

Environment and Other Problems in Construction Sector - Case of Vietnam Industrial ZonesNguyen Xuan Hai¹, Dinh Tran Ngoc Huy, MBA^{2*}, Le Ngoc Nuong, PhD³ & Nguyen Dinh Trung, PhD⁴

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ABSTRACT

The purpose of this paper is to address ENVIRONMENT AND OTHER PROBLEMS IN CONSTRUCTION SECTOR - CASE OF VIETNAM INDUSTRIAL ZONES. In this paper, we suggest that Vietnam cities should have policies to encourage and give priority support to production and business establishments that apply clean and environmentally friendly technologies such as gas technology instead of coal technology, firewood in ceramic production, and charcoal production. Bees make use of the residues of buckwheat. High technology is a progressive and inevitable trend to solve environmental pollution in craft villages and industrial zones.

Keywords: Problems; Construction sector; Environment.

1. Introduction*First we understand,*

Concept and role of industrial cluster infrastructure:

The English word Infrastructure is directly composed of two words: i) Infra below, the lower part is also called infrastructure and ii) structure means structure, structure) is translated as infrastructure or infrastructure. Some authors define: "Infrastructure or infrastructure is a general concept to refer to roads, railways, hospitals, schools, irrigation systems, water supply, etc., accumulated from central and local state investments. This concept also includes intangible assets such as capital and human resources, i.e. investments in workforce training. Infrastructure plays an important role in achieving high rates of economic growth and raising the overall standard of living of a country." According to this concept, infrastructure is seen as sectors and fields of the national economy, not only the material and technical conditions (building systems) created. established to ensure socio-economic development, but also has the human, financial, management and training factors and conditions to create and the material and technical conditions and operate them to serve as the foundation foundation for economic and social activities.

Vietnamese dictionary defines "Infrastructure is the whole system of works such as roads, electricity supply roads, water supply, drainage, waste... in relation to the constructions and houses being built. in that area. In my understanding, "infrastructure" is specialized works for production and social life, and "infrastructure" is also a construction, but built in a certain area. As we say, the scope mentioned in "infrastructure" is narrower than "infrastructure".

Thus, it can be understood that the infrastructure/infrastructure is a specific part of the material and technical infrastructure in the national economy whose basic function and task is to ensure the necessary general conditions for the development of the economy. The extended production and reproduction process is normal and continuous.

Infrastructure / infrastructure is also defined as the totality of physical, technical and architectural facilities that play a fundamental role for socio-economic activities to take place in a normal and positive manner. in environmental protection of CCNs.

+ Set up environmental monitoring system.

CCN needs to build and invest in upgrading the operational capacity of the environmental monitoring system (Monitoring) in the Cluster. Through this environmental monitoring system, it is possible to timely, accurately assess and strictly control the status of environmental quality as well as the level of environmental pollution in air, water, odor, noise, in the environment. area and its impact on the adjacent area. From there, there are timely and effective technical measures to ensure environmental quality in general.

In fact there are several problems in constructing industrial clusters, so we choose this research topic:

“Environment and Other Problems in Construction Sector - Case of Vietnam Industrial Zones”.

1.1. Methodology

Authors have used qualitative and analytical methods, descriptive method for primary model, synthesis and discussion methods in this paper.

We also used historical materialism method.

2. Main Findings

2.1. Environment law 2020

Ngo Ngoc Diem (2023) pointed that Reality shows that those who suffer damage due to violations of environmental laws are much weaker than polluters from their financial potential, relationships with state agencies, legal knowledge, to the potential of science and technology. It is difficult for subjects who suffer damage due to environmental pollution to prove the above conditions to be compensated for damage. Therefore, it is necessary to take into account the change of the burden of proof from the subject of damage to the subject of violations of environmental law. In principle, all entities have an obligation to protect the environment. However, it is necessary to clearly define the responsibilities of the actors in this process. Responsibility for environmental protection belongs to the State, waste source owners, organizations, individuals and communities. Accordingly, the State must have the leading responsibility in environmental protection, because the State on behalf of the people to manage society, including state management of the environment. Also we need Building a culture of communication and behavior.

2.2. Background of constructing industrial zones

In many research works on infrastructure/infrastructure, authors often divide infrastructure / infrastructure into two basic categories, including: economic infrastructure and social infrastructure.

(1) Economic infrastructure includes technical infrastructure works such as: energy (electricity, coal, oil and gas) for production and life, transportation works (road, railway, etc.), post and telecommunications, irrigation works for agricultural - forestry - fishery production... Infrastructure/economic infrastructure is a part It is an important

factor in the economic system, ensuring a fast, stable and sustainable development of the economy and is a driving force for faster development, creating conditions for improving people's lives.

(2) Social infrastructure includes housing, scientific facilities, schools, hospitals, cultural and sports facilities, etc. and equipment synchronous with them. This is an essential condition for serving and improving the living standards of the population community, fostering and developing human resources in line with the process of industrialization and modernization of the country. Thus, social infrastructure is a collection of a number of sectors with the nature of social services; The products they create are expressed in the form of services and are often of a public nature, related to human development both physically and mentally.

The above approaches, for the industrial revolution using the concept of infrastructure is appropriate, because it can be understood: The infrastructure of the industrial revolution is a combination of physical, technical and social facilities that play a fundamental role for development. and activities of the industrial cluster (CCN). Industrial infrastructure is divided into 2 main groups: Technical infrastructure and Social infrastructure.

* Technical infrastructure (hardware) means the works and means of the traffic and road system; power supply; water supply and drainage system; environmental treatment, post and telecommunications, fire prevention, etc.

Transport system, roads. Roads in CCNs play a decisive role in expanding production scale, increasing production capacity, unit transportation costs of CCNs or alliances between economic actors inside and outside the locality. Thanks to the development of transportation, raw materials and products can be exchanged easily, better serving the needs of the market. Well-developed CCNs all have convenient roads. This is an important condition because if it is not convenient for transportation, it is difficult for the CCN to survive for a long time.

Environmental treatment infrastructure. The problem of environmental treatment is one of the issues that need to be taken care of because the majority of industrial zones in the country in general and Hanoi in particular have not yet treated the environment, this is the basic reason causing pollution. The environment is serious in the CCNs in Vietnam today.

Electric supplying system. This is a decisive factor in whether to invest in CCNs or not. A location where the electricity system is unstable and insufficient for production and use will not attract business households to participate in production. Electricity has many effects, especially to meet the needs of mechanization, first of all, mechanization at some stages in the production process, application of advanced technology in production to increase production capacity. product competition in the market.

Telecommunications, internet and communication systems. Currently, due to the rapid development of the post and telecommunications industry, most households have fixed telephones in the localities, and the mobile phone network has covered more and more provinces in the country. Facilitating fast communication guarantees. Many business establishments in CCNs have connected to the internet, making it easy for their products to participate in the e-commerce system, convenient for advertising, and to participate in domestic and international markets.

Other systems such as: water supply and drainage; fire protection and prevention; waste treatment area; warehouses and yards; parking, etc.

** Social infrastructure (software) includes works and is a condition for the maintenance and development of human resources in a comprehensive way (training institutions, medical and healthcare facilities, hospitals, etc.) accommodation for workers, banking services, security protection inside and outside the cluster ...).*

The development of infrastructure and the development of industrial zones have a clear interrelationship: in regions with good and developed infrastructure, the process of industrial construction and development takes place more smoothly. In contrast, in places with slow industrial development, it is often due to poor infrastructure and lack of synchronization. It is this close reciprocal relationship that infrastructure development is considered both a condition and an integral component of the entire process of formation and development of industrial zones.

3. Discussion and conclusion

State management of industrial infrastructure construction still has some shortcomings such as:

+ For the State management of land: The status of investment projects in the CCN when being allocated land do not deploy on schedule, do not conform to the licensed project contents, violate regulations on land management. There's still a lot going on. Many industrial estates, when allocating land to households, have used the land for the wrong purpose, turning it into residential land, living land, new concentrated residential areas, etc., which do not meet the objectives of industrial construction. Many industrial clusters have the status of receiving and arranging projects that are not in accordance with the approved detailed planning (the Hapro industrial cluster (CCN) is planned as a food processing cluster, actually licensed to invest into a multi-industry cluster).

+ For the State management of investment: The coordination between State management agencies in attracting and receiving investment in industrial zones is still limited; Procedures for investment and land allocation for secondary investment projects in industrial zones are still complicated, with many clues causing difficulties for investors; The status of receiving investment, arranging secondary investment projects not in accordance with the planning is still common; Investment projects at CCNs implementing projects behind schedule, not conforming to the licensed investment content, illegally transferring projects, etc. are still quite common; The reporting information regime has not been seriously implemented by infrastructure investors and secondary investors in CCN. The mobilization of investment capital to build technical infrastructure for industrial zones invested by the People's Committees of districts and communes is still difficult and inadequate.

The organization of selecting investors for construction and infrastructure business is not really strict, many investors have limited capacity, so progress is slow, construction quality is still low. Most of the investors in infrastructure of industrial zones are CCN Management Boards established under the decision of the City. This investor establishment mechanism causes the disadvantage of 1 project but there are 2 or 3 investors (e.g. Vinh Tuy CCN, Phu Thi CCN), which makes it difficult to unify management for the project. with infrastructure, especially for the maintenance and repair of technical infrastructure works in the future.

+ For the State management of the environment: The inspection and examination are still weak; CCNs have not properly and fully complied with regulations on environmental protection. Among the CCNs that have been put into operation, only 5 have wastewater treatment items; most industrial zones do not plan and build concentrated water supply items; secondary investment projects to drill underground water to serve production, violating

regulations on protection of water resources; Most of the secondary investment projects do not meet the criteria for the percentage of trees and other regulations on environmental protection.

+ There is no consensus on the focal agency for State management of industrial parks; Most CCNs have not yet issued a management charter and established an operation management board. Through the survey, the author found that most of the CCNs owned by enterprises as an investor in construction and infrastructure business have issued management charters, organizing and operating basic operations in accordance with regulations. Meanwhile, the CCNs run by the People's Committees of districts and communes have almost no official operation management apparatus, management charters, management fee collection, etc., so the State management faces many difficulties.

Hence:

The city should have policies to encourage and give priority support to production and business establishments that apply clean and environmentally friendly technologies such as gas technology instead of coal technology, firewood in ceramic production, and charcoal production. Bees make use of the residues of buckwheat. High technology is a progressive and inevitable trend to solve environmental pollution in craft villages and industrial zones. In addition, it also promotes research and production of CCN environmental treatment technologies and equipment with suitable prices to equip and apply in CCNs in order to actively contribute to environmental protection of CCNs.

+ Set up environmental monitoring system.

CCN needs to build and invest in upgrading the operational capacity of the environmental monitoring system (Monitoring) in the Cluster. Through this environmental monitoring system, it is possible to timely, accurately assess and strictly control the status of environmental quality as well as the level of environmental pollution in air, water, odor, noise, in the environment. area and its impact on the adjacent area. From there, there are timely and effective technical measures to ensure environmental quality in general.

Declarations

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Authors have declared no competing interests.

Consent for Publication

The authors declare that they consented to the publication of this research work.

Author's Contribution

All the authors took part in data collection and manuscript writing equally.

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