

5.1.2 Comprehensive Socio-Economic Development Planning (CSEDP)

Referring to the relevant legal documents, the term "comprehensive socio-economic development planning". Decree 92 defines in Art. 3, Clause 2 that national comprehensive socio-economic development planning (CSEDP) shall represent reasoning on the development of the socio-economy and the reasonable spatial organization of socio-economic activities throughout the national territory within a specified time frame. According to Art. 5 Decree 92, any CSEDP shall cover a period of 10 years, with a perspective of 15-20 years. The 10-year CSEDP is substantiated in two periods of 5 years. The reviewing, adjusting and supplementing of the planning shall be undertaken in accordance with the socio-economic situation (Art. 5, Decree 92).

By prescribing the responsibilities and order of elaboration, appraisal, approval and management of comprehensive socio-economic development planning (CSEDP), Art. 1, Clause 1 Decree 04 also provides for the kinds of comprehensive socio-economic development planning to be formulated, including:

- 1) CSEDP of **socio-economic regions** (national decision level);
- 2) CSEDP of **special territories** including (national decision level):
- 3) CSEDP **of the provinces and independent cities**, hereinafter referred to as the provincial CSEDP (national decision level);
- 4) CSEDP of districts, towns and cities under the provincial government, hereinafter called district level (provincial decision level);
- 5) Development planning for major industries, fields and products.

Art. 15 Decree 92 requires that national CSEDP is mandatory for two kinds of socio-economic spaces: socio-economic regions and special territories: *socio-economic regions* are classified in Art. 15, Clause 1, Decree 92. Hoa Binh province belongs to the Northern Midland and Mountainous Region

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⁶² Vietnamese term: "quy hoạch tổng thể phát triển kinh tế - xã hội".

(ibid, lit. a). Special territories are key economic regions, economic zones, defense economic zones, industrial parks, export processing zones and technological zones of the whole country, economic corridors and economic belts. Further classification on "special territories" is provided by Art. 1, Clause 9, lit. a) - d) of Decree 04.

Construction planning and land use planning are excluded from the scope of Decree 04 (Art. 1, Clause 1, Decree 04). However, CSEDP shall serve as a basis for the formulation of land use planning and construction planning (Art. 1, Clause 3, lit. b Decree 04).

The district-level People's Committee shall assume prime responsibility and coordinate with the provincial departments and branches in drawing up comprehensive planning on economic development of the district (Art. 1, Clause 3, lit. b Decree 04).

CSEDP shall include the development planning of *key industries and products*, which are prescribed in Art. 1, Clause 14, Decree 04 (Art. 1, Clause 3, lit. c Decree 04). The development planning of key sectors, industries and products throughout the country requires approval by the prime minister (Art. 1, Clause 14 Decree 04). Decree 04 lists the production of cement as well as the exploration, extraction and processing of limestone for cement, as a key sector and key product (ibid, Clause 14, Point 3). The *provincial-level* planning of sectors, industries and key products shall be decided by the provincial-level People's Committee presidents on the basis of the development requirements in each period (Art. 1, Clause 3, lit. d Decree 04).

5.1.3 Content of Socio-Economic Development Planning

Decree 92 prescribes the content of the different kinds of CSEDP planning documents in various articles as follows:

- CSEDP of socio-economic regions in Articles 16 to 18;
- CSEDP of provinces and independent cities in Articles 19 to 21;
- CSEDP of districts in Articles 22 to 24;
- Development planning of key sectors, industries and products in Art. 25 to 28 (Article 25, Decree 92 is amended by Art. 1, Clause 14, Decree 04 and Art. 27, Clause 1, Decree 92 is amended by Art. 1, Clause 15, Decree 04).

The contents of planning documents for CSEDP of socio-economic regions shall include the following:

- 1) Analysis and evaluation of the premises and current conditions (e.g. the natural conditions, the state of socio-economic development) (Art. 16, Clause 1, Decree 92),
- 2) Discussion and demonstration of the objectives, viewpoints and options of the planning which shall reflect on general and specific objectives of the economy, society, environmental protection, defense and security, as well as considering the national context (ibid, Clause 2),
- 3) Specification of the tasks and options to implement the development plan (ibid, Clause 3),

- 4) Discussion and demonstration of an integrated way to organize the economy and society within the territory concerned (general mobilization of the full potential of the territory) (ibid, Clause 4),
- 5) Planning of infrastructure development to satisfy needs in the short and long-term, not only to integrate the economy and society of the region of concern but also to connect them to other regions in the country (ibid, Clause 5),
- 6) Orientation of land use (ibid, Clause 6),
- 7) Formulation of a list of priority projects for investment (ibid, Clause 7),
- 8) Presentation of environmental protection measures, highlighting of territories with serious environmental pollution and sensitive environmental areas, and proposal of adaptive solutions to protect or use these areas (ibid, Clause 8),
- 9) Specification of the solutions with respect to mechanisms and legislations to target the execution of the planning, propose key programs and projects which suit the investment capacity for implementation of planning, and outline the steps and organization of the planning to achieve the objectives (ibid, Clause 9).

Finally, the planning on socio-economic development shall be manifested on a regional map of 1/500,000 and 1/250,000 with respect to key economic zones (ibid, Clause 10).

As a general rule, the synchronicity and consistency between the 5-year strategy on socio-economic development, planning on socio-economic development, construction planning and land use planning shall be ensured (Art. 1, Clause 4, Point 1, Decree 04).

The requirements concerning the contents of planning documents for CSEDP of regions are representative of the requirements for the content of planning documents for other kinds of CSEDP, e.g. the socio-economic development planning of independent cities or provinces (Art. 19 ff., Decree 92). In the case of provincial planning, specific considerations shall be outlined on the interprovincial relations concerning the infrastructures of traffic, transport, communications, power grid, water works and social welfare (ibid, Art. 19, Clause 5, lit. a, b, c, d, dd). The planning is to be shown on a correlated general map of 1/250,000, and on a map for key industrial zones of 1/100,000, respectively (ibid, Art. 19, Clause 10).

The contents of CSEDP documents for districts shall be similarly structured (ibid, Art. 22). However, the related maps are created at a ratio of 1/100,000, and at a ratio of 1/50,000 for key industrial zones, respectively (ibid, Clause 10).

5.1.4 Power of Political Institutions and Public Bodies in the CSEDP-Process

In the aftermath of the amended constitution from 2013, several new laws have been adopted. They add further legislation to the CSEDP process with regard to formulating the 10-year socio-economic development strategy and 5-year socio-economic development plan, as they prescribe the related duties and powers of institutions and public bodies which are discussed in the following.

Table 4: Involvement of political institutions and public bodies (Vu, IOER)

Planning level	Planning document	Drafting authority	Approval authority	
	10-year socio-economic development strategy	Communist Party	Communist Party of	
		of Vietnam	Vietnam	
National			>> Art. 36, Clause 3,	
			LoP 2017	
	> Art. 36, Clause 3, LoP 2017			
National	5-year socio-economic development plan	National	National Assembly	
		Assembly	<<	
	Art. 7, Clause 1 and Art. 72, Clause 2, LONA 2014			
	10-year socio-economic development action	Central	Central	
National	program	Government	Government	
	> Art. 8, Clause 3, LOG 2015			
	Long-term, midterm and annual socio-economic	People's	People's Council of	
	development plan in the province; planning and	Committee of	province	
Province	proposal for development of industries and	province	> Art. 19, Clause 3,	
	sectors in the province within delegated powers	> Art. 21, Clause	lit. a, LOLG	
	> Art. 19, Clause 3, lit. a, LOLG	1, LOLG ⁶³		
District	Midterm and annual plan for socio-economic	People's	People's Council of	
	development in the district	Committee of	district	
	> Art. 26, Clause 2, lit. a, LOLG	district	> Art. 26, Clause 2,	
	plan for development of industries and sectors in	> Art. 28, Clause	lit. a, LOLG	
	the district within delegated powers	1, LOLG		
	> Art. 26, Clause 2, lit. c			

Competence of the Communist Party of Vietnam (CPV) to decide on the 10-Year Socio-Economic Development Strategy

Currently, the socio-economic development planning of the whole country refers to the 10-year socio-economic development strategy (SEDS) decided by the General Congress of the Communist Party of Vietnam from 2011. The legal authorization of this crucial competence of the CPV to decide on the national SEDS is not based on provisions of the current or former constitutions. However, it is indirectly confirmed by the new Law on Planning from 2017, as this requires that the National Assembly's authority to inspect applications for decisions on planning shall focus on the conformity of the contents of the planning to the Communist Party's policies (ibid, Art. 36, Clause 3, lit. a). Therefore, the SEDS document by the CPV impacts the 5-year socio-economic plans of the National Assembly and the 10-year SED action program of the national government.

The current "Communist Party's Socio-Economic Development Strategy 2011-2020", dated 16 Feb 2011, was decided during the XI Contress of the Vietnam Communist Party which took place from 12 to 19 January 2011 in Hanoi. With respect to the topic of sustainable mineral mining, Section 4.11. of the strategy deals with effectively managing and deploying natural resources, guaranteeing

⁶³ Law on organization of the local government.

environment and ecological balance, paying attention to green and environment-friendly economic development, and step by step developing "clean energy", "clean production", and "clean consumption".

Competence of the National Assembly to decide on the 5-year SED Plan

The National Assembly has the constitutional power to decide on major goals, targets, policies and tasks for the socio-economic development of the whole country (Art. 70, Clause 3, CoVN). In reference to this principle empowerment, the Law on the National Assembly (LONA) prescribes that the NA shall decide on the country's long-term and annual fundamental goals, targets, policies and tasks for socio-economic development; and on investment policy for national target programs and national important projects (Art. 7, Clause 1, LONA). This specific task and powers concerning this issue is in the hands of the Economic Committee within the National Assembly, which assumes the prime responsibility for verifying:

- Programs, projects and plans on basic national socio-economic development objectives, targets, policies and tasks,
- The government's reports on the implementation of basic socio-economic development objectives, targets, policies and tasks,
- Basic national monetary policies (ibid, Art. 72, Clause 2).

In 2016, the National Assembly decided on the 5-year Socio-Economic Development Plan from 2016-2020, promulgated as per Resolution 142⁶⁴.

Competence of the central government to decide on the 10-year SED Action Program

The national government's competence to manage socio-economic development is provided by the LOG 2015 as noted above under 5.1.1. The national government is the highest administrative organ of the Socialist Republic of Vietnam, exercises executive powers and is the executive branch of the National Assembly (Art. 1).

The Ministry of Planning and Investment (MPI) is the specialized planning institution, based on Art. 1, Clause 6, Decree 04 and on the Government's Decree 86⁶⁵. Decree 86 specifically details the role and function of the MPI in performing State management of the socio-economic development strategy, planning and plans (ibid, Art. 2, Clause 6), such as:

⁶⁴ The National Assembly's Resolution No. 142/2016/QH13, dated 12 Apr 2016, on the 5-year socio-economic development plan from 2016-2020 (Resolution 142).

⁶⁵ The Government's Decree No. 86/2017/ND-CP, dated 25 Jul 2017, to regulate the functions, tasks, power and organizational structure of the Ministry of Planning and Investment (Decree 86).

- 1) Working out the government's action program to implement the socio-economic development plan after it is adopted by the National Assembly; assisting the government in executing the implementation of plans for a number of branches and domains assigned by the government or the prime minister (ibid, lit. a),
- 2) Formulation of the overall strategy for socio-economic development of the whole country; synthesizing development planning and plans of the ministries, branches, provinces and independent cities; planning for regional and territorial development; forming opinions on planning that falls under the approving competence of the ministries, branches and People's Committees of the provinces or independent cities when so requested (ibid, lit. b).

5.1.5 Procedures of CSEDP

Amending Decree 92, Decree 04 provides in Art. 1 for the different levels of formulation, reporting and approval of comprehensive socio-economic development planning, as follows:

- 1) The Ministry of Planning and Investment shall chair and coordinate with other ministries, institutions and localities to formulate CSEDP for socio-economic regions and special economic territories and report to the prime minister for approval (regulated in Art. 1, Clause 9, Decree 92/2006/ND-CP) (Art. 1, Clause 6, lit. a, Decree 04),
- 2) The specialized ministries shall chair and coordinate with other institutions and localities to organize and approve the planning of sectors, fields and key products under their specific auspices (ibid, lit. b),
- 3) The People's Committees of provinces shall chair and coordinate with ministries and concerned institutions to organize the establishment of the provincial planning and report to the prime minister for approval (ibid, lit. c),
- 4) The People's Committee of districts are responsible for organizing the formulation and reporting of district-level planning to the provincial People's Council of concern for approval (ibid, lit. d),
- 5) The People's Committees of provinces may delegate power to the specialized departments in order to establish the planning of sectors, fields and key products within the province, and to be approved by the provincial People's Committee itself (ibid, lit. dd).

After the planning is approved, the head of the state authority in charge of submitting the planning is obliged to publicize the planning results through publication or public announcement (except for confidential planning contents) (see Art. 11, Clause 7, Decree 92).

Procedures for the planning on socio-economic development are guided in more detail by the Ministry of Planning and Investment's Circular 05 on the formulation, assessment, approval, adjustment and publicizing of socio-economic development planning, sectoral planning, and planning of key lines and products.

5.2 Sectoral Planning

Besides the mandatory consideration of the above-discussed socio-economic planning, the development of mining regions and mining activities has to take into account the planning of other sectors as well. In this respect, Art. 9, Clause 1, lit. a MinL stipulates that a national mineral strategy shall conform with strategies, plans and regional planning on socio-economic development, national

defense and security. Mineral activity areas shall also be based on the requirements of national defense and security maintenance, as well on the prevention and mitigation of impacts on the environment, natural landscape and historical-cultural relics, protection of special-use forests or infrastructure facilities (see Section 3.5 of this study). Furthermore, individuals or organizations engaged in mineral activities shall rent land according to the Land Law (Art. 31, Clause 1), may use water according to the law on water resources (Art. 32, Clause 1) and may discharge water as specified in exploration projects, mining investment projects and mine designs (ibid, Clause 2).

Table 5: Overview of sectoral planning relevant for environmental protection in mineral mining (Vu, IOER)

Planning (Law)	National planning	Hoa Binh planning	
Biodiversity planning (Law on Biodiversity 2004), Art. 8-15	 The Prime Minister's Decision No. 79/2007/QD-TTg, dated 31 May 2007, to approve the national action plan on biodiversity up to 2010 with a perspective towards 2020 for implementation of the Convention on Biological Diversity and the Cartagena Protocol on Biosafety The Prime Minister's Decision No. 1250/QD-TTg, dated 31 Jul 2013, to approve the national biodiversity strategy until 2020, and a vision towards 2030. The Prime Minister's Decision No. 45/QD-TTg, dated 8 Jan 2014, approving the planning of national-wide biodiversity conservation by 2020, with a vision to the year 2030. 	The People's Committee of Hoa Binh's Decision No. 583/QD-UBND, dated 14 May 2012, to approve the biodiversity action plan of Hoa Binh Province in the period 2011-2015, with a perspective towards the year 2020 The People's Committee of Hoa Binh's Decision No. 2270/QD-UBDN, dated 6 Sep 2016, to approve planning for biodiversity conservation for Hoa Binh Province until the year 2020 with a perspective towards the year 2030.	
Forestry planning (Law on Forest Protection and Development 2004, superseded by the Law on Forestry 2017), esp. Art. 10-13	 The Prime Minister's Decision No. 218/QD-TTg, dated 7 Feb 2014, to approve the strategy for management of special-use forests, marine protected areas and inland water protected areas in Vietnam until 2020 and a vision to 2030. The Prime Minister's Decision No. 1976/QD-TTg, dated 30 Oct 2014, to approve the planning for a special-use forest system across the country to the year 2020, and a vision to 2030. 	• The People's Committee of Hoa Binh's Decision No. 2348/QD-UBND, dated 4 Oct 2013, to approve planning for conservation and sustainable development of special-use forest Hang Kia-Pa Co, Phu Canh, Thuowng Tien and Ngoc Son-Ngo Luong until the year 2020.	
Water resources planning (Law on Water Resources 2012), Art. 11, Art. 14-24	 The Prime Minister's Decision No. 104/2000/QD-TTg, dated 25 Aug 2000, to approve the national strategy on rural clean water supply and hygiene until the year 2020. The Prime Minister's Decision No. 1479/QD-TTg, dated 13 Oct 2008, to approve planning on the system of inland water conservation zones until the year 2020 (this early decision is based on other laws but has an impact on the use of water resources) 	 The People's Committee of Hoa Binh Province's Decision No. 2272/QD-UBND, dated 30 Dec 2014, to approve the adjustment and supplement planning on rural water supplies and hygiene for Hoa Binh Province until the year 2020, with a vision until the year 2030. The People's Committee of Hoa Binh Province's Decision No. 04/2018/QD-UBND, dated 15 Jan 2018, to promulgate the regulation on the management, protection, exploitation and use of water resources in the domain of Hoa Binh Province. 	

Following these requirements, the overview in the table on the relevant sectoral planning focuses on the planning documents relevant for environmental protection in mineral mining (biodiversity, forest protection, water resources).

Also planning on national defense and security has a relevant impact on mining sites as, for example, the areas for army training and for construction aggregates mining are both located in the hinterland. Thus, such planning has to be considered in mineral planning or the zoning of mineral areas.

5.3 Land Use Planning

Mining activities have also to be in accordance with land use planning as designated in the Land Law 2013⁶⁶ and the related Decree 43⁶⁷. The law prescribes the regime of land ownership, powers and responsibilities of the State in representing the entire people as owners of the land and in uniformly managing land, the regime of land management and its use, and the rights and obligations of land users involving land in the territory of the Socialist Republic of Vietnam (Art. 1).

In accordance with Art. 10 Land Law, depending on purpose of use, land is classified into three main types of land use:

- 1) Agricultural land (land for cultivation of annual crops, forest land, aquaculture land, etc.),
- 2) Non-agricultural land (residential land, land for construction of offices, land for national defense or security purposes, etc.),
- 3) Unused land, including land of types for which land use purposes have not been determined yet.

Land used for mining activities and land for production of building materials belong to the category of non-agricultural land, cf. Art. 10 Clause 2 lit. e) Land Law.

The use of land is designated by land use planning laid down in Art 35 ff. Land Law. The "Master Plan on Land Use" is defined as the allocation and zoning of land according to the space used for socio-economic development, defense, security, environmental protection and climate change adaptation objectives on the basis of land potential and the land use needs of branches and domains for each socio-economic region and administrative unit for a specified period of time (Art. 3, Clause 2 Land Law). A land use plan involves the division of a master plan on land use into (shorter) periods of time for implementation during the period of the master plan on land use (ibid, Clause 3).

⁶⁶ The National Assembly's Law No. 45/2013/QH13, dated 29 November 2013.

⁶⁷ The Government's Decree No. 43/2014/ND-CP, dated 15 May 2014, detailing a number of articles of Land Law (Decree 43).

The system of the master plan on land use and plans on land use includes the following planning levels and types of plans (Art. 36 Land Law):

- 1) National master plan and plans on land use.
- 2) Provincial master plan and plans on land use.
- 3) District-level master plan and plans on land use.
- 4) Master plan and plans on land use for national defense.
- 5) Master plan and plans on land use for security.

The period of the master plan on land use is 10 years. The period of land use plans at the national and provincial levels and for national defense and security is 5 years. District-level land use plans must be made every year, Art. 37 Land Law.

5.3.1 Principles of Formulation of Master Plans and Plans on Land Use

Art. 35 Land Law provides principles for the formulation of master plans and plans on land use. In accordance with these principles, the plans have to conform to strategies, master plans and plans on socio-economic development, national defense and security (Art. 35 Clause 1 Land Law).

Art. 35 Clause 2 regulates the interactions of the plans as follows. The master plans and plans on land use have to be formulated from the master level to the detailed level. The master plan on land use of the subordinate level must conform to the master plan on land use of the superior level. The land use plans must conform to the master plan on land use approved by the competent state agencies. The national master plan on land use must take into account specific characteristics and linkages of the socio-economic regions; and the district-level master plan on land use must demonstrate the contents of the commune-level land use.

Further requirements which have to be considered are the economical and efficient use of land (Clause 3), the reasonable exploitation of natural resources and environmental protection and climate change adaptation (Clause 4) and the protection and embellishment of cultural-historical relics and scenic spots (Clause 5). The formulation of the plans has to be democratic and public (Clause 6). The plans have to ensure priority for using the land fund for the purposes of national defense and security and to serve national and public interests, food security and environmental protection (Clause 7). Master plans and plans of the sectors, fields and localities that use land must conform to the master plans, plans on land use already decided or approved by competent state agencies (Clause 8).

5.3.2 Basis and Contents of Master Plans on Land Use and Plans on Land Use

Art. 38 to 41 Land Law provide detailed information concerning the basis for the formulation of the master plans of land use and land use plans and their necessary content. The basis and contents of the *national* plans are regulated in Article 38 Land Law, of the *provincial* plans in Art. 39 Land Law and of

the *district* plans in Art. 40 Land Law. As it is crucial for the MAREX project, we concentrate on the provincial level.

Table 6: Provincial master plans on land use and plans on land use (Vu, IOER)

	Basis	Content
Provincial master plan on land use, Art, 39, Clause 1 and 2 Land Law	a) The national master plan on land use; b) The master plans for socio-economic development of the socio-economic region and the province or independent city; the strategies and master plans on development of sectors and fields; c) Natural and socio-economic conditions of the province or independent city; d) Current land use status, land potential and results of implementation of the provincial master plan on land use in the previous period; e) Land use demands of all sectors and fields and of the province; f) Land use quotas; g) Scientific and technological advances involving land use.	a) Orientation for land use in 10 years; b) Determination of the areas of the land types already allocated in the national master plan on land use and the areas of the land types in accordance with provincial land use demands; c) Determination of land use zones by land use function; d) Determination of the areas of the land types specified at Point b of this Clause for each district-level administrative unit; e) The provincial land use planning map; f) Solutions for the implementation of the master plan on land use.
Provincial land use plan, Art. 39, Clause 3 and 4 Land Law	a) The national 5-year land use plan; the provincial master plan on land use; b) The provincial 5-year and annual socioeconomic development plans; c) Land use demands in 5 years of all sectors and fields and the province; d) Results of implementation of the provincial land use plan in the previous period; e) Ability to invest and mobilize resources for implementing the land use plan.	a) Analysis and evaluation of the implementation of the provincial land use plan in the previous period; b) Determination of the areas of the land types (); c) Determination of the areas of the land types for which land use purposes need to be changed (); d) Determination of the areas and locations of national and provincial construction works and projects (); e) Making the provincial land use plan map; f) Solutions for the implementation of the land use plan.

5.3.3 Responsibilities and Procedures for Establishing the Plans

The government shall organize the formulation of national master plans and plans on land use. The Ministry of Natural Resources and Environment shall assume the prime responsibility for assisting the government in formulating national master plans and plans on land use. Provincial People's Committees shall organize the formulation of provincial-level master plans and plans on land use. District-level People's Committees shall organize the development of district-level master plans and plans on land use. Provincial- and district-level land management agencies shall assume the prime responsibility for assisting their respective People's Committees in the formulation of master plans and plans on land use (Art. 42 Land Law).

The agencies which organize the formulation of master plans and plans on land use shall organize consultations with the people on master plans and plans on land use (Art. 43, Clause 1, Land Law). The forms, contents and timing of consultation with the people on master plans and plans on land use are regulated in ibid, Clause 2. Agencies responsible for conducting consultations with the people on master plans and plans on land use shall prepare reports on summarization, assimilation and explanation of the people's opinions, and improve the master plans and plans on land use before submitting them to the appraisal board for master plans and plans on land use (ibid, Clause 3).

The competence to decide and approve master plans and plans on land use is regulated in Art. 45 Land Law. Thus, the National Assembly shall decide on *national* master plans and plans on land use (ibid, Clause 1). The government shall approve *provincial* plans. Provincial People's Committees shall submit provincial plans to their respective People's Councils for adoption before submitting them to the government for approval (ibid, Clause 2). Provincial People's Committees shall approve district-level master plans and plans on land use (ibid, Clause 3).

5.4 Construction Planning

Mineral mining is also managed by spatial planning, which is called "construction planning" in Vietnam⁶⁸. Spatial planning is regulated by two laws, namely the Law on Construction⁶⁹ (thus it is also referred to as "construction planning") and the Law on Urban Planning⁷⁰. Whereas the Law on Urban Planning sets the rules for the spatial planning of regions which are classified as "urban centers", the spatial planning of the remaining and non-urban regions is under the domain of the Construction Law. Figure 5 illustrates the legal framework on spatial planning regulated by the Construction Law 2014 and by the Urban Planning Law 2009.

⁶⁸ See Luu Duc Minh, in: Müller et al., MAREX – Conference Documentation 27.6. – 1.7.2016, pp. 63 ff.

⁶⁹ Law on Construction No. 50/2014/QH13, the articles of which are amended by Law No. 03/2016/QH14.

⁷⁰ Law on Urban Planning No. 30/2009/QH12, the articles of which are amended by Law No. 77/2015/QH13.

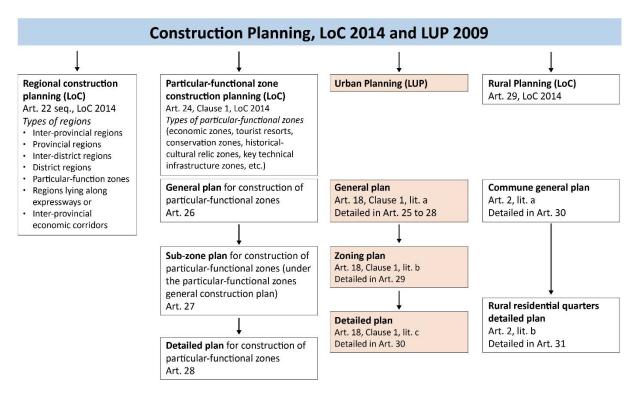


Figure 5: Spatial planning in Vietnam, according to LoC 2014 and LUP 2009 (Vu, IOER)

5.4.1 Construction Planning under the Construction Law

The Construction Law of 2014 prescribes the rights, obligations and responsibilities of agencies, organizations, individuals and state management in construction investment activities, according to Art. 1.

The LoC is supplemented by Decree 44⁷¹ providing detailed regulations on construction planning activities, especially concerning the tasks of the State administration. This decree is again substantiated by Circular 12⁷² stipulating regulations on how to draft proposals and design of regional, urban and functional zone construction planning. At the individual level of investors, Decree 59⁷³ and Decree 42 that amend some articles of Decree 59 are relevant. They regulate the management of construction investment projects.

In Chapter 2, the LoC 2014 provides regulations on construction planning which shall be classified into 4 types (Art. 13, Clause 1):

⁷¹ The Government's Decree 44/2015/ND-CP, dated 6 May 2015, detailing a number of articles on construction planning (Decree 44).

⁷² The Ministry of Construction's Circular No. 12/2016/TT-BXD, dated 29 Jun 2016, on proposals and design of regional, urban and functional zone construction planning (Circular 12).

⁷³ The Government's Decree No. 59/2015/ND-CP, dated 18 Jun 2015, on construction investment project management (Decree 59).

- Regional construction planning (lit. a),
- Urban construction planning (lit. b),
- Particular-function construction planning (lit. c),
- Rural construction planning (lit. d).

Urban planning shall comply with the law on urban planning (ibid, Clause 3) and, consequently, is not regulated by the LoC 2014.

The foundation of construction planning shall include the approved strategies and planning on socio-economic development, national defense, security, sectoral master plans, orientations for planning the national urban center systems and other relevant construction master plans already approved (ibid, Art. 13, Clause 2, lit. a.). Furthermore, construction planning has to be based on the technical regulations for construction planning and other relevant regulations (lit. b) as well as on maps, documents and data on the current local socio-economic situation and natural conditions.

This means that, on the one hand, construction planning is strategically based on economic-technical norms which serve as a tool for the forecasting, determining and selecting of the planning activity. Hence, the economic-technical norms serve as a basis for proposing options and solutions for construction planning, taking into account population size, land, technical and social infrastructure and environmental norms (ibid, Art. 2, Clause 8).

On the other hand, construction planning interlinks land use planning with standards of construction works so that, for instance, the planned areas receive norms for land use [development] related to construction activities. The norms are used to administer or manage spatial and architectural development, specifically identified for an area or a land plot, including the construction density, land coefficient and maximum or minimum construction elevations of construction works (ibid, Art. 3, Clause 7).

5.4.1.1 Regional Construction Planning

Regional construction planning involves the organization of systems of urban and rural areas and particular-function zones and systems of technical and social infrastructure works within the administrative boundaries of a province or a district, inter-provinces or inter-districts, which meets the socio-economic development requirements in each period (Art. 3 no. 31, LoC).

Regional construction planning has to be carried out for 6 regional units:

- 1) Inter-provincial regions (Art. 22, Clause 1, lit. a),
- 2) Provincial regions (lit. b),
- 3) Inter-district regions (lit. c),
- 4) District regions (lit. d),
- 5) Particular-function zones (lit. dd),
- 6) Regions lying along highways or inter-provincial economic corridors (lit. e).

An inter-provincial or provincial construction plan has to provide technical-infrastructure planning as a specialized technical-infrastructure plan, too (Art. 22, Clause 2 LoC).

According to Art. 22, Clause 3, lit. a, the MoC shall assume the prime responsibility for *regional construction planning* in coordination with related ministries, provincial-level People's Committees and agencies and organizations. Their task is to organize the formulation of construction tasks and plans for inter-provincial regions, particular-function zones of national significance, regions lying along highways or inter-provincial economic corridors. Specialized ministries managing construction work shall organize the formulation of inter-provincial technical infrastructure planning tasks and plans (Art. 22, Clause 3, lit. b). The provincial People's Committees shall organize the formulation of construction planning tasks and plans concerning the regions under their administrative competence (Art. 22, Clause 3, lit. c).

In the following, Article 23 outlines the tasks and structure of regional construction planning. The respective planning shall a) provide justifications and bases for the formation of regional boundaries, b) identify regional development objectives, c) forecast the regional population size, technical and social infrastructure demands for each development period, and d) provide requirements relevant to spatial organization for systems of urban centers, rural areas, major areas and functional zones, and systems of technical and social infrastructure facilities on a regional scale in each period.

Regional construction plans are required to cover the following contents and perspectives (Art. 23, Clause 2):

- 1) Inter-provincial, provincial, inter-district or district construction planning, which must identify and analyze regional development potential and driving forces; forecast urbanization speed; provide solutions to divide functional regions and distribute systems of urban centers and rural residential quarters; determine specialized functional zones, production establishments, systems of key technical and social infrastructure facilities of regional significance (ibid, lit. a).
- 2) The particular-function zone construction planning which shall be formed on the basis of socio-economic, defense and security potentials, cultural heritages and natural landscapes; identifying and analyzing development potentials, possible exploitation and division of functional zones, population distribution and organization of the technical infrastructure system in line with the characteristics and development objectives of each zone (ibid, lit. b).
- 3) Construction planning for regions along expressways or inter-provincial economic corridors, which must analyze the driving forces and impacts of the expressways and corridors on the development of these regions, provide solutions for land exploitation and use, organize architectural space and landscape and technical infrastructure systems suitable to the characteristics of the expressways or corridors, and ensure traffic safety along the length of the routes (ibid, lit. c).
- 4) The <u>specialized technical infrastructure construction planning</u>, which must forecast the development and land use demands; identify the locations and sizes of key works, supporting facilities, main transmission networks, distribution networks and work safety protection corridors (ibid, lit. d).

Based on the regional sizes and characteristics, regional construction plans shall be studied on the basis of topographical maps of 1:25,000 - 1:250,000 scales (Art. 23, Clause 22, lit. dd⁷⁴). The planning period for regional construction planning is between 20 and 25 years, with a 50-year vision (ibid, lit. e). The approved regional construction planning serves as a basis for urban planning, particular-function zone construction planning, rural construction planning and technical infrastructure system planning at regional level (ibid, lit. g). Further regulations for regional planning are provided in Art. 7 ff. of Decree 44.

An example is the current Regional Plan of Hoa Binh until 2020, which was approved by the provincial People's Council's Resolution 35⁷⁵ and by the provincial People's Committee's Decision 1314⁷⁶. In the regional plans mineral mines are considered to be part of industrial zones⁷⁷.

5.4.1.2 Construction Planning for Particular-Function Zones

Particular-function zone construction planning means the organization of space, architecture and landscape and systems of technical and social infrastructure works within a particular-function zone. The particular-function zone construction planning covers general construction planning, construction sub-zone planning and construction detailed planning (Art. 3 no. 31 LoC). The construction planning for a particular-function zone is sub-divided in Art. 24, Clause 1, LoC into 8 types according to their functionality:

- 1) Economic Zones (lit. a),
- 2) Industrial Parks (lit. b),
- 3) Tourist resorts, ecological resorts (lit. c),
- 4) Conservation zones, revolutionary, historical-cultural relic zones (lit. d),
- 5) Research and training zones, physical training and sports zones (lit. dd),
- 6) Airports, seaports (lit. e),
- 7) Key technical infrastructure zones (lit. g),
- 8) Other particular-function zones identified under the approved regional construction planning or established on the decision of competent state agencies (lit. h).

Economic zones in the sense of Clause 1 lit. a) are the Hanoi Capital region, the Northern Coast, the Northern Midland and Mountainous Region, the North Central Coast, the Central Highlands, the Central Southern Coast, the Key Economic Zone, Ho Chi Minh City and the Mekong River Delta⁷⁸.

⁷⁴ In the Vietnamese version of the LoC, the letter "đ" of the Vietnamese alphabet is used. In the English version this letter translated with "dd".

⁷⁵ The People's Council of Hoa Binh Province's Resolution No. 35/NQ-HDND, dated 10 Jul 2012, on the regional construction planning for Hoa Binh Province until the year 2020.

⁷⁶ The People's Committee of Hoa Binh Province's Decision No. 1314/QD-UBND, dated 25 Sep 2012, to approve the project of regional construction planning for Hoa Binh Province until the year 2020.

⁷⁷ Luu Duc Minh, in: Müller et al., MAREX – Conference Documentation 27.6.-1.7.2016, p. 63.

⁷⁸ Ministry of Land, Infrastructure, Transport, and Tourism, Japan, An overview of spatial policy in Asian and European Countries (Contributor: Nguyen Du Minh, Urban Development Agency, Viet Nam, information update: February 16, 2015; http://www.mlit.go.jp/kokudokeikaku/international/spw/general/vietnam/index_e.html;

Regarding construction planning of economic zones, the area of Hoa Binh province is considered relevant in the construction planning for the larger Northern Midland and Mountainous Region, as per the Prime Minister's Decision 980⁷⁹ from 2013, and in the construction planning of the enlarged Hanoi Capital Region, approved by the Prime Minister's Decision No. 768⁸⁰.

Art. 25 LoC distinguishes three levels of particular-function zone construction planning:

- 1) The level of <u>construction general planning</u> (which shall be carried out for particular-function zones of a size of 500 hectares or over that serve as a basis for sub-zoning planning and construction detailed planning)
- 2) The level of construction sub-zone planning (which shall be carried out for particular-function zones of a size of under 500 hectares that serve as a basis for construction detailed planning)
- 3) The level of <u>construction detailed planning</u> (which shall be carried out for areas within particular-function zones that serve as a basis for the granting of construction permits and formulation of construction investment projects).

The plans representing the three levels have different contents and tasks which are prescribed in Art. 26 LoC (general plans for construction of particular-function zones), Art. 27 LoC (sub-zone planning for construction of particular-function zones) and Art. 28 LoC (detailed planning for construction in particular-function zones).

5.4.1.3 Rural Construction Planning

Rural construction planning involves the organization of space, land use, systems of technical infrastructure and social infrastructure works of a rural area. In accordance with Art. 3 no. 33 LoC, rural construction planning covers:

- 1) Commune construction general planning (cf. Art. 30 LoC) and
- 2) Rural residential quarter construction detailed planning (cf. Art. 31 LoC).

Rural construction planning is carried out for communes and rural residential quarters (Art. 29, Clause 1 LoC). This planning type is classified into two levels: firstly, construction general planning, which is carried out for the entire administrative boundaries of communes (Clause 2, lit. a), and, secondly, construction detailed planning, which is carried out for rural residential quarters (lit. b). Prime responsibility is allocated to the commune-level People's Committees for organizing the formulation of tasks of and plans on rural construction (Art. 29, Clause 3 LoC).

⁷⁹ The Prime Minister's Decision No. 980/QD-TTg, dated 21 Jun 2013, to approve the regional construction planning for the Northern Midland and Mountainous Region.

Müller/Schiappacasse, Planning for the responsible extraction of natural aggregates, p. 22 (MAREX Publication Series – Issue 7).

⁸⁰ The Prime Minister's Decision No. 768/QD-TTg, dated 6 May 2016, to adjust the construction planning for the Hanoi Capital Region until the year 2030 with a vision until the year 2050.

5.4.1.4 Appraisal, Approval, Adjustment and Publication of Construction Planning

The legal framework for the appraisal, approval, adjustment and publication of construction planning is provided in Art. 32 to 44 LoC.

After appraisal of construction planning tasks and plans (regulated in Art. 32 and 33 LoC), the prime minister is competent to approve the following types of construction planning (Art. 34, Clause 1):

- 1) Construction planning for inter-provincial regions, construction planning for provincial regions, construction planning for particular-function zones and construction planning for regions lying along expressways or inter-provincial economic corridors; specialized planning for inter-provincial technical infrastructure (ibid, lit. a),
- 2) General construction planning for economic zones, general construction planning for hi-tech parks (ibid, lit. b),
- 3) General construction planning for tourist resorts, ecological resorts, conservation zones, revolutionary and cultural-historical relics zones, research and training zones, physical training and sports zones and other particular-function zones of national level (ibid, lit. c),
- 4) Other types of construction planning carried out by the Ministry of Construction as assigned by the prime minister (ibid, lit. d).

Provincial-level People's Committees shall approve the following construction planning tasks and plans (Art. 34, Clause 2):

- 1) Construction planning for inter-district regions, construction planning for district regions;
- 2) General construction planning for particular-function zones, except the types of planning prescribed at Point c, Clause 1 of this article;
- 3) Planning for construction of particular-function zones.

The district-level People's Committees shall approve the sub-zone planning tasks and plans, and the detailed construction planning and planning for rural construction under their administrative domain. However, this shall happen after they have obtained written consent from the provincial Department of Construction to do so (Art. 34, Clause 3).

5.4.2 Urban Planning according to the Law on Urban Planning

The stipulations for urban planning are provided in the Law on Urban Planning (LUP 2009 or LUP⁸¹). The law was passed in order to especially regulate urban planning activities in Vietnam including the formulation, evaluation, approval and adjustment of urban planning, as well as to organize the implementation of urban planning and manage urban development according to approved urban planning (Art. 1 LUP). This section will give a brief overview of the legal basis of urban planning, as the

⁸¹ The National Assembly's Law No. 30/2009/QH12, dated 17 June 2009, on Urban Planning (LUP 2009 or LUP).

urban growth of especially the Hanoi Metropolitan Region will trigger the demand for construction materials supply and, thus, the extraction of construction aggregates⁸².

The LUP defines *urban planning* as the organization of the space, architecture, urban landscape and system of technical and social infrastructure facilities and houses in order to create an appropriate living environment for people living in an urban center, which is expressed on an urban plan (Art. 3, Clause 4). The result has to be presented as an urban plan, a document that reflects the contents of urban planning, providing drawings, mock-ups, explanations and regulations on management according to urban planning (ibid, Clause 5).

5.4.2.1. Classification and Levels of Administration of Urban Centers

Urban planning shall deploy the classification and levels of administration of urban centers (Art. 4 LUP). In accordance with the definition in Art. 3 Clause 1 LUP, an urban center is an area with a dense population mainly engaged in non-agricultural economic activities, which is a political, administrative, economic, cultural or specialized center playing the role of promoting the socioeconomic development of a country, a territorial region or a locality. It consists of the inner city and suburbs, for a city; inner town and outskirts, for a town; and townships. Urban centers are classified into 6 grades, including a special grade and the grades I, II, III, IV and V (Art. 4, Clause 1).

5.4.2.2 Compliance with and Requirements on Urban Planning

Any organization and individual involved in the field shall comply with the approved urban planning and regulations on the management of urban planning and architecture when implementing programs and plans on investment in urban construction and development, specialized plans within urban centers and urban land use plans. Compliance with urban planning is also required when managing the implementation of construction investment projects in urban centers, managing urban space, architecture and landscape or carrying out other activities related to urban planning (Art. 5).

Among the requirements of urban planning, one relevant task is to concretize the orientation of the planning on the national system of urban centers and related regional plans, to comply with the objectives of the strategy and planning on socio-economic development, defense and security, and to ensure consistency with branch development plans within urban centers. Lastly, urban planning shall ensure publicity and transparency and the harmonious combination of the interests of the nation, communities and individuals (Art. 6, Clause 1). Moreover, urban planning shall protect the environment, prevent catastrophes affecting the community, improve the landscape, conserve

⁸² See for detail Müller, Schiappacasse, Planning for the responsible extraction of natural aggregates, 2019 (MAREX Publication Series – Issue 7).

cultural and historical relics and local traits through strategic environmental assessment in the course of urban planning (ibid, Clause 3), as well as rationally exploiting and utilizing natural resources, restricting the use of agricultural land and economically and efficiently using urban land (ibid, Clause 4).

5.4.2.3 Process of Urban Planning

In accordance with Article 7 LuP, the elaboration, evaluation and approval of urban planning must comply with the following order:

- 1) Elaboration of urban planning tasks;
- 2) Evaluation and approval of urban planning tasks;
- 3) Formulation of urban plans;
- 4) Evaluation and approval of urban plans.

The requirements and contents of planning tasks are regulated in Art. 22 and 23 LuP. Urban planning tasks must determine development viewpoints and objectives in response to the requirements of each urban center and each planned area as a basis for conducting studies to make urban plans (Art. 22, Clause 1). Urban planning tasks must be approved by competent agencies under Articles 44 and 45 of this Law (ibid, Clause 2). The contents of urban planning tasks are defined in Art. 23 Clause 1 for general urban planning, in Art. 23, Clause 2 for zoning planning and in Art. 23, Clause 3 for detailed planning. The making of the urban plans is specified in Art. 24 ff., the evaluation and approval of urban planning is the subject of Art. 41 ff. and the adjustment of urban planning is regulated in Art. 46 ff. LuP.

The formulation, evaluation, approval and management of urban planning are explained in detail by the Government's Decree 37 ⁸³ 2010 and supplemented by the Circular 12 by the Ministry of Construction, which provides technical guidance on proposals and design of construction planning for regions, for urban planning and particular-functional zone planning.

5.4.2.4 Basis and Types of Urban Planning

The basis for urban planning is provided by orientations given by the national system of urban centers, determined in a master plan on the national system of urban centers. The Ministry of Construction shall use the strategy and master plan on socio-economic development, defense and security as a basis to formulate orientations of the master plan and submit them to the prime minister for approval (Art. 17 LuP).

⁸³ The Government's Decree No. 37/2010/ND-CP, dated 7 April 2010, on the formulation, evaluation and approval of urban planning (Circular 37).

The Law requires three types of urban planning (Art. 18, Clause 1, lit. a, b, c):

- 1) General planning which is undertaken for
 - independent cities,
 - provincial cities, towns,
 - townships,
 - new urban centers;
- 2) Zoning planning which is undertaken for areas as a part of
 - cities,
 - towns,
 - new urban centers;
- 3) Detailed planning, which is undertaken for areas to meet urban development and management requirements or construction investment needs.

General planning

"General planning" is the organization of the space and system of technical and social infrastructure facilities and houses for an urban center suitable to its socio-economic development, ensuring defense, security and sustainable development (Art. 3 Clause 7 LuP). Requirements with regard to the content of general plans are provided in Art. 25 (independent cities), in Art. 26 (provincial cities and towns), in Art. 27 (townships) and in Art. 28 (new urban centers).

The general plan of provincial cities and towns of Hoa Binh province referring to Art. 26 LuP was promulgated as per HB-Decision 2431⁸⁴. Connected with HB-Decision 2431, the People's Committee of Hoa Binh Province approved the scheme to implement the program on urban development in Hoa Binh Province until 2020 (HB-Plan 55⁸⁵).

The development of the construction aggregates industry of Hoa Binh province is impacted by a general plan of new urban centers according to Art. 28 LuP which is the Prime Minister's Decision 623⁸⁶ on development of the urban centers of Vietnam to adapt to climate change.

⁸⁴ The People's Committee of Hoa Binh Province's Decision's No. 2431/QD-UBND, dated 4 Dec 2017, to approve the program on urban development for Hoa Binh Province, in the period 2016-2020, and perspectives toward the year 2030 (HB-Decision 2431).

⁸⁵ The People's Committee of Hoa Binh Province's Plan No. 55/KH-UBND, dated 19 Apr 2018, on implementation of the program on urban development for Hoa Binh Province to achieve an urbanization rate of 25% until 2020 (HB-Plan 55).

⁸⁶ The Prime Minister's Decision No. 2623/QD-TTg, dated 31 Dec 2013, to approve the project on

[&]quot;Development of the urban centers of Vietnam to adapt to climate change in the period 2013-2020" (Decision 2623).

A large but indirect impact will arise from the general planning on construction of Hanoi capital up to 2030, with a vision toward 2050 as per Decision 1259 ⁸⁷, as that plan will especially increase infrastructure investment interconnecting Hanoi with Hoa Binh.

Zoning planning

"Zoning planning" is the division and determination of functions and norms on the use of the planned urban land of areas and networks of social and technical infrastructure facilities within an urban area in order to concretize a general plan (Art. 3 Clause 8 LuP). Requirements with regards to the content of zoning plans are stipulated in Art. 29 LuP. A zoning plan must accordingly provide the following indicators:

- The usage functions for each lot of land;
- Principles of organization of space, architecture and landscape for the entire planned area;
- Norms on population, land use and technical infrastructure for each street block;
- Arrangement of social infrastructure facilities in response to utility needs;
- Arrangement of the network of technical infrastructure facilities in each street suitable to each development period of the urban center;
- Strategic environmental assessment (Clause 1).

Drawings of a zoning plan shall be made on a 1:5,000 or 1:2,000 scale (Clause 2). The period of a zoning plan shall be determined on the basis of the period of the general planning and urban management and development requirements (Clause 3). The approved zoning plan serves as a basis for identifying construction investment projects in the urban center and conducting detailed planning (Clause 4).

Detailed planning

"Detailed planning" involves the division and determination of norms on the use of planned urban land, requirements concerning management of the architecture and landscape of each lot of land and arrangement of technical and social infrastructure facilities in order to concretize a zoning plan or general plan (Art. 3 Clause 9 LuP). Requirements with regards to the content of detailed plans are provided in Art. 30 LuP. Accordingly, a detailed plan must indicate the norms on population, social and technical infrastructure and requirements concerning the organization of space and architecture for the entire planned area; the arrangement of social infrastructure facilities in response to use needs; norms on land use and architectural requirements for each lot of land; arrangement of the network of technical infrastructure facilities up to the boundary of each lot of land; and the strategic environmental assessment (Clause 1). Drawings of a detailed plan shall be made on a 1:500 scale (Clause 2). The period of a detailed plan shall be determined on the basis of the period of the zoning

⁸⁷ The Prime Minister's Decision No. 1259/QD-TTg, dated 26 Jul 2011, to approve general planning on the construction of Hanoi capital up to 2030, with a vision toward 2050 (Decision 1259).

planning and urban management and development requirements (Clause 3). The approved detailed plan serves as a basis for granting construction permits and formulating construction investment projects (Clause 4).

Urban design

The Law on Urban Planning also provides regulations on urban design, which is part of an urban plan (Art. 32 ff.). The details of urban design are regulated in Art. 33 LuP for general plans (Clause 1), zoning plans (Clause 2), detailed plans (Clause 3) and separate urban design plans (Clause 4). It is noteworthy that the State can regulate the composition of materials for use in urban design (ibid, Art. 33, Clause 4). Furthermore, a regulation on the management of the detailed urban plan (Art. 35, Clause 3, lit. a) and a regulation on the management of the urban design plan (ibid, Clause 4, lit. b) shall also contain stipulations concerning the building materials. However, such regulations do not deal with the environmental impacts of the building materials, but rather concern architectural matters.

Technical infrastructure planning

Technical infrastructure planning constitutes part of general planning, zoning planning or detailed planning. Particularly for independent cities, technical infrastructure planning is undertaken separately as specialized technical infrastructure planning (Art. 18, Clause 2). The objects and contents of technical infrastructure planning are specified in Art. 36 f. LUP. Urban technical infrastructure planning shall be conducted for the following objects: 1. urban transport, 2. urban base heights and surface water drainage, 3. urban water supply, 4. urban wastewater drainage, 5. energy supply and urban lighting, 6. information and communication and 7. cemeteries and solid waste treatment. A specialized technical infrastructure plan shall be made for each technical infrastructure object in the whole urban center (Art. 38, Clause 1 LuP).

5.4.2.5 Public Participation

Art. 20 and 21 LuP regulate public participation in urban planning. Agencies organizing urban planning and investors of construction investment projects shall collect comments of concerned agencies, organizations, individuals and communities on urban planning tasks and urban plans (Art. 20, Clause 1, LuP). Contributed comments must be fully synthesized, explained, assimilated and reported to competent authorities for consideration before approval of urban planning (ibid, Clause 4).

1. Concerned agencies, organizations and individuals shall be consulted by sending dossiers and documents or holding conferences or workshops. Consulted agencies and organizations shall give written replies (Art. 21 Clause 1 LuP). The time limit for giving comments is at least 15 days for agencies, and 30 days for organizations, individuals and communities (ibid, Clause 4).

5.4.3 Requirements of Spatial Planning for the Sustainable Use of Building Materials

The sustainable use of building materials plays a minor role in the LoC and in the LUP. However, the Construction Law recommends the use of innovative/new construction materials (Art. 10, Clause 10). Building materials which have a negative impact on public health and the environment shall not be produced or deployed (Art. 12, Clause 12). More exactly, Art. 110 of the LoC deals particularly with requirements on the use of building materials as follows:

- 1) Requirements concerning the use of building materials are safety, efficiency, thriftiness and environmental friendliness;
- 2) Materials and structures used in a construction work must comply with the approved construction designs and technical instructions (if any), ensuring quality in accordance with the law on standards, technical regulations and the law on quality of products and goods;
- 3) Building materials used for manufacture and processing of semi-finished products must comply with Clauses 1 and 2 of this article;
- 4) Priority shall be given to using local and domestic materials. For projects using state funds, the use of imported materials must be stated in bidding dossiers or dossiers of requirements suitable for construction designs and technical instructions (if any) decided by investment decision-makers.

A brief look into the Law on Standards and Technical Regulations, and the Law on Quality of Products and Goods (LQPG) ⁸⁸ shows that the legal document does not reflect the issue of environmental protection at all. There is only a single note in Art. 18 in the LQPG, prescribing that the consumers are obliged to obey the regulations of the Law on Environmental Protection in the process of using products and goods. However, the LQPG provides that the consumers shall consider only the *direct impact of the products used*.

5.4.3.1 Strategic Environmental Assessment (SEA) under the Law on Construction

Another obligation is to consider the environmental impact of the extraction of building materials in the Strategic Environmental Assessment (SEA) of the construction plan for the area where the mine is situated. The direct impacts of mining on the environment which have to be assessed include impacts on landscape quality (disruption of natural terrain, etc.), erosion and subsidence of the surrounding areas caused by excavation, deterioration of water etc. According to the Construction Law, a strategic environmental assessment (SEA) has to be conducted for the following three kinds of plans:

- 1) The general construction plan of particular-function zones (Art. 26, Clause 2, lit. a),
- 2) The general construction plan of exclusive particular-function zones (ibid, Clause 3), and
- 3) The plan on sub zones for construction of a particular-function zone (Art. 27, Clause 2, lit. a).

⁸⁸ The National Assembly's Law No. 05/2007/QH12, dated 21 Nov 2007, on the quality of products and goods (LQPG 2007 or LQPG).

However, Decree 44 detailing some articles of the LoC expands the obligation of conducting a SEA as a mandatory task to the following six types of construction plans:

- 1) Regional construction planning (Art. 7, Clause 1, lit. d; Art. 8, Clause 1, lit. g, Decree 44),
- 2) Particular-function zone planning (ibid, Art. 11, Clause 1, lit. c; Art. 12, Clause 1, lit. g),
- 3) Particular-function sub-zone planning (ibid, Art. 13, Clause 1, lit. e),
- 4) Detailed particular-function zone planning (ibid, Art. 14, Clause 1, lit. e),
- 5) General commune planning (ibid, Art. 18, Clause 1, lit. e), and
- 6) Detailed projects for rural residential planning (ibid, Art. 19, Clause 1, lit. e).

5.4.3.2 Strategic Environmental Assessment (SEA) in the Law of Urban Planning

The environmental impact of the extraction of building materials and the flow of materials may also be considered in the SEA of the urban plan, also where the extracted building materials are used – for instance in the general plan of Hanoi. The Law on Urban Planning requires that urban planning shall protect the environment, prevent catastrophes affecting the community, improve the landscape, and conserve cultural and historical relics and local traits through strategic environmental assessments in the course of urban planning (Art. 6, Clause 3 LUP).

The SEA is of mandatory consideration for urban planning tasks, according to Art. 23, Clauses 1 to 3 which is specified by Decree 37⁸⁹. Therefore, a SEA is required as a basis for making urban plans for:

- 1) General plans of independent cities (Art. 25, Clause 1 LUP; Art. 15, Clause 7, lit. a to d, Decree 37),
- 2) General plans of provincial cities or towns (Art. 26, Clause 1 LUP), by deploying the SEA requirements outlined in Art. 15, Clause 7 of the Decree (Art. 16, Clause 6, Decree 37),
- 3) General plans of townships (Art. 27, Clause 1 LUP) and urban centers of class V which are not yet recognized as townships (Art. 17, Clause 6, Decree 37),
- 4) General plans of new urban centers (Art. 28, Clause 1 LUP), an area which is not addressed by Decree 37,
- 5) Zoning plans (Art. 29, Clause 1 LUP; Art. 19, Clause 7, lit. a-d, Decree 37), and
- 6) Detailed plans (Art. 30, Clause 1 LUP; Art. 20, Clause 6, lit. a-d, Decree 37).

The SEA is also mandatory when submitting technical infrastructure planning (cf. Art. 22 ff., Decree 37).

Both the urban plan and the corresponding SEA report have to be evaluated simultaneously (Art. 40, Clause 1 LUP). The agency that evaluates the urban planning shall assume prime responsibility for this process and coordinate with the competent environment management agency in order to evaluate the SEA report (ibid, Clause 2).

⁸⁹ The Government's Decree No. 37/2010/ND-CP, dated 7 Apr 2010, on the formulation, evaluation, approval and management of urban planning (Decree 37).

To support the execution of SEA requirements for both construction plans and urban plans, the Ministry of Construction promulgated Circular 01^{90} . It shall guide the SEA in construction and urban plans, including regional construction plans, general plans, zoning plans, detailed plans, rural-population quarter construction plans and specialized technical infrastructure plans (Art. 1, Clause 1, Circular 01), and is applicable to domestic and foreign organizations and individuals involved in the formulation, appraisal, approval and management of construction planning (ibid, Clause 2).

Circular 01 provides regulations on the SEA method (Art. 5 to Art. 10), the contents of SEA (Art. 11 to Art. 16), the form and structure of SEA reports and the appraisal thereof (Art. 17 to Art. 20), and the organization of implementation (Art. 21 et seq.).

5.4.3.3 Stipulations regarding SEA in the LEP 2014 and Decree 18

The process of SEA report formulation in spatial planning is also determined by the LEP 2014 and the respective Decree 18⁹¹ discussed in Section 4.4 of the present study. The general process to implement and assess an application for a SEA report is regulated by the LEP and by Circular 27 on strategic environmental assessment, environmental impact assessment and environmental protection plans including official forms and templates. The Circular especially details the SEA procedure in Art. 3 to 5 and provides regulations on the SEA report assessment council (Art. 18 ff.). The following scheme summarizes the legal framework for environmental protection in spatial planning:

⁹⁰ The Ministry of Construction's Circular No. 01/2011/TT-BXD, dated 27 Jan 2011, to guide the strategic environmental assessment in construction and urban plans (Circular 01).

⁹¹ The Government's Decree No. 18/2015/ND-CP, dated 14 Feb 2015 on environmental protection assessment, strategic environmental assessment, environmental impact assessment and environmental protection plans.

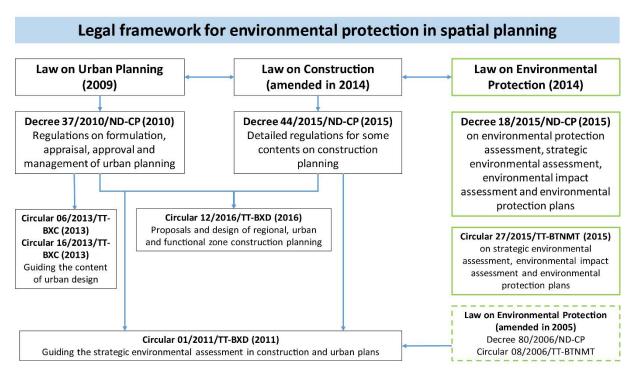


Figure 6: Legal framework for environmental protection in spatial planning (Vu, IOER)

5.4.4 The SEA as a Tool to integrate Environmental Protection Planning in the Processes of Spatial Planning

Integration towards a spatial-environmental planning approach is a demanding task, reflecting the "complex" character of the aggregates mining industry⁹². In general, planning policies are part of a (national) mineral policy framework, which should tackle three issues:

- To raise awareness of the importance of mining aggregates,
- To consider the predicted medium- to long-term demand and the need to access resources,
- To (environmentally and socially) assess the exploration and development of extractive activities.

Governance of the supply and demand of aggregates is therefore based on a refined linkage between the national level or mineral strategy and the operative level or regional planning, whereas in many cases the emphasis is on environmental protection through the promotion of a reduced use of minerals and the recycling of materials. This is the best way to strategically preserve future mining areas at a regional or local level (ibid).

After the closure of mines, land is used for various purposes such as complex services, tourism, adventure sport, etc. Different land uses and land use conflicts induced by mining areas, urban residential areas, preservation areas and tourist areas pose major challenges for planning sustainable

⁹² Müller, Schiappacasse, Planning for the responsible extraction of natural aggregates, 2019, p. 9.

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urban development⁹³. With regard to the pilot region of the MAREX project, Luong Son district, the lack of solutions for re-cultivation in the post-mining phase represent particular gaps in the construction planning. Decree No. 37/2010/ ND-CP and Decree No. 44/2015/ND-CP, which are relevant for the implementation of spatial planning, provide regulations on the SEA in urban and construction planning. But specific regulations on mining integration in planning and policy making processes are missing, especially in respect of regional construction planning⁹⁴.

A proposed solution to overcome these limitations is to integrate spatial planning, environmental protection planning (EPP) and mineral planning. The SEA is not only seen as a technical tool for assessing the impacts on the environment caused by the plan, but also as an important management tool of the integration process. It refers to the Ministry of Construction's Circular No. 11/2011/TT-BXD guiding the SEA in any construction planning and urban planning project, defining the SEA as the process of analyzing and forecasting the environmental impacts of the construction project prior to approval in order to provide an optimal plan for the construction planning project oriented towards sustainable development.

Intended results of integrated planning are the definition of environmental pollution risks, exploitation stages, environmental protection buffer zones, and recommendations for recultivation according to the different exploitation stages ⁹⁵. In this context, it is suggested that to integrate spatial planning and environmental protection planners may apply the tool of *functional zoning* which is usually considered to be the first period of a planning cycle. Environmental protection planning in conjunction with spatial planning for the mineral mining sector would thus involve the planning, organization and arrangement of environmental protection measures aimed at preventing and minimizing pollution from the mining process in order to contribute to sustainable development for the mining area.

Luu Duc Minh et al. 96 propose a scheme to combine the processes of EPP, SEA and spatial planning for mining areas as follows:

⁹³ Luu Duc Minh et al., in: Proceedings of the International Conference on Environment and Sustainable Development in Mineral Resource Extraction, Hanoi, 29-30 October 2017, p.178, 179.

⁹⁴ Luu Duc Minh et al., ibid, p. 179.

⁹⁵ Luu Duc Minh et al., ibid, p. 183.

⁹⁶ Luu Duc Minh et al., ibid, p. 181.

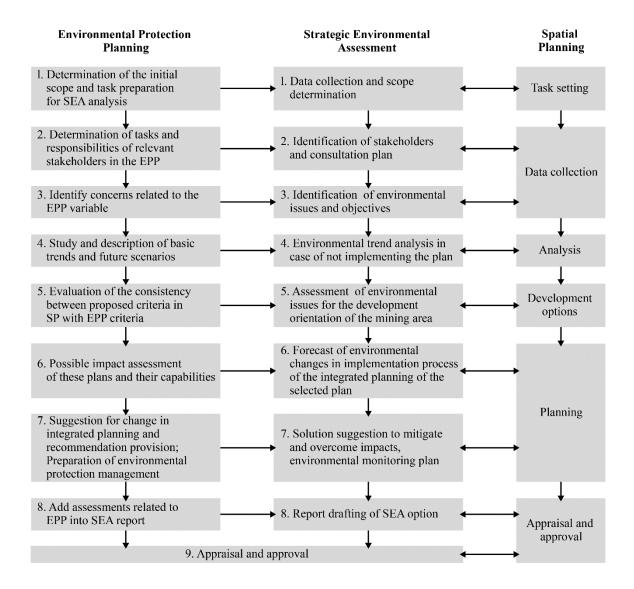


Figure 7: Linkages of processes between EPP, SEA and spatial planning (Luu Duc Minh et al. 2017)

5.5 The Law on Planning

The planning system in Vietnam is currently undergoing a process of reshaping which was triggered by the new Law on Planning (LoP). The Law has been in the making for some years, under the auspices of the Ministry of Planning and Investment and was passed by the 14th National Assembly of Vietnam on 24 November 2017. Pursuant to the LoP's provisions on shaping the new national planning system, the National Assembly promulgated Law No. 35/2018/QH14, dated 20 Nov 2018, to provide amendments to some articles concerning the planning of 37 laws. This amendment law took effect on 01 Jan 2019.

The LoP's scope is to provide for the formulation, appraisal, decision or approval, communication, implementation, assessment and adjustment of the planning under the national planning system, as well as the State's responsibility in the management of planning (Art. 1, LoP). "Planning" means the spatial arrangement and distribution of socio-economic, national defense and security activities in combination with infrastructure development, use of natural resources and environmental protection

in a defined territory in order to effectively use the resources of the country in the service of sustainable development for a definite period of time (Art. 3, Clause 1 LoP).

The LoP is applicable to organizations and individuals involved in the processes under Art. 1 and other relevant organizations and individuals (Art. 2 LoP). However, the contents of urban and rural planning, and the development, appraisal, approval, implementation and adjustment thereof are still regulated by the Law on Urban Planning and the Law on Construction (Art. 28 LoP).

The law consists of 6 chapters with general provisions (Chapter I); provisions on planning formulations (Chapter II); provisions on appraisal, decision or approval, communication and provision of information on planning (Chapter III); provisions on implementation, assessment and adjustment of planning (Chapter IV); provisions on state management of planning (Chapter V), and providing implementation Clause (Chapter VI). In the following, some basic contents are introduced.

5.5.1 Basic Principles of Planning

Art. 4 LoP provides 8 basic principles of planning which are shown in the following box.

<u>Principle I</u>	Comply with regulations of this law, other relevant regulations of law and international treaties to which the Socialist Republic of Vietnam is a signatory.
Principle II Principle III	Ensure uniformity between planning and the socio-economic development strategy and plan, ensure the coordination of sectoral management and territorial management; ensure national defense and security; protect the environment. Ensure compliance, continuity, inheritance, stability and hierarchy in the national planning system.
Principle IV	Ensure participation of the people, the public, other organizations and individuals; ensure harmony of national interests, interests of regions and areas and the people with an emphasis on national interests; ensure gender equality.
<u>Principle V</u>	Ensure scientism, the application of modern technology, interconnection, forecast, feasibility, economization and effective use of national resources; ensure objectivity, publicity, transparency and conservation.
Principle VI	Ensure independence between the planning authority and planning appraisal council.
Principle VII	Provide resources to implement planning.
Principle VIII	Ensure uniform state management of planning, appropriate assignment and authorization between regulatory authorities.

Box 4: Eight principles of planning in the LoP 2017 (Vu, IOER)

5.5.2 Types of Planning and Planning Hierarchy

Based on these principles the LoP prescribes the national planning system of Vietnam to include five types of planning (Art. 5) which will re-arrange the planning system of Vietnam in the future:

1) National planning (includes national comprehensive planning, national marine spatial planning, national land use planning and national sector planning) (ibid, Clause 1),

- 2) Regional planning (ibid, Clause 2),
- 3) Provincial planning (ibid, Clause 3),
- 4) Special administrative-economic unit planning (decided by the National Assembly) (ibid, Clause 4),
- 5) Urban planning, rural planning (ibid, Clause 5).

The relevant definitions of the kinds of planning under Art. 5 LoP are provided in Article 3 LoP:

- "National comprehensive planning" refers to national and strategic planning concerning zoning and interconnecting regions of a territory, including mainland, islands, archipelagoes, territorial waters and airspace, urban and rural systems, infrastructure, use of natural resources and environmental protection, natural disaster preparedness, climate change resilience, assurance of national defense and security and international integration (ibid, Clause 2, LoP)⁹⁷. Contents of the national comprehensive planning are listed in Article 22 LoP.
- "National marine spatial planning" refers to national planning that is aimed at realizing national comprehensive planning for the zoning of various fields and sectors within coastal areas, islands, archipelagoes, territorial waters and airspace that belong to the sovereignty, sovereign rights and national jurisdiction of Vietnam (ibid, Clause 3 LoP). Contents of the provincial planning are listed in Article 23 LoP.
- "National land use planning" refers to national planning that is aimed at realizing national comprehensive planning for the allocation and zoning of land used by fields, sectors and areas on the basis of land potential (ibid, Clause 4 LoP). Contents of the provincial planning are listed in Article 24 LoP.
- "National sector planning" refers to national planning that is aimed at realizing national
 comprehensive planning according to sectors on the basis of interconnecting sectors and
 regions related to infrastructure, use of natural resources, environmental protection and
 biodiversity conservation (ibid, Clause 5 LoP). Contents of national sector planning are listed
 in Article 25 LoP.
- "Regional planning" refers to the planning that is aimed at realizing national comprehensive planning at regional level in terms of spaces used for socio-economic, national defense and security activities, the urban system and rural population distribution, development of interprovincial regions, infrastructure, water resources of river basins, use of natural resources and environmental protection on the basis of provincial interconnections (ibid, Clause 7 LoP). A "region" is a part of a national territory that includes some neighboring provinces and central-affiliated cities adjacent to some river basins or has similarities in natural and socio-economic conditions, history, population and infrastructure, and has an interrelationship that creates a strong connection (Art. 3, Clause 6 LoP). Contents of regional planning are listed in Article 26 LoP.
- "Provincial planning" refers to planning that is aimed at realizing national comprehensive planning and regional planning at provincial level in terms of spaces used for socio-economic, national defense and security activities, the urban system and rural population distribution, land allocation, infrastructure, use of natural resources and environmental protection on the basis of interconnections of national, regional, urban and rural planning (ibid, Clause 8 LoP). The contents of provincial planning are listed in Article 27 LoP.

⁹⁷ In Vietnam, the scheme of comprehensive planning has already been adopted in the field of socio-economic development according to Decree 04 as per Art. 1, Clause 3 from 2008 (see Section 5.1 of this report), but the understanding was "less comprehensive" than in the LoP.

The term "special administrative-economic unit planning" is not defined in the LoP. The Vietnamese lawmakers are currently working on regulations for special administrative-economic units which are envisaged as national planning.

The terms "urban planning" and "rural planning" are defined in the Law on Urban Planning and Law on Construction. In accordance with Art. 28 LoP, such planning shall be carried out in accordance with the regulations of these laws.

The following figure provides an overview of the planning system of Vietnam.

Table 7: Levels of the most relevant kinds of planning under the LoP (Vu, IOER)

Planning level	Kind of planning	Definition as per Art. 3	Approving authority
National	National comprehensive planning (Art. 6, Clause 1)	National and strategic planning towards zoning and interconnecting regions of a territory, infrastructure, use of natural resources and environmental protection, natural disaster preparedness, climate change resilience, assurance of national defense and security and international integration	National Assembly (Art. 34, Clause 1)
	National marine spatial planning (Art. 6, Clause 1)	Zoning of various fields and sectors within coastal areas, islands, archipelagoes, territorial waters and airspace	National Assembly (Art. 34, Clause 1)
	National land use planning (Art. 6, Clause 1)	Allocation and zoning of land used by fields, sectors and areas on the basis of land potential	National Assembly (Art. 34, Clause 1)
	National sector planning (Art. 6, Clause 2)	Interconnection of sectors and regions related to infrastructure, use of natural resources, environmental protection and biodiversity conservation	Prime Minister (Art. 34, Clause 1)
Regional	Regional planning (Art. 6, Clause 3)	Spaces used for socio-economic, national defense and security activities, the urban system and rural population distribution, development of interprovincial regions, infrastructure, water resources of river basins, use of natural resources and environmental protection on the basis of provincial interconnections	Prime Minister (Art. 34, Clause 1)
Provincial	Provincial planning (Art. 6, Clause 3)	Spaces used for socio-economic, national defense and security activities, the urban system and rural population distribution, land allocation, infrastructure, use of natural resources and environmental protection on the basis of interconnections of national, regional, urban and rural planning	Prime Minister (Art. 34, Clause 1)

There is a *hierarchical* relationship between the types and levels of planning laid down in Art. 6 LoP. Among the planning types, national comprehensive planning serves as the basis to formulate national marine spatial planning, national land use planning, national sector planning, regional planning, provincial planning, special administrative-economic unit planning, urban planning and rural planning (Art. 6, Clause 1). The national sector planning shall conform to national comprehensive planning,

national marine spatial planning and national land use planning. The sector planning shall be adjusted to match the three other types of planning, respectively (ibid, Clause 2). Regarding the relation of administrative units, urban and rural planning shall conform to provincial, regional and national planning (ibid, Clause 4). Provincial planning, in turn, shall conform to regional and national planning. Lastly, regional planning is oriented towards national planning (ibid, Clause 3). In case of inconsistencies, the lower level of planning is adjusted and implemented according to the higher level of planning (ibid).

5.5.3 Planning Process

In accordance with Art. 7 LoP, the planning process includes several phases:

- 1) Formulation of planning,
- 2) Appraisal of planning,
- 3) Decision on or approval of planning,
- 4) Communication of planning,
- 5) Implementation of planning.

The planning orientation is quite forward-looking. The planning period for the national planning system covers 10 years and has a perspective of 30-50 years, while regional and provincial planning has a perspective of 20-30 years (Art. 8, Clause 2). The decided or approved planning shall be supported by State policies. One of the main objectives of State planning policies is to protect the environment in accordance with the approved planning (Art. 10, Clause 1 and 2). Also the need to introduce policies on encouraging and enabling organizations and individuals to participate in planning and on the promotion of international cooperation in planning is especially highlighted (see Art 10, Clause 4 and 5 and Art. 11 LoP).

The LoP is quite innovative, insofar as it states that, in general, the public and organizations have the right to offer opinions on and supervise planning, and individuals have the right to offer opinions on planning, too (Art. 12, Clause 1). The organization that is responsible for planning shall enable the public and organizations to offer opinions on and supervise planning, and enable individuals to offer opinions on planning (ibid, Clause 3), within a prescribed time limit (ibid, Clause 2). Such opinions have to be considered, received, explained and published in accordance with legal regulations (ibid, Clause 4). This kind of stakeholder involvement will impact and potentially amend a lot of existing laws, e.g. the Mineral Law which only requires that the planning content has to be publicized *after* its approval (Art. 15, Clause 2, MinL). Consequently, the obstruction of the public, other organizations and individuals in offering opinions is rendered a prohibited act (Art. 13, Clause 4 LoP).

5.5.4 Regulations on Planning Formulation

The LoP provides regulations for organizing planning formulations (Art. 11 to 19 LoP) and for planning contents (Art. 20 to 28 LoP). The power to organize planning formulations is allocated as follows:

- The government shall organize the formulation of national comprehensive planning, national marine spatial planning and national land use planning (Art. 14, Clause 1),
- The prime minister shall organize the formulation of regional planning (ibid, Clause 2),
- The ministry and ministerial authorities shall organize the formulation of national sector planning (ibid, Clause 3),
- The People's Committee of provinces shall organize the formulation of provincial planning (ibid, Clause 4).

The planning tasks are prescribed in Article 15 LoP and include bases for planning formulation, requirements for contents and methods of planning formulation, costs and time for planning formulation and the responsibilities of relevant authorities for the organization of planning formulation. Article 16 of the Law prescribes the procedures of planning formulation in general (Clause 1), for national sector planning (Clause 2), for regional planning (Clause 3) and for provincial planning (Clause 4). The planning authorities shall select a planning consultancy based on the Law on Bidding (Art. 17, Clause 1), whereby this consultancy shall have legal status and satisfy specific qualification requirements (ibid, Clause 2).

Referring to the LEP's regulations, Article 18 LoP prescribes that the planning authority shall also provide a strategic environmental assessment report (Art. 18, Clause 1), which is prepared and appraised at the same time as the planning is formulated and appraised (ibid, Clause 2).

Besides delivering a SEA, the planning authority shall seek opinions on the planning. Such opinions must be considered, received, explained and reported to a competent authority before the planning is appraised, decided or approved. Additionally, the planning authority shall publicize such opinions, their receipt and an explanation of the opinions (Art. 19, Clause 4). National planning shall seek opinions from ministries, ministerial authorities, People's Committees at all levels of relevant local governments, the public, and other organizations and individuals related to planning, except for those related to national sector planning (Art. 19, Clause 1). At the lower level of regional and provincial planning, the responsible agency shall get opinions from the People's Committees of provinces of adjacent areas (ibid).

Art. 20 LoP regulates the general foundations for planning formulation, which are socio-economic development strategies and field and sector development strategies during the same development period. Furthermore, planning of the higher level and planning from the previous period have to be considered. Art. 21 LoP contains general requirements for the contents of all types of planning and thus also for the planning of the extraction of mineral resources. Planning content shall ensure the

fulfillment of requirements for planning and developing the entire national territory towards sustainable development in association with environmental protection, natural disaster preparedness and climate change resilience. It shall distribute, extract and use natural resources in a proper and effective manner and preserve historical-cultural relics, cultural heritages and natural heritages for present and future generations (Art. 21, Clause 1). Planning content shall also ensure uniformity between infrastructure, land allocation and environmental protection, and ecosystem services (ibid, Clause 2). Socio-economic factors, national defense and security, and environmental protection have to be balanced during planning formulation (ibid, Clause 4). Negative effects of socio-economic development and environment on the livelihood of the public, elderly people, disabled people, ethnic minorities, women and children shall be reduced. Planning shall also be combined with other policies to promote the development of disadvantaged and extremely disadvantaged areas and ensure the sustainable livelihood of people in those areas. Herewith, the social dimension of sustainable development is addressed. Further requirements are participation in the formulation of planning, the ensuring of scientism in planning and the uniformity and coherence of planning contents, Art 21, Clauses 7 to 9 LoP.

Art. 22 ff. LoP requires discussion of specific contents for the different types of planning. A list of national sector planning is specified in Appendix 1 of the LoP. Planning for the exploration, extraction, processing and use of types of minerals used as building materials is listed in Appendix 1 No 33 LoP. Art. 25 LoP, which regulates the contents of sector planning, prescribes the required content of national planning for natural resources (Clause 4) as follows:

- Analysis and assessment of natural conditions, investigation and survey of extraction and use of natural resources (lit. a),
- Assessment of effects of extraction and use of natural resources (lit. b),
- Analysis and assessment of socio-economic development policies and orientations related to the extraction and use of natural resources, national environmental protection and relevant planning (lit. c),
- Forecasts about science and technology advances and socio-economic development that
 affect the protection, extraction and use of natural resources during the planning period (lit.
 d),
- Viewpoints and objectives for extraction and use of natural resources in the service of socioeconomic development (lit. dd),
- Areas where the extraction and use of natural resources are prohibited, restricted or encouraged (lit. e),
- Orientation to environmental protection, natural disaster preparedness and climate change resilience (lit. g),

In addition, provincial planning has to deal with the extraction of minerals as it shall present, among others, "plans for environmental protection, extraction, use and protection of natural resources, biodiversity, natural disaster preparedness and climate change resilience within the province" (Art. 27 Clause 2, lit. n) LoP.

5.5.5 Effectiveness of the Law on Planning and Transition Clause

The Law on Planning took effect on 01 January 2019 (Art. 58, Clause 1). The Law's regulations on formulation (Section 5.5.2) and appraisal (Section 5.5.4) of national planning, regional planning and provincial planning already came into force on 01 March 2018.

The government shall review and request the National Assembly to amend the regulations on planning (Art. 58, Clause 3). The list of concerned laws and points, clauses and articles to be amended is presented in Appendix 3 of the LoP. The list also includes laws with regard to the planning of minerals and of environmental protection, which were introduced in the previous chapters of this study, such as the Law on Biodiversity (no. 5), the Law on Environmental Protection (no. 7), the Law on Land (no. 9), the Law on Minerals (no. 10), the Law on Water Resources (no. 11), the Law on Construction (no. 16) and the Law on Urban Planning (no. 17)

Pursuant to the LoP's provisions of Appendix III LoP, the National Assembly promulgated Law No. 35/2018/QH14 on 20 Nov 2018, which took effect on 01 Jan 2019 (cf. Art. 31), to provide amendments to some articles concerning the planning of 37 Laws (in the following: "Amendment Law 2018"). The amendments are related, i.a., to the following articles with relevance for the planning of sustainable mineral extraction:

- Article 5. Amendments to some articles of the Law on Water Resources
- Article 6. Amendments to some articles of the Law on Land
- Article 7. Amendments to some articles of the Law on Environmental Protection
- Article 8. Amendments to some articles of the Law on Minerals
- Article 10. Amendments to some articles of the Law on Biodiversity
- Article 28. Amendments to some articles of the Law on Construction
- Article 29. Amendments to some articles of the Law on Urban Planning

The detailed contents of the amendments cannot be explained in this study. However, the amendments to the Mineral Law are introduced in short. Art. 8 of the Amendment Law provides a new structure for mineral planning. Referring to this, a new definition of mineral planning is introduced in Art. 2 Clause 8 MinL. Thereafter, *mineral planning* includes four types of planning which are classified as national sector planning (cf. Art. 11, Clause 1 and Art. 13, Clause 1, MinL new version):

- Planning for the geological baseline surveys of minerals,
- Planning for the exploration, extraction, processing and use of minerals,
- Planning for the exploration, extraction, processing and use of radioactive ores,
- Planning for the exploration, extraction, processing and use of minerals as building materials.

Art. 8 of the Amendment Law provides new regulations for these planning types. The basis for formulating the planning is prescribed by the LoP (Art. 11, Clause 2 and Art. 13, Clause 2, MinL new version). For planning of the geological baseline survey of minerals they shall include the results of the

implementation of the planning for the geological baseline survey of minerals in the previous period (a) and geological premises and mineral evidence related to newly discovered minerals (b). For the three other types of planning they shall include the mineral demand from various industries (a), the result of the geological baseline survey of minerals (b), scientific and technological advances in mineral exploration and extraction (c) and results of SEA as prescribed by the LEP (d). The formulation, appraisal, approval, publishing and implementation of the planning shall comply with the regulations of the LoP (Art. 11 Clause 3 and Art. 13 Clause 3 MinL new version). The following figure illustrates the new structure of Mineral Planning:

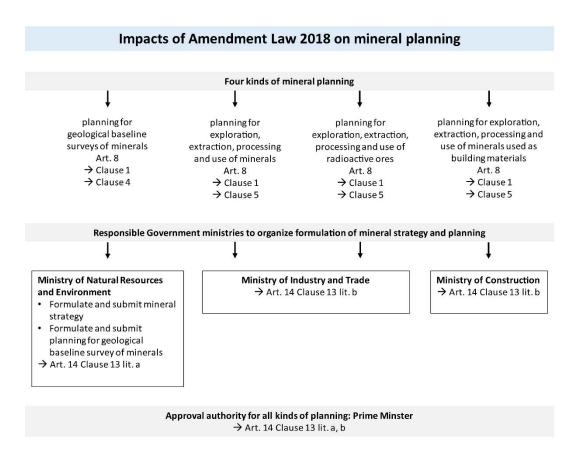


Figure 8: Impacts of Amendment Law 2018 on mineral planning (Vu, IOER)

6. Conclusions

The previous sections have given an overview of the legal framework of mining in Vietnam and the respective environmental requirements. The Mineral Law, the Law on Environmental Protection, the regulations on planning and a multitude of further laws and accompanying decrees, decisions and circulars regulate how mining licenses and mining rights are processed and managed in Vietnam.

In general, these regulations comply with the international management standards of "sustainable" or "responsible" mining as defined by several studies 98: the Mining Law adopted in 2010 provides a detailed framework on how licenses are issued, monitored and terminated, including institutional responsibilities and procedures⁹⁹. The requirements and procedures for granting mining licenses are linked with national policies and plans, especially with socio-economic development planning and sector planning. Procedures for the extension, termination or revocation of licenses and taxation measures are also included in the legal framework (cf. Art 34 ff., Art. 51 ff. Mineral Law).

Stipulations regarding sustainability and responsibility deal with preventing illegal mining and protecting as-yet unrecovered minerals (Art. 16-26 Mineral Law). Provisions on protecting the environment, regulating land use and water sources, and restricting discharge of wastewater from mines are further examples (cf. Art. 30 ff. MinL), including a variety of standards for permitted environmental emissions and technical mine design. Especially, they address negative environmental, economic and health/social impacts, aiming at reducing negative impacts on the environment and stipulating the restoration of environmental functions after mining.

Due to its interdependence with mining law, the Environmental Protection Law (2014) plays a major role, providing regulations on environmental strategies, environmental plans and environmental assessments applicable in the mining sector. Similar to the legal framework of the EU (cf. EIA Directive 2011/92/EU and SEA Directive 2001/42/EC) 100, mining organizations must formulate an EIA for individual projects and public authorities must conduct a SEA for mineral plans. On closer examination, however, the study also identified some deficits, e.g. regarding the applicability of the strategic environmental assessment and public participation in the context of the extraction of aggregates used as building materials (see 4.1.5).

In consideration of the socio-economic and spatial implications of mining, planning law is also relevant for environmentally sound and responsible mining. The aggregates mining sector (either for key industries like cement or for use as normal construction materials) is managed by different kinds of

⁹⁸ University of Leoben, Planning Policies and Permitting Procedures to Ensure the Sustainable Supply of Aggregates in Europe, 2010; Venugopal, Assessing Mineral Licensing in a Dezentralized Context, 2014, p. 2 ff.; Müller, Schiappacasse, Planning for the responsible extraction of natura aggregates, 2019, p.7, 13.

⁹⁹ Stipulating these requirements Venugopal, ibid, p. 3.

¹⁰⁰ See in general on the European environmental standards of mining Szczepanski, Mining in the EU. Regulation and the way forward, Library Briefing, Library of the European Parliament 19/12/2012; European Commission, Non-energy mineral extraction and Natura 2000. Guidance document, 2011.

planning. In the first place, mineral planning under the Mineral Law has to be mentioned, distinguishing between different types of natural resources. Plans for the use of minerals as building materials form a specific type of planning (see Art 13 Mineral Law). The spatial dimension of mining activities is expressed by specific areas related to mining activities (i.e. mineral activity areas, areas banned from mineral activities and national mineral reserves areas, Art. 25 ff. Mineral Law), which have to be mapped properly. From the perspective of environmental protection, especially banned areas are of high importance (see 3.5).

As far as the mining of aggregates used as building materials is concerned, further types of planning may have a guiding effect, such as socio-economic development planning, construction planning and land use planning ¹⁰¹. On the one hand, these plans may stimulate demand for building materials, for instance socio-economic development planning (see Law on Organizing the Government, 2001), construction planning under the Construction Law (2013) and urban planning under the Law on Urban Planning (2009). On the other hand, spatial plans may designate sites where aggregate extraction is permitted, possibly under certain conditions, and where it is in principle prohibited, e.g. land use plans under the Land Law (2013). However, mining activities and their environmental impacts are seldom *explicitly* addressed in the legal framework of spatial planning.

Recently, the legal framework of the Vietnamese planning system was newly defined and harmonized by the Planning Law (2017) and the respective Amendment Law concerning the planning of 37 laws (2018). It remains to be seen whether these laws and their qualitative planning standards will influence the development of mining activities from the perspective of environmental protection. The Planning Law requires, inter alia, strategic environmental assessments to be conducted and public participation in planning processes (Art. 18 and 19 LoP). Furthermore, the contents for planning on the use of natural resources are defined (cf. Art. 25 LoP). However, the regulations are quite abstract and consideration of their applicability for the mining of construction materials raises further questions. Potentially, forthcoming amendments of decrees and circulars could clarify the legal situation.

It can be concluded that the Vietnamese mining authorities can work on the basis of modern legislation considering environmental issues. An inquiry of the online collection of legal documents in Vietnam¹⁰² shows that there is a huge amount of regulations in this sector. The interconnections between these regulations are manifold and not always transparent in their relative weighting in the practical course of public administration. This is reflected by the ministerial circulars used to structure administrative processes: relatively extensive in terms of text length, these documents provide a high resolution of the formal and organizational structure attached to the procedures but the content of technical measures and management tasks of the mine operators remain vague.

¹⁰¹ See for detail Müller, Schiappacasse, Planning for the responsible extraction of natural aggregates, 2019.

¹⁰² www.thuvienphapluat.vn

In general, the legislation for environmental protection in Vietnamese mining activities appears to show the potential tendency of over-regulation. The feasibility of the environmental and mining regulations might be in question if the regulatory density continues to increase at the current speed. Bearing in mind the low government efficiency detected by the Sustainable Development Goals¹⁰³ (SDG) index¹⁰⁴, with government efficiency at 3.5 (on a range from 1-7)¹⁰⁵, the public administration might be exposed to the risk of overloading. Hence, the environmental protection laws may face the threat of non-execution. This would question the efficiency and effectiveness of the State apparatus to preserve a clean environment and to manage natural resources in a sustainable way as prescribed by the amended Constitution of 2013.

After some years of fieldwork in Vietnam we have to highlight the deep gap between the immense density of regulations accompanied by multiple amendments on the one hand and their fragmented implementation on the other hand. Also significant deficits in the environmental technological performance of the mining companies and deficits in the personnel capacities of the authorities of the provinces have to be considered. To make matters worse, environmental monitoring systems are not implemented sufficiently. Especially in the Luong Son District, the mining of aggregates for use as building materials causes a range of land use conflicts and impairments to health 106. There is a lack of consistent and comprehensive restoration measures for former mining sites, although the Mineral Law and Environmental Law provide obligations in this direction.

In short, it remains to be stated that Vietnamese legislation generally stipulates far-reaching environmental requirements in the mining sector. Deficits exist primarily in the field of the practical implementation of the environmental obligations at the provincial and local levels. Therefore, improvements should be reached by the more stringent implementation of the legal requirements. In general, the reduction of complexities and dynamics of the legislative and planning framework would be a viable step to consolidate the legislative framework for environmentally sound mining in Vietnam.

¹⁰³ See United Nations, Resolution No. A/RES/70/1, adopted on 21 Oct 2015.

¹⁰⁴ The progress of a country with regard to pursuing the UN's Sustainable Development Goals (SDGs) since 2016 is documented by the Bertelsmann Stiftung and the Sustainable Development Solutions Network joint report on the lobal SDG index and dashboards (Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G. (2018): SDG Index and Dashboards Report 2018. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). Vietnam's country SDG dashboard is displayed on ibid, p.456-457. Its purpose is to summarize countries' current performance and trends on the 17 SDGs (Sachs et al 2018, p. 11).

¹⁰⁵ Government Efficiency is an indicator not listed in the UNSTATS database, and indicates a "survey-based assessment of government efficiency, on a scale from 1 (worst) to 7 (best). The indicator reports respondents' qualitative assessment of government efficiency, an aggregate measure based on respondents' answers to several questions on the wastefulness of government spending: i.e. the burden of government regulation, the efficiency of the legal framework in settling disputes and challenging regulations, and the transparency of government policymaking." (Sachs et al. 2018, p. 53).

¹⁰⁶ Thinh, Ebrahimi-Salari, Monitoring of mineral resource extraction and analyzing its impacts on the environment and land cover/land use in Hoa Binh Province, 2019.

7 Literature

National legal documents of Vietnam

	Date of	Abbreviation in
Full English title	promulgation	present study
The Amendment to the Constitution of the Socialist Republic of Vietnam, dated 28 Nov 2013	28 Nov 2013	CoVN 2013 or CoVN
Legislation by the National Assembly		
The National Assembly's Law No. 29-L/CTN, dated 27 Dec 1993, on Environmental Protection	27 Dec 1996	LEP 1996
The National Assembly's Law No. 52/2005/QH11, dated 29 Nov 2005, on Environmental Protection	29 Nov 2005	LEP 2005
The National Assembly's Law No. 05/2007/QH12, dated 21 Nov 2007, on the Quality of Products and Goods	21 Nov 2007	LQPG 2007 or LQPG
The National Assembly's Law No. 45/2009/QH12, dated 25 Nov 2009, on Severance Tax	25 Nov 2009	LST 2009 or LST
The National Assembly's Law No. 60/2010/QH12, dated 17 Nov 2010, on Minerals	17 Nov 2010	MinL 2010 or MinL
The National Assembly's Law No. 17/2012/QH13, dated 21 Jun 2012, on Water Resources	21 Jun 2012	LWR 2012 or LWR
The National Assembly's Law No. 55/2014/QH13, dated 13 Jun 2014, on Environmental Protection	13 Jun 2014	LEP 2014 or LEP
The National Assembly's Law No. 50/2014/QH12, dated 18 Jun 2014, on Construction	18 Jun 2014	LoC 2014 or LoC
The National Assembly's Law No. 57/2014/QH13, dated 20 Nov 2014, on Organization of the National Assembly	20 Nov 2014	LONA 2014 or LONA
The National Assembly's Law No. 75/2015/QH13, dated 9 Jun 2015, on the Fatherland Front of Vietnam	09 Jun 2015	LFF 2015 or LFF
The National Assembly's Law No. 76/2015/QH13, dated 19 Jun 2015, on Organization of the [Central] Government	19 Jun 2015	LOG 2015 or LOG
The National Assembly's Law No. 77/2015/QH13, dated 19 Jun 2015, on Organization of the Local Government	19 Jun 2015	LLG 2015 or LLG
The National Assembly's Law No. 80/2015/QH13, dated 22 Jun 2015, on Promulgation of Legislative Documents	22 Jun 2015	LPLD 2015 or LPLD
The National Assembly's Law No. 97/2015/QH13, dated 25 Nov 2015, on Fees and Charges	25 Nov 2015	LFC 2015 or LFC
The National Assembly's Resolution No. 142/2016/QH13, dated 12 Apr 2016, on the 5-year Socio-Economic Development Plan from 2016-2020	12 Apr 2016	Resolution 142
Decrees and Resolutions by Central Government	•	
The Government's Decree No. 92/2006/ND-CP, dated 7 Sep 2006, on the formulation, approval and management of the socioeconomic development master plan.	7 Sep 2006	Decree 92

Full English title	Date of promulgation	Abbreviation in present study
The Government's Decree No. 04/2008/ND-CP, dated 11 Jan 2008, to amend, supplement some Articles of Decree No. 92/2006/ND-CP dated 7 Sep 2006 by the Government on the formulation, approval and management of the socio-economic development master plan	11 Jan 2008	Decree 04
The Government's Decree No. 39/2009/ND-CP, dated 23 Apr 2009, on industrial explosive materials	23 Apr 2009	Decree 39
The Government's Decree No. 37/2010/ND-CP, dated 7 Apr 2010, on the formulation, evaluation and approval of urban planning	7 Apr 2010	Decree 37
The Government's Decree 50/2010/ND-CP, dated 14 May 2010, detailing and guiding a number of the Law on Severance Tax	14 May 2010	Decree 50
The Government's Decree No. 22/2012/ND-CP, dated 26 Mar 2012, on auction of the mineral mining right	26 Mar 2012	Decree 22
The Government's Decree No. 203/2013/ND-CP, dated 28 Nov 2013, defining the calculation method and charge for granting the mineral right	28 Nov 2013	Decree 203
The Government's Decree No. 43/2014/ND-CP, dated 15 May 2014, detailing a number of articles of Land Law	15 May 2014	Decree 43
The Government's Decree No. 18/2015/ND-CP, dated 14 Feb 2015, on regulations for environmental protection planning, strategic environmental assessment, environmental impact assessment and environmental strategy		Decree 18
The Government's Decree 19/2015/ND-CP, dated 14 Feb 2015, detailing the implementation of a number of articles of the Law on Environmental Protection	14 Feb 2015	Decree 19
The Government's Decree 44/2015/ND-CP, dated 6 May 2015, detailing a number of articles on construction planning	6 May 2015	Decree 44
The Government's Decree No. 59/2015/ND-CP, dated 18 Jun 2015, on construction investment project management		Decree 59
The Government's Resolution No. 63/NQ-CP, dated 22 Jul 2016, to promulgate the action program of the government to implement resolution of the National Assembly on the 5-year socio-economic development plan 2016-2020		Resolution 63
Government's Decree 120/2016/ND-CP, dated 23 Aug 2016, specifying and guiding the implementation of a number of articles of the Law on Fees and Charges.		Decree 120
The Government's Decree No. 138/2016/ND-CP, dated 1 Oct 2016, promulgating the working regulation of the government	1 Oct 2016	Decree 138
The Government's Decree No. 154/2016/ND-CP, dated 16 Nov 2016, on environmental protection fee on wastewater	16 Nov 2016	Decree 154
The Government's Decree No. 158/2016/ND-CP, dated 29 Nov 2016, on guidelines for the Law on Minerals	29 Nov 2016	Decree 158
The Government Office's Decision No. 1215/QD-VPCP, dated 15 Dec 2016, defining the function, task, power and organizational structure of the Government Office's departments and units (Decision 1215)	158 Dec 2016	Decision 1215

Full English title	Date of promulgation	Abbreviation in present study
The Government's Decree No. 164/2016/ND-CP, dated 24 Dec 2016, on environmental protection fees on mineral extraction	24 Dec 2016	Decree 164
The Government's Decree No. 36/2017/ND-CP, dated 4 Apr 2017, defining the functions, tasks, powers and organizational structure of the Ministry of Natural Resources and Environment	04 Apr 2017	Decree 36
The Government's Decree No. 81/2017/ND-CP, dated 17 Jul 2017, on defining the functions, tasks, powers and organizational structure of the Ministry of Construction	17 Jul 2017	Decree 81
The Government's Decree No. 86/2017/ND-CP, dated 25 Jul 2017, to regulate the functions, task, power and organizational structure of the Ministry of Planning and Investment	25 Jul 2017	Decree 86
The Government's Decree No. 98/2017/ND-CP, dated 18 Aug 2017, on defining the functions, tasks, powers and organizational structure of Ministry of Industry and Trade	18 Aug 2017	Decree 98
The Government's Resolution No. 96/NQ-CP, dated 26 Jul 2018, to adjust land use planning until the year 2020 and the land use plan for the final period (2016-2020) for Hoa Binh Province	26 Jul 2018	Resolution 96
Decisions by the Prime Minister		
The Prime Minister's Decision No. 256/QD-TTg, dated 2 Dec 2003, to approve the national strategy on environmental protection until 2010, and orientations towards 2020	2 Dec 2003	Decision 256
The Prime Minister's Decision No. 2427/QD-TTg, dated 22 Dec 2011, approving mineral resources strategy to 2020, with a vision toward 2030	22 Dec 2011	Decision 2427
The Prime Minister's Decision No. 1216/QD-TTg, dated 5 Sep 2012, to approve the national strategy on environmental protection until 2020, with a vision to 2030	5 Sep 2012	Decision 1216
The Prime Minister's Decision No. 917/QD-TTg, dated 11 Jun 2013, to approve the general socio-economic development planning of Hoa Binh province until the year 2020	11 Jun 2013	Decision 917
[The Prime Minister's Decision No. 980/QD-TTg, dated 21 Jun 2013, to approve the regional construction planning for the Northern Midland and Mountainous Region]	21 Jun 2013	Decision 980
Quyết định Thủ tướng số 980/QĐ-TTg ban hành ngày 21 tháng 6 năm 2013, về Phê duyệt Quy hoạch xây dựng vùng trung du và miền núi Bắc Bộ đến năm 2030.		
[The Prime Minister's Decision No. 1064/QD-TTg, dated 8 Jul 2013, to approve the general planning on socio-economic development of the Northern Midland and Mountainous Region until 2020]	8 Jul 2013	Decision 1064
Quyết định Thủ Tướng Chính Phủ số 1064/QD-TTg ban hành ngày 8 tháng 7 năm 2013 về phê duyệt Quy hoạch tổng thể phát triển kinh tế - xã hội vùng Trung du và Miền núi phía Bắc đến năm 2020		
The Prime Minister's Decision No. 1388/QD-TTg, dated 13 Aug 2013, approving the master plan on geological surveillance to the year 2020, with a perspective until 2030	13 Aug 2013	Decision 1388

Full English title	Date of promulgation	Abbreviation in present study
The Prime Minister's Decision No. 2623/QD-TTg, dated 31 Dec 2013, to approve the project on "Development of the urban centers of Vietnam to adapt to climate change in the period 2013-2020" (Decision 2623)	31 Dec 2013	Decision 2623
The Prime Minister's Decision No. 166/QD-TTg, dated 21 Jan 2014, to issue the program for implementation of the national environmental protection strategy by 2020, with a vision to 2030	21 Jan 2014	Decision 166
The Prime Minister's Decision 645/QD-TTg, dated 6 May 2014, on approving the national mineral reserve areas	6 May 2014	Decision 645
The Prime Minister's Decision No. 768/QD-TTg, dated 6 May 2016, to approve the adjustment of the construction planning for the Hanoi Capital Region until the year 2030 and a vision until the year 2050	6 May 2016	Decision 768
Circulars by Central Ministries		
The Ministry of Construction's Circular No. 01/2011/TT-BXD, dated 27 Jan 2011, to guide the strategic environmental assessment in construction and urban plans	27 Jan 2011	Circular 01
The Ministry of Natural Resources and Environment's Circular No. 23/2012/TT-BTNMT dated 28 Dec 2012, promulgating the "National technical regulations on the elaboration of mineral related maps of 1:50,000 scale on the mainland" with the technical code QCOVN 49: 2012/BTNMT	28 Dec 2012	Circular 23
The Ministry of Planning and Investment's Circular No. 05/2013/TT-BKHDT, dated 31 Oct 2013, to provide guidance on development, assessment, approval, revision and communication of socioeconomic development master plans and industry, sector and key product development planning	31 Oct 2013	Circular 05
The Ministry of Natural Resources and Environment's Circular No. 38/2014/TT-BTNMT, dated 3 Jul 2014, promulgating the supervision procedures on the implementation of projects on geological baseline studies invested by organizations and individuals	03 Jul 2014	Circular 38
The Ministry of Natural Resources and Environment's and the Ministry of Finance's Joint-Circular No. 54/2014/TTLT-BTNMT-BTC, dated 9 Sep 2014, detailing a number of articles defined in governmental Decree No. 22/2012/ND-CP, dated 26 Mar 2012, regulating the auction of mining rights	09 Sep 2014	Joint-Circular 54
The Ministry of Natural Resources and Environment's Circular 66/2014/TT-BTNMT, dated 31 Dec 2014, providing regulations on the procedures of appraising and approving the projects and reports on the results of geological baseline studies	31 Dec 2014	Circular 66
The MoNRE's Circular No. 27/2015/TT-BTNMT, dated 29 May 2015 on strategic environmental assessment, environmental impact assessment and environmental protection plans	29 May 2015	Circular 27
The Ministry of Natural Resources and Environment's Circular 38/2015/TT-BTNMT, dated 30 Jun 2015, on environmental remediation and restoration in mineral mining activities	30 Jun 2015	Circular 38

Full English title	Date of promulgation	Abbreviation in present study
The Ministry of Finance's Circular No. 152/2015/TT-BTC, dated 2 Oct 2015 on guidance on severance tax	02 Oct 2015	Circular 152
The Ministry of Natural Resources and Environment's Circular No. 51/2015/TT-BTNMT, dated 26 Nov 2015, guiding a number of contents of mining-specific inspection	26 Nov 2015	Circular 51
The Ministry of Construction's Circular No. 12/2016/TT-BXD, dated 29 Jun 2016, on proposals and design of regional, urban and functional zone construction planning	29 Jun 2016	Circular 12
The Ministry of Finance's Circular No. 148/2016/TT-BTC, dated 14 Oct 2016, providing for the fees for processing of applications for the license to use industrial explosives and the collection, transfer and management thereof.	14 Oct 2016	Circular 148
The Ministry of Finance's Circular No. 190/2016/TT-BTC, dated 8 Nov 2016, on regulations for collection, remittance, management and use of fees for the exploitation and use of geological and mineral resources	8 Nov 2016	Circular 190
The Ministry of Finance's Circular No. 191/2016/TT-BTC, dated 8 Nov 2016, to provide for the fees for assessment of mineral reserves, the fees for processing applications for mineral exploration/mining license, and the collection, transfer, management and use thereof	8 Nov 2016	Circular 191
The Ministry of Industry and Trade's Circular No. 209/2016/TT-BCT, dated 10 Nov 2016, stipulating the rates, collection mode, submission, management and use of fees for evaluation of construction investment projects, and of fees for evaluation of the basic design	10 Nov 2016	Circular 209
The Ministry of Industry and Trade's Circular No. 210/2016/TT-BCT, dated 10 Nov 2016, stipulating the rates, collection mode, submission, management and use of fees for evaluation of technical designs, and of fees for appraisal of construction cost estimates	10 Nov 2016	Circular 210
The Ministry of Industry and Trade's Circular No. 26/2016/TT-BTC, dated 30 Nov 2016, prescribing the formulation, appraisal and approval of mineral mine construction investment projects and construction designs and cost estimates	30 Nov 2016	Circular 26
The Ministry of Natural Resources and Environment's Circular No. 44/2016/TT-BTNMT, dated 26 Dec 2016, on supervision of mineral exploration projects	26 Dec 2016	Circular 44
The MoNRE's Circular No. 45/2016/TT-BTNMT dated 26 Dec 2016, providing regulations on mineral exploration and mine closure projects, and templates of reports on mineral activities, documents required in application for mineral operation license and application for approval for mineral reserves, and mine closure procedures	26 Dec 2016	Circular 45
The Ministry of Finance's Circular No. 08/2017/TT-BTC, dated 24 Jan 2017, providing guidance on the management and use of environmental remediation deposits paid by mining organizations	24 Jan 2017	Circular 08
The Ministry of Natural Resources and Environment's Circular No. 25/2017/TT-BNTMT, dated 6 Sep 2017, regulating the operations of the appraising council on project proposals for mine closure	6 Sep 2017	Circular 25

Full English title	Date of promulgation	Abbreviation in present study
The Ministry of Natural Resources and Environment's Circular No. 61/2017/TT-BTNMT, dated 22 Dec 2017, prescribing process and method for determination and sample statistical charts of actual mining output	22 Dec 2017	Circular 61
The Ministry of Industry and Trade's Circular No. 13/2018/TT-BCT, dated 15 Jun 2018, on management and use of industrial explosives and precursors used in explosives manufacturing	15 Jun 2018	Circular 13
The Ministry of Finance's Circular No. 56/2018/TT-BTC, dated 25 Jun 2018, prescribing rate of collection, regime for collection, payment, management and use of fee for appraisal of the environmental impact assessment report by the central regulatory body	25 Jun 2018	Circular 56
Decision by the Ministry of Construction		
The Ministry of Construction's Decision No. 976/QD-BXD, dated 9 Oct 2013 defining the functions, tasks, powers and organizational structure of the Department of Building Materials	09 Oct 2013	Decision 976
Resolutions, Decisions and Plans by the Provincial Government of H	Hoa Binh	
[The People's Council of Hoa Binh Province's Resolution No. 144/2010/NQ-HDND, dated 21 Jul 2010, on the 5-year socio-economic development plan 2011-2015 promulgated by Hoa Binh Province]	21 Jul 2010	HB-Resolution 144
Nghị quyết 144/2010/NQ-HĐND ban hành ngày 21 tháng 7 năm 2010 về kế hoạch phát triển kinh tế xã hội 5 năm 2011-2015 do tỉnh Hòa Bình ban hành		
[The People's Committee of Hoa Binh Province's Decision No. 2599/QD-UBND, dated 29 Dec 2011, to promulgate the taxable price schedule for severance tax]	29 Dec 2011	HB-Resolution 2599
Quyết định Ủy ban Nhân dân tỉnh Hòa Bình số 2599/QĐ-UBND, ban hành ngày 29 tháng 12 năm 2011, về việc ban hành biểu giá tính thuế tài nguyên		
[The People's Committee of Hoa Binh Province's Decision No. 286/QD-UBND, dated 20 Mar 2012, on approval of the development plan of construction materials in Hoa Binh province until 2020]	20 Mar 2012	HB-Decision 286
The People's Council of Hoa Binh Province's Resolution No. 35/NQ-HDND, dated 10 Jul 2012, on the regional construction planning for Hoa Binh Province until the year 2020	10 Jul 2012	HB-Resolution 35
[The People's Committee of Hoa Binh Province's Decision No. 1314/QD-UBND, dated 25 Sep 2012, to approve the project of regional construction planning for Hoa Binh Province until the year 2020]	25 Sep 2012	HB-Decision 1314
Quyết định Ủy ban Nhân dân tỉnh Hòa Bình số 1314/QĐ-UBND ban hành ngày 25 tháng 9 năm 2012, về Phê duyệt đồ án Quy hoạch xây dựng vùng tỉnh Hòa Bình đến năm 2020		

Full English title	Date of promulgation	Abbreviation in present study
[The People's Council of Hoa Binh Province's Resolution No. 76/2013/NQ-HDND, dated 11 Dec 2013, to pass the plan for the exploration, exploitation and utilization of three types of construction materials: construction materials, brick-making materials, construction materials in Hoa Binh provincial households: stone building materials, period 2014 – 2019, with perspective towards 2024]	11 Dec 2013	HB-Resolution 76
Nghị Quyết Hội Đồng Nhân Dân Hòa Bình số 76/2013/NQ-HĐND ban hành ngày 11 tháng 12 năm 2013 về việc thông qua Quy hoạch thăm dò, khai thác và sử dụng ba loại khoáng sản làm vật liệu xây dựng thông thường: Đá làm vật liệu xây dựng, sét làm gạch ngói, cát làm vật liệu xây dựng trên địa bàn tỉnh Hòa Bình, giai đoạn 2014-2019, tầm nhìn đến năm 2024		
[The People's Committee of Hoa Binh Province's Decision No. 640/QD-UBND, dated 22 May 2014, on adjustment of the taxable price schedule for severance tax]	22 May 2014	HB-Decision 640
Quyết định Ủy ban Nhân dân tỉnh Hòa Bình số 640/QĐ-UBND, ban hành ngày 22 tháng 5 năm 2014, về việc điều chỉnh giá tính thuế tài nguyên		
[The Provincial People's Council of Hoa Binh's Resolution No. 96/2014/NQ-HDND, dated 16 Jul 2014, providing the detailed list of fees and charges; fee levels and ratio, payment of charges and fees within the competence of decision-making of the provincial People's Council]	16 Jul 2014	HB-Resolution 96
Hội đồng Nhân dân tỉnh Hòa Bình ban hành Nghị Quyết số 96/2014/NQ-HĐND ngày 16 tháng 7 năm 2014 về việc quy định danh mục chi tiết và mức thu các khoản phí, lệ phí thuộc thẩm quyền quyết định của Hội đồng nhân dân tỉnh		
[The People's Council of Hoa Binh province's Resolution No. 121/2015/NQ-HDND, dated 3 Dec 2015, on the 5-year socio-economic development plan from 2016-2020]	3 Dec 2015	HB-Resolution 121
Hội đồng Nhân dân tỉnh Hòa Bình ban hành Nghị Quyết số 121/2015/NQ-HĐND, ngày 03 tháng 12 năm 2015 về Kế hoạch Phát triển Kinh tế - Xã hội 5 năm 2016-2020		
[The People's Committee of Hoa Binh province's Decision No. 104/QD-UBND dated 19 Jan 2016 to promulgate the plan to implement the national strategy on environmental protection until 2020, and a perspective until 2030 within Hoa Binh province]	19 Jan 2016	HB-Decision 104a
Quyết định ban hành Kế hoạch triển khai thực hiện chiến lược bảo vệ môi trường quốc gia đến năm 2020, tầm nhìn đến năm 2030 trên địa bàn tỉnh Hòa Bình		
The People's Committee of Hoa Binh Province's Decision's No. 2431/QD-UBND, dated 4 Dec 2017, to approve the program on urban development for Hoa Binh Province, in the period 2016-2020, and orientations toward the year 2030	4 Dec 2017	HB-Decision 2431
The People's Committee of Hoa Binh Province's Plan No. 55/KH-UBND, dated 19 Apr 2018, on implementation of the program on urban development for Hoa Binh Province to achieve an urbanization rate of 25% by 2020 (Plan 55)	19 Apr 2018	HB-Plan 55

Other literature

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment.

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment.

European Commission (2011): Non-energy mineral extraction and Natura 2000. Guidance document.

Minh, Luu Duc (2016): Spatial Planning and construction aggregates materials exploitation issues in Vietnam - Challenges in integrating towards environmental protection, in: MAREX – Management of Mineral Resource Extraction in Hoa Binh Province – A Contribution to Sustainable Development in Vietnam. Conference Documentation, 27.06.-01.07.2016, ed. by Müller et al., Dresden, Germany.

Minh, Luu Duc et al.(2017): The Integration of Spatial Planning and Environmental Protection Planning for Construction Material Ming Areas in Luong Son District, Hoa Binh Provinve, Proceedings of the International Conference on Environment and Sustainable Development in Mineral Resource Extraction, Hanoi, 29-30 October 2017, p.178 ff.

Müller, Bernhard, Schiappacasse, Paulina (2019): Planning for responsible extraction of natural aggregates — The case of Hoa Binh Province/Hanoi Metropolitan Area, Dresden 2019 (MAREX Publication Series, Issue 7).

Sachs, J.; Schmidt-Traub, G.; Kroll, C.; Lafortune, G.; Fuller, G. (2018): SDG Index and Dashboards Report 2018. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). Vietnam's country SDG dashboard is displayed on ibid, p.456-457.

Szczepanski, Marcin (2012): Mining in the EU. Regulation and the way forward, Library Briefing, Library of the European Parliament 19/12/2012.

http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2012/120376/LDM_BRI(2012)120376_REV1_EN.pdf (Accessed in October 2018).

Taitamtinh: Sơ đồ Tổ chức Nhà nước Cộng hòa xã hội chủ nghĩa Việt Nam năm 2015 (State structure of the Socialist Republic of Vietnam in 2015).

https://commons.wikimedia.org/wiki/Image:T%E1%BB%95_ch%E1%BB%A9c_Nh%C3%A0_n%C6%B0 %E1%BB%9Bc_C%E1%BB%99ng_h%C3%B2a_X%C3%A3_h%E1%BB%99i_Ch%E1%BB%A7_ngh%C4%A 9a_Vi%E1%BB%87t_Nam_2015.png?uselang=vi; CC BY-SA https://creativecommons.org/licenses/by-sa/4.0/deed.vi

Thinh, Nguyen Xuan, Ebrahimi-Salari, Haniyeh (2019): Monitoring of mineral resource extraction and analyzing its impacts on the environment and land cover/land use in Hoa Binh Province, 2019 (MAREX Publication Series, Issue 2).

United Nations (2015): Resolution No. A/RES/70/1, adopted on 21 Oct 2015, titled Transforming our World: The 2030 Agenda for Sustainable Development (SDG Resolution).

http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcomp act/A_RES_70_1_E.pdf (Accessed in October 2018).

University of Leoben (2010):Planning Policies and Permitting Procedures to Ensure the Sustainable Supply of Aggregates in Europe. Final Report. Commissioned by UEPG (Union Européenne des Producteurs de Granulats).

Venugopal, Varsha (2014): Assessing Mineral Licensing in a Decentralized Context: The Case of Indonesia. Natural Governace Institute.

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