Laws of environmental protection in Vietnam - Situation and solutions

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Abstract. Research the current situation of Vietnam's environment. Researching the real situation of the law on environmental protection: the achievements of the law on environmental protection; Current issues raised in the regulation of environmental protection legislation. Proposing and proposing major solutions to perfect the environmental protection legislation in the coming time: perfecting the environmental protection legislation; complete the national standards and technical regulations on environment; complete the regulations on environmental impact assessment; complete the regulations on waste management, especially those in urban and industrial areas; complete the regulations on environmental protection of soil, water and air; issue documents specifying the process of publication and democratization of environmental protection activities.

1. Introduction
Over the past few decades, the global environment and Vietnam have tended to change complexly. Air quality, water resources, resources, ecosystems ... many places are at alarming levels. Environmental pollution and pressure on nature are happening daily and in many countries, regions and the entire earth. Recognizing that, in recent years, especially in recent years, Vietnam has been very interested in implementing various measures to protect the environment. One of the important tools in environmental protection is the legal system of environmental protection [1]. The orientation of developing and finalizing the environmental law is considered as one of the key tasks in order to meet the requirements of sustainable economic development and well implementing Vietnam's international commitments.

Within the scope of the article, the author analyses the current situation of Vietnam's environment through the data system, and focuses on the solution to build the legal system on environmental protection: the reality of the law on environmental protection in Vietnam and propose solutions to complete the legal system of environmental protection in the future.

2. The current situation of Vietnam environment
In recent years, with the trend of innovation and integration, Vietnam has created new impetus for the development process, overcoming the impact of the global recession and maintaining the annual economic growth rate with the average of 5.7% per year [2-4]. However, our country is still facing many challenges, including environmental pollution (figure 1).
Vietnam currently has 283 industrial parks with more than 550,000m$^3$ of wastewater per day and night; 615 industrial clusters but only over 5% have centralized wastewater treatment systems. More than 500,000 production facilities including many types of environmental pollution production and outdated production technologies. Over 5,000 businesses exploit minerals and construction materials; more than 4,500 villages. More than 13,500 medical facilities generate more than 47 tons of hazardous waste and 125,000 cubic meters of medical waste daily. Vietnam currently has 787 urban areas with 3 million m$^3$ of wastewater per day but most have not been treated and are circulating nearly 43 million motorcycles and over 2 million cars [5].

Every year, Vietnam uses more than 100,000 tons of plant protection chemicals; generating more than 23 million tons of domestic waste, more than 7 million tons of industrial solid waste, more than 630,000 tons of hazardous waste while the treatment of waste and wastewater is very limited. Currently, there are 458 landfills, of which 337 are unsanitary landfills; more than 100 small-use domestic incinerators that are at risk of generating dioxins and furans [6-7].

The FDI sector currently plays a major role in Vietnam's exports, with about 70% of exports and 59% of imports. However, FDI tends to shift capital flows into industries that consume energy and resources, and are not environmentally friendly, such as metallurgy, ship repair, textiles, footwear, and mining. Mineral collection not associated with deep processing, pulp production, chemical production, and agricultural product processing. The goal of attracting high technology, source technology and technology transfer has not been achieved yet. Some FDI projects violate the law causing environmental pollution such as Vedan, Miwon, Formosa.

In urban areas, the main environmental pollution is dust pollution due to traffic activities, air and surface water pollution in some industrialized areas. In the river basins, the section running through urban areas, especially in the concentrated areas of industrial zones, there has been pollution of nutrients, organic substances and microorganisms such as the Nhue River, which flows through Hanoi. Saigon River flows through Binh Duong, Ho Chi Minh City, Dong Nai River flows through Ho Chi Minh City. Bien Hoa and Binh Duong province etc.

In rural areas, the pollution mainly takes place in craft villages and industrial spots interspersed in residential areas, production establishments, concentrated livestock farms, cultivation and exploitation activities. Intensive farming activities with the use of chemical fertilizers and pesticides give rise and increase in CH$_4$, H$_2$S, NH$_3$ gas cause environmental pollution, especially in areas of intensive farming using fertilizers and plant protection drugs not in accordance with technical processes such as: Dong Anh (Hanoi), Hiep Hoa (Bac Giang), Yen Dinh (Thanh Hoa), Tay Nguyen (Duc Trong, Da Lat city). In
addition, land degradation is widespread in many rural areas of Vietnam, such as leaching, erosion, desertification, salinization, drought, flooding, and flash floods soil erosion (table 1).

Table 1. The table of solid waste volumes by economic sector 2017 [8].

| Local                          | Amount of generated solid waste (tons / day) |   |
|-------------------------------|---------------------------------------------|---|
|                               | Urban activities | Industry | Hazardous industry | Health hazard |
| Red river delta               | 9.346,13         | 7.249,12 | 1.366,68           | 18,60         |
| Northern Midlands and Mountains | 1.077,75         | 1.314,57 | 188,63             | 11,96         |
| North Central and Central Coast | 4.146,37         | 5.447,12 | 1.137,17           | 15,00         |
| Tay Nguyen                    | 1.268,66         | 459,51   | 65,24              | 2,48          |
| South East                    | 8.981,35         | 7.567,46 | 1.583,15           | 14,70         |
| Mekong Delta                  | 3.625,82         | 2.163,12 | 352,03             | 7,49          |
| Country                       | 28.446,08        | 24.200,90| 4.692,90           | 70,23         |

In mining areas, mining activities have been causing many adverse impacts on the surrounding environment such as dumping soil and rock, discharging waste dust, slag ores into the water or generating water disperse into the environment; altering forest ecosystems, degradation and pollution of agricultural land. In addition, many organizations and individuals have not yet performed or have not performed well the obligation to improve and restore the environment after mine closure, reducing land use efficiency, especially in areas where many mines are concentrated minerals like Tuyen Quang, Thai Nguyen and Quang Ninh.

The quality, effectiveness and efficiency of state management tools and measures on the environment are still inadequate, fail to meet requirements and investment in environmental protection is still very limited.

3. Law of environmental protection in Vietnam

There are many views upon the definition of environmental law, however, the views agree that environmental law is an independent law. Environmental law (as an independent law branch) is a collection of legal provisions governing social relations arising between entities during the process of exploitation, use or impact on one or more environmental components.

This can be said that one of the achievements of the system of legal documents on environmental protection is the development, recognition and identification of the system of basic principles in environmental protection policies and laws. The basic principles and policies on environmental protection have been asserted more and more consistently and clearly. These basic principles and policies stem from the policy of socio-economic development under the model of sustainable development (both ensuring economic growth, environmental protection and stability, social equity). Vietnam’s national environmental protection strategy also asserts that the principle of “environmental protection must be based on the enhancement of state, institutional and legal management coupled with raising awareness and a sense of responsibility.” of all people and the whole society about environmental protection.

Vietnam has built a relatively comprehensive system of legal documents. Reviewing the provisions on environmental protection we can see that the basic social relations arising in environmental protection activities have been fully and comprehensively regulated. The social relations arising in the field of environmental protection can be referred to as the following:

- Relationships between state management agencies in environmental protection.
• The relations between individuals and organizations on one side and the State arising in the state management of environment.
• The relationships between individuals and organizations arise.

In addition to the provisions of law providing for measures to protect the environment, Vietnam has also developed a system of relatively comprehensive documents governing the exploitation and use of important natural resources and minerals. This is also a point showing the comprehensiveness of the legal system on environmental protection. In addition, many environmental issues that are considered relatively new to the socio-economic development in Vietnam also have written adjustment such as: biosecurity for genetically modified organisms; products and goods derived from genetically modified organisms etc.

The fifth achievement in the system of legal documents on environmental protection in recent years is that Vietnam has built a system of sanctions to handle environmental law violations relatively fully. There are three basic types of sanctions that laws often use to regulate the behaviour of organizations and individuals in society: civil sanctions, administrative sanctions, criminal sanctions. So far, it can be said that the law on environmental protection has all three types of sanctions.

Environmental standards and regulations are an important part of the legal system of environmental protection, which are the rules, standards and limits that managers rely on to manage the environment. It is a key tool in environmental management.

Currently, most of the environmental standards have been converted into National Technical Regulations on environment. However, some standards have proved to be inconsistent with the reality and the level of socio-economic development of the country, which is still too high compared to other countries in the region. On the other hand, there is no distinction in applying environmental standards between investment projects and operating facilities; Although promulgated relatively many, but environmental standards and regulations are not widely disseminated to the people; Some activities need to comply with environmental regulations but not specified or activities need to be based on environmental standards but there are no regulations such as the activities of preparing and evaluating evaluation reports, environmental impact etc.

The situation of increasing pollution in urban areas, industrial parks, many craft villages and some rural areas today shows that the environmental protection of our country has not yet met the requirements. One of the causes of the above situation can be seen that due to the weakness in the people's awareness, many businesses in environmental protection work. In addition, the system of environmental protection agencies is too thin, which also contributes to the prevention and handling of polluting behaviours.

The administrative handling of acts of causing environmental pollution is not yet resolute and thorough. Measures to overcome the environment and return to the original state before the environment is polluted are not strictly observed. No criminal cases for environmental pollution have been taken. The investigating, prosecuting and adjudicating apparatus for pollution-causing acts at the level of crimes has hardly been started in practice.

Thus, it can be seen that, although the speed of institutional development in the field of environmental protection is concerned and strengthened, the effectiveness and enforcement of legal documents on environmental protection have not yet been considered mind, pay close attention. This is a weakness and omission of the legal system on environmental protection needs to pay special attention to overcome in the coming time so that all individuals and organizations in society have a higher awareness in protecting environmental protection, better observance of environmental protection laws and ensure environmental protection laws are thoroughly respected.

4. Orientations and solutions to perfect the law on environmental protection in the coming time
By assessing the achieved results as well as the shortcomings of the system of legal normative documents on environmental protection, it can be seen that, the need to complete the system of legal normative documents on protection. The environment is becoming a current, urgent requirement, to
enhance the effectiveness of this legal system. The improvement of the system of legal documents on environmental protection should follow the following orientations:

First, institutionalizing the Party's development viewpoints and policies, ensuring harmony between economic development, social justice and environmental protection, in order to sustainably develop the country; ensure human rights to live in a clean environment.

Second, the legal system on environmental protection must be built in a harmonious relationship with other legal provisions, especially with regard to the law on natural resources.

Thirdly, specifies responsibilities, including the responsibility to pay damages, the responsibility to restore the environment in case of causing pollution, causing damage to the environment. There are specific policies to encourage the application of pollution prevention measures and the use of clean technology.

Fourthly, there are regulations to strengthen the capacity and authority of the environmental impact monitoring agency, especially the function of supervising the issuance and revocation of technology equipment operating licenses; establish independent operating environmental assessment organizations (a form of independent environmental audit).

Fifthly, to formulate and promulgate adequate national technical regulations on environment to suit Vietnam's situation but not to create barriers to technical barriers (TBT) when Vietnam has joined the Trade Organization. World Trade.

Sixth, redefining the functions, duties and responsibilities of state management agencies on the protection of the environment and natural resources, as well as the concerned agencies, avoiding the current overlap. Clear assignment of duties and powers among state management agencies in charge of environmental protection at the central and local levels.

Seventhly, institutionalizing policies on using economic instruments in state management of environmental protection.

Eighth, complete the regulations on inspection of environmental protection. Completing the national standards and technical regulations on environment: Standards and environmental regulations are one of the important management tools to achieve the objectives and requirements set out in each period time of environmental management. The compulsory application of environmental standards and regulations is one of the basic measures to ensure environmental protection requirements.

In addition, in the coming time, there should also be specific regulations on agencies, organizations or individuals representing the State to initiate lawsuits to claim damages for environmental pollution, causing damage harm to state-owned environmental components that the state has not assigned to anyone to manage, use in a long-term or indivisible environment, such as ecosystems, natural landscapes or dynamically wild animals etc.

Environmental protection inspectorate: Environmental protection inspectorate is an important force in state management activities on environmental protection. However, since the Law on Inspection 2010 passed by the National Assembly in Law No. 56/2010/QH12 dated November 15, 2010 on organization, activities of state inspection and people's inspection takes effect from On July 1, 2011, the ministries and branches still perform the function of specialized inspection but there is no specialized inspection organization. In order for the environmental specialized inspection activities to be effective in order to implement the provisions of Article 125 of the Law on Environmental Protection, in the coming time, the Ministry of Natural Resources and Environment should assume the prime responsibility and coordinate with the concerned agencies such as The Ministry of the Interior and other ministries and branches shall draft a decree on the organization, tasks and powers of environmental protection inspectors to submit to the Government for consideration, promulgation and not contrary to the provisions of the Inspection Law 2010 [9,10].

Promulgating interdisciplinary resolutions on the division of powers among the concerned ministries and branches: In reality, the implementation of regulations on state management in the field of environmental protection, conflicts and disputes over competence between the Ministry of Natural Resources and Environment and the concerned ministries and branches is difficult to avoid. To address
this situation, the Ministry of Natural Resources and Environment may coordinate with the concerned ministries and branches in promulgating inter-branch resolutions to determine the state management competence. Although this solution has not been commonly used in Vietnam, this is a completely feasible solution in the current period.

In addition, the current Decree on penalties for violations against regulations on environmental protection needs to be amended and supplemented as follows:

Firstly, adjust and supplement to the 2008 Ordinance on Handling of Administrative Violations to ensure the consistency of the law. In order for the contents of this regulation to be implemented in the field of environmental protection, it is necessary to amend or supplement Decree 117/2009 / ND-CP accordingly.

Secondly, stipulating a mechanism to investigate individuals' responsibilities in case of handling administrative violations of organizations.

Completing criminal penalties for violations of environmental law: In the coming time, when completing the 1999 Penal Code, the above types of acts need to be studied for crimes. violation of acts of illegal cross-border transportation of wastes and radioactive substances, acts of using biological weapons, acts of violating regulations on use of dangerous substances and waste to the environment, violating safety regulations when exposed to microbiological or other biological toxins etc.

On the other hand, in order to bring the provisions of the 1999 Penal Code amended in 2009, which prescribe environmental crimes (Chapter XVII) into practice, it is necessary to issue a legal document soon. The implementation of 10 articles of Chapter XVII of the Criminal Code in the direction of clearly defining the clear boundary between administrative and criminal liability. Another issue that needs to be researched and completed in addition to the Criminal Code is the issue of investigating criminal liability for legal entities that violate environmental protection regulations. Although this issue has many different opinions, however, considering the requirements to ensure the severity of sanctions, enhance deterrence and prevention for violators and organizations, other individuals, ensuring democracy and cautiousness in the process of applying the law, the examination of criminal liability for legal entities that violate the law on environmental protection is necessary.

5. Conclusion
Via studying "Laws on environmental protection in Vietnam - Situation and solutions", the author draws some conclusions as follows: After more than 5 years since the promulgation of the 2005 Law on Environmental Protection was promulgated Vietnam has built a relatively large and comprehensive normative system of environmental protection, with strong legal effect, basically meeting the requirements of the cause of environmental protection in the current paragraph. Because environmental protection and the development of environmental protection legislation are complex and in many new ways for Vietnam, the legal system of environmental protection in Vietnam still has many shortcomings counter, exist. In the immediate future, it is proposed to prepare a revised Law on Environmental Protection. In the long term, it is necessary to study and formulate the Environment Code with a wide scope and subject of adjustment and cover all issues on environmental protection and natural resource management to suit the requirements of the country according to the goal is to basically become an industrial country by 2020. In order to improve the law on environmental protection, to ensure uniformity and consistency between the spirit and the provisions of the 2005 Law on Environmental Protection and the previously promulgated environmental laws, to meet requirements and requirements of the process of stepping up industrialization, modernization and proactive international economic integration, in the coming time, many new legal documents need to be enacted, including: The Clean Air Law, the Law on Protection of the Marine Environment, etc. ensure the consistency and uniformity of the legal system of environmental protection.

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