

Potential Uses of Environmental Impact Assessment Report for Environmental Dispute Resolution in Vietnam

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Abstract. Environmental Impact Assessment (EIA) is a mandatory legal procedure for investment projects in Vietnam (the LEP 2005). EIA report is a base for authority agencies to make decision on investment project approval and a foundation for environmental management agencies to control and inspect the implementation of legal regulations on project environmental protection. Therefore, the results of EIA report are valuable not only in terms of science but also in terms of law in environmental management and environmental dispute solutions relating to projects' activities. However, in fact, environmental impact assessment in Vietnam still discloses restrictions and does not reflect all its values as a project environmental management tool. This article mentions the legal characters, ability, necessity and some solutions to use the results of project environmental impact assessment in the industrial production field in Vietnam as one of scientific and legal bases in environmental dispute solution.

Keywords: Environmental Impact Assessment (EIA), Environmental Dispute, Law on Environmental Protection (LEP).

1. Introduction

In recent years, Vietnam is one of the fastest growing nations in the world and has achieved many accomplishments in socio-economic development and poverty reduction [1]. Average GDP growth rate in 2006-2010 period has reached 7%, which pushed Vietnam one step further in the industrialization and modernization promoting process. However, together with the general growth of the economy, urbanization and industrialization,

Vietnam is facing many challenges due to pollution, recession, environmental incidents, natural resource exhaustion, biodiversity loss, accompanied by claims about pollution and environmental degradation consequences. Environmental pollution in urban areas, industrial zones, trade villages, river valleys all over the country and other urgent environmental issues have become hot matters concerned by the whole society [2].

Together with policy priority given for socio-economic development investment, Vietnam government has very much focused on the use of legal tools in combination with

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technical tools in environmental management. Governments, international sponsors and non-governmental organizations have confirmed environmental impact assessment as a medium and tool to control the impacts of economic development over natural environment. Considerable financial and human resources have been put into environmental impact assessment research and development in Vietnam for the last decade [3].

Legal policies on environmental impact assessment of socio-economic development projects have appeared early in Vietnam. This issue has been stipulated in Law in Environment Protection 1993 [4]. Moreover, environmental impact assessment regulations on investment projects have been concretized in Law in Environment Protection 2005 and the implementation guiding text in terms of content, form and quality requirements [5]. However, in reality, environmental impact assessment in Vietnam need be investigated and completed to be actually an efficient tool in environmental management of investment projects. Issues mentioned in this article concentrate on legal position research, the necessity to use results of industrial production project environmental impact assessment in

Vietnam in environmental disputes through the analysis of quality shortcomings and restrictions of EIA reports. On this basis, we put forward solutions to improve the quality of EIA report results in order to use it as one of scientific and legal bases in environmental disputes.

2. Vietnam law and policies on EIA report establishment

a) Project's EIA report is a legal basis for environmental management agencies to approve project investment and implementation

Law on Environment Protection 2005 and legal documents (Table 1) regulate that EIA report establishment is carried out simultaneously with investment project establishment (feasibility study report). EIA reports are assessed and approved by environmental management agencies. Based on the assessment results of EIA reports, authority agencies can make decision on whether to ratify projects or not. Or some work in the projects must be regulated to satisfy the environmental requirements [5].

Table 1. Legal documents stipulating legal position of environmental impact assessment

| <i>No</i> | <i>Document name</i> | <i>Content</i> |
|-----------|--|--|
| 1 | Law on Environment Protection (LEP) on November 29, 2005 | Stipulates subjects to implement EIA; State agencies' responsibilities in the EIA report assessment |
| 2 | Decree No. 29/2011/ND-CP on April 18, 2011 of the government on strategic environmental assessment, environmental impact assessment, environmental protection commitments (Decree No.29 for short) | Stipulates detailed list of investment project categories mandatory to be established EIA reports; basic content of EIA reports, period for forming EIA reports in investment project establishment process; |
| 3 | Circular No.26/2011/TT-BTNMT on July 18, 2011 of MONRE in detail some articles of Decree No.29 | Stipulates the process of EIA report assessment and approval; structure, content detailed requirements and form of EIA report. |

b) Approved project's EIA report is a basis to implement environmental management in the project performance process

Project EIA report needs ensure the content requirements according to regulations (Table 2). When approved by State environmental management agencies, EIA report is a basis for environmental management agencies to

supervise and keep track of environmental protection activities of projects such as waste treatment, environmental protection method implementation. Simultaneously, EIA report is a basis for environmental management agencies to supervise and solve environmental complaints, denunciations and disputes in project manager's activities [5, 6].

Table 2. Requirements on EIA report content

| No. | Content requirements |
|-----|--|
| 1 | Description about project origin (scale, work, etc) |
| 2 | Assessment methods, information and data source |
| 3 | General evaluation on the situation of project area and surrounding environment |
| 4 | Evaluation and forecast of project impacts on natural environment, community and relating socio-economic elements |
| 5 | Public consultation in EIA report establishment process |
| 6 | Propose methods to minimize bad effects on natural environment, community health and socio-economic elements |
| 7 | Work list, environmental issue management and supervision program in project implementation process |
| 8 | Construction cost estimate of environmental protection work in total estimated budget of the project |
| 9 | Project manager's commitments on the implementation of environmental protection methods in the construction and operation process of projects proposed in EIA report |

[Source: Decree No.29/2011/NĐ-CP on April 18, 2011 of the government]

3. Using the results of project environmental impact assessment as one of the bases to solve environmental disputes

In environmental dispute resolution process, the specification of subjects, scopes and damage extent is of importance and a basis to calculate indemnity levels [6]. Environmental impact assessment is a tool enabling to solve this issue because of the following reasons:

a) Environmental impact assessment allows to define affected subjects leading to damage in environmental dispute resolution

When carrying out environmental impact assessment, project manager studies and specifies subjects which can be affected by project activities. Thus, affected subjects can be soil, water, air, ecosystem, resources,

community health environments. These subjects are defined based on scientific research results and project implementation areas reality.

The fact that EIA report is approved means that information and data on subjects affected by project activities will be legalized. Thus, we can specify damaged subjects in environmental dispute resolution through information and data on affected subjects determination results in EIA report.

b) Environmental impact assessment allows to determine the scope and severity of impact and damage to the environment, resource and community health in environmental dispute resolution

In environmental impact assessment process, the scope and severity of impact on the

environment, resource and community health due to project activities have been calculated and defined. Environmental impact assessment evaluation agencies base on characteristics, nature and scale of waste and environmental features in the area to give conclusion about the severity and scope of environmental protection.

When EIA report is approved, the results of impact scope and severity determination by environmental pollution will be used as a basis for specifying damage scope and severity in environmental dispute resolution.

c) EIA defines the cost to perform environmental protection methods in project implementation process as a basis to calculate damage indemnity cost in environmental dispute resolution.

Environmental protection methods are put forward on the basis of subject, scope and impact extent study in EIA process. EIA assessment and approval agencies base on the feasibility of environmental protection methods to decide the application according to the goal of controlling, minimizing and treating environmental pollution reaching national technical standards and regulations on environment.

In environmental protection methods implementation process, the costs of these issues will be calculated. Thus, we can base on calculation data of environmental protection methods implementation costs to work out damage indemnity cost and carry out measures to overcome consequences in environmental dispute resolution process.

3. The situation of EIA establishment and assessment in Vietnam

3.1. The situation of EIA report establishment

According to Decree No.29/2011/ND-CP on April 18, 2011 of the government, subjects which must set up EIA report belong to 19 project groups divided into 146 different kinds of projects. EIA is an important legal and technical tool to identify, analyze and forecast projects' environmental impact; provides scientific ground for the government, management agencies and enterprises to consider while making decision about investment [2, 4].

However, EIA activities in Vietnam still expose many insufficiency and weaknesses both of quality and implementation process obedience. Through statistical survey results among national level-approved 269 EIA reports of projects in industrial production field in 2005-2009 period, we can summarize some following comments:

a) EIA report establishment methods and technique still have some drawbacks

Quantitative methods such as modeling, cost-benefit analysis and map convolution ones to specify impact scope are rarely used or used as a procedure in EIA reports in Vietnam.

Statistical survey results among national level-approved 269 EIA reports of projects in industrial production field in the 2005-2009 period in Table 3 show that only 66.54% use modeling method and software to calculate pollution scope and level, the impact on water, air, noise environments.

Table 3. Statistics summary of methods and evaluation results of impact extent and severity in national level-approved project EIA reports in industrial production field in the 2005-2009 period

| No. | Assessment time | No. of assessed EIA | Methods used in EIA/ The results of impact extent and severity specification | | | | | |
|-----|-----------------|---------------------|--|---------------|--|----------------------|---|--------------|
| | | | Methods: Data and condition list, quick evaluation | | Methods: Direct field survey and measurement | | Methods: Modeling/ Calculation software | |
| | | | Qualitative results | | | Quantitative results | | |
| | | | Quantity | Percentage | Quantity | Percentage | Quantity | Percentage |
| 1 | 2005 | 28 | 28 | 100.00 | 28 | 100.00 | 12 | 42.86 |
| 2 | 2006 | 43 | 43 | 100.00 | 43 | 100.00 | 21 | 48.84 |
| 3 | 2007 | 65 | 65 | 100.00 | 65 | 100.00 | 34 | 52.31 |
| 4 | 2008 | 102 | 102 | 100.00 | 102 | 100.00 | 85 | 83.33 |
| 5 | 2009 | 31 | 31 | 100.00 | 31 | 100.00 | 27 | 87.10 |
| | Total | 269 | 269 | 100.00 | 269 | 100.00 | 179 | 66.54 |

[Source: The authors total up and summarize among EIA assessment result documents of MONRE, 2011]

In recent years, some EIA reports have used modeling method to evaluate environmental impact level. However, the choice of model, parameters and input data is still unsuitable and short of scientific basis and trustworthiness.

b) The lack of information and input data for EIA process

At present, we have not had the database of consistent input data (waste, meteorology and terrain data, natural environment data) to use for models, software programs in order to ensure the trustworthiness of air pollution calculation results in Vietnam [3, 9].

Besides, environmental monitoring systems have not been synchronized, equipments have not been modernized, which creates difficulties in providing input data for the model and comparing, verifying between the results of model calculations and actual measurements.

c) All influenced subjects, sensitivity level and the load capacity of the environment have not been specified

The fact in recent years shows that some EIA reports have not identified all influenced subjects because of subjective causes in assessment process or objective causes due to characteristics, complexity of environment and the lack of ecosystem data and the information about the load capacity of manufacturing business area environment. This will create difficulties in indentifying damaged subjects and economic loss because of environmental pollution.

d) Detailed extent and severity of impact on the environment have not been specified

EIA reports in recent years show that the specification of the extent and severity of impact on the environment has not been clear and detailed. Some EIA do not define or define the impact on the environment and community health in surrounding areas qualitatively. The main reason is that data and information are lacking or the suitable methods to quantify the impact on environment have not been accessed in assessment process.

Statistical survey results among national level-approved 269 EIA reports of projects in industrial production field in the 2005-2009 period in Table 3 show that 100% of the reports evaluate the extent and severity of the impact on the environment qualitatively, only 66.54% evaluate quantitatively.

e) The public consultation in EIA process is still formal

The files of investigated EIA reports show that opinions written in public consultation documents are very general, require environmental

protection methods implementation according to the regulations, and only state fund issue for welfare and local labour acceptance activities.

Statistical survey results among national level-approved 269 EIA reports of projects in industrial production field in the 2005-2009 period in Table 4 show that 92.57% of the reports reach the agreement of project implementation location, 88.1% reach the agreement of environmental protection methods, 89.96% reach the agreement of influenced subjects, 66.54% reach the agreement of impact extent and severity.

Table 4. Statistics summary of public consultation situation in national level-approved project EIA reports in industrial production field in 2005-2009 period

| No. | Assessment time | No. of assessed EIA | EIA with public consultation | | | | | | | |
|-----|-----------------|---------------------|---------------------------------|--------------|--------------------------------|--------------|-----------------|--------------|-------------------------------|--------------|
| | | | Project implementation location | | Environment protection methods | | Impact subjects | | Extent and severity of impact | |
| | | | Quantity | Percentage | Quantity | Percentage | Quantity | Percentage | Quantity | Percentage |
| 1 | 2005 | 28 | 25 | 89.29 | 23 | 82.14 | 23 | 82.14 | 12 | 42.86 |
| 2 | 2006 | 43 | 39 | 90.70 | 37 | 86.05 | 38 | 88.37 | 21 | 48.84 |
| 3 | 2007 | 65 | 61 | 93.85 | 59 | 90.77 | 62 | 95.38 | 34 | 52.31 |
| 4 | 2008 | 102 | 97 | 95.10 | 92 | 90.20 | 91 | 89.22 | 85 | 83.33 |
| 5 | 2009 | 31 | 27 | 87.10 | 26 | 83.87 | 28 | 90.32 | 27 | 87.10 |
| | Total | 269 | 249 | 92.57 | 237 | 88.10 | 242 | 89.96 | 179 | 66.54 |

[Source: The authors total up and summarize among EIA assessment result documents of MONRE, 2011]

Consultation process has not reached the unification of the specification of influenced subjects, the extent and severity of impact on the environment, ecosystem, community health in surrounding areas or industrial manufacturing bases. This leads to the difficulties in agreement on the above issues when environmental disputes occur and are solved in manufacturing and business activities.

EIA report study shows that some information and data can be used for environmental dispute resolution. These data include information about manufacturing and business activities, waste and some impact on resources and the environment. However, in environmental dispute resolution process, some results in EIA reports are still not specific and detailed enough to be used. Some EIA reports are of low quality, their figures are not

objective, trustworthy and can not be a legal and scientific base to be used in environmental dispute resolution in Vietnam.

3.2. The situation of EIA report assessment

According to Law on Environment Protection (Article 21), EIA report assessment is carried out in the form of assessment board or assessment service organizations. However, in fact, the form of assessment board has been applied more. Ministry of Natural Resources and Environment organize EIA report assessment board for projects approved by National Assembly, the government, the prime minister, interdisciplinary and interprovincial projects, Ministry, ministerial and governmental agencies organize EIA report assessment board for projects of their approval and decision authority, except interdisciplinary and interprovincial ones; provincial people's committees organize the EIA report assessment for projects in areas of their decision and approval authority and of the same level people's councils [4].

On the basis of assessment board meeting minutes, assessment reality in recent years still has certain drawbacks. Some assessment boards' conclusions often state general rules and some requirements for EIA report revision. They do not make specific requests for methods, contents, influenced subjects, the extent and severity of impact quantitatively. Besides, standing agencies of assessment boards have not supervised closely and specifically EIA report issue revision and supplementation results based on the board's conclusions. Its reasons are the limit of the assessment agency staff and assessment specialists in quantity and quality; the lack of

machines and equipments to verify EIA report results [4].

4. Solutions to improve the quality of EIA report results for environmental dispute resolution in Vietnam

As indicated above, EIA is a useful tool used in environmental management and environmental dispute resolution. However, in order to perform this function, it is necessary to apply some following EIA quality improvement methods:

a) Better the EIA legal document system and technical instruction for different kinds of projects

EIA legal document system needs to be improved towards mandatory use of methods, calculation software to make quantitative assessment of the scope and extent of environment impacts in EIA process; EIA report content adjustment to add all influenced subjects which have not been evaluated at the time of EIA report establishment, assessment and approval due to objective reasons; environmental technical standards and regulations completion for EIA report establishment and approval; sanctions for law violations of EIA report establishment and approval. Besides, there is a need to build and better EIA technical instructions for specific kinds of projects.

b) Build up national and industry database for EIA report establishment and assessment process

Information database for EIA report establishment and assessment needs to be built systematically. This database needs to have

basic survey results, environmental monitoring, meteorology, hydrology results, ecosystem and biodiversity data, information about the waste likely to cause environmental pollution, data on polluted and degraded areas and environmental problems, information about EIA methods, tools and calculation software, results of environmental damage indemnity solved by authority state agencies and relating socio-economic information [7]. The database needs to be updated, controlled and used for EIA establishment and approval.

c) Use trustworthy methods and software programs to calculate pollution scope and extent, map environmental impact partition in EIA process

In EIA process, one important issue is to specify the scope and extent of impact on environment and surrounding community health. Vietnamese legal system has regulations of principle ensuring the human capacity and equipment for EIA establishment consulting organizations.

Besides, the usage of trustworthy methods and evaluation tools is very meaningful for EIA report quality. Particularly, with respect to projects emitting dust, harmful air, wastewater, it is a must to use trustworthy software programs to calculate the scope and extent of pollution, map the environmentally influenced area partition at different levels in EIA process [8].

d) Adjust the EIA report content to add influenced subjects which have not been totally evaluated at the time of EIA report establishment and approval due to objective reasons

The environment has complicated characteristics and nature, its development

always changes. On the other hand, because of objective causes, in EIA report establishment and assessment process, all influenced subjects, impact scope and extent can not be identified. Therefore, EIA report content needs to be adjusted regularly. This issue comes from EIA argument nature which is an environmental impact forecast and evaluation.

e) Carry out public consultation in EIA process as an agreement method between project manager and the public in the identification of influenced subjects, the environmental impact scope and extent

The public consultation in EIA report establishment process is applied according to Law on Environment Protection. Apart from the agreement between the government and local community on project implementation place, environmental protection methods, welfare and local labour acceptance activities, project manager needs to negotiate to identify influenced subjects, environmental impact scope and extent through project's EIA report [9]. These are considered initial agreement when environmental dispute has not occurred yet. This will be useful and convenient when environmental disputes in projects' future manufacturing and business activities are solved.

f) Ensure the quality and efficiency of EIA report assessment in both central and local levels.

Ensure the staff resource in terms of both quantity and quality for EIA state management agencies system at the central and local level. Invest in machines, equipments to verify EIA report results. Ensure necessary fund for activities before, during and after EIA assessment. Ensure the legal liability implementation of assessment board's standing

body in the close and detailed supervision of EIA report's issue supplementation and correction results based on assessment board's conclusion.

5. Conclusion and recommendations

1. EIA is used as a useful tool in environmental management of investment projects thanks to its scientific and legal nature and value. Moreover, the usage of EIA report results to solve environmental disputes has scientific and legal basis, and economize financial and time costs as well. Thus, there is a need for the regulations of EIA result usage in environmental dispute resolution.

2. Carry out the argument and reality study in environmental impact assessment. In specific, focus on studying to use trustworthy methods and software programs to calculate pollution scope and extent, mapping environmental impact partition in EIA process; building up national and industrial database for EIA report establishment and assessment.

3. Improve EIA legal system. Concentrate on concretizing legal regulations towards mandatory use calculation methods and software tools to evaluate the scope and extent of environmental impact quantitatively in EIA process; EIA report content adjustment to add influenced subjects which have not been totally evaluated at the time of EIA report establishment and assessment; improvement of environmental technical standards and regulations for EIA report establishment and assessment; sanctions for violation of legal regulations of EIA report establishment and assessment.

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Khả năng sử dụng kết quả đánh giá tác động môi trường để giải quyết tranh chấp môi trường ở Việt Nam

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Đánh giá tác động môi trường (ĐTM) là một thủ tục pháp lý bắt buộc thực hiện đối với các dự án đầu tư ở Việt Nam. Vấn đề này được quy định trong Luật Bảo vệ môi trường (BVMT) năm 2005. Báo cáo ĐTM là căn cứ để cơ quan có thẩm quyền phê duyệt dự án, thanh tra, kiểm tra việc thực hiện các quy định pháp luật về BVMT khi thực hiện dự án. Do vậy, kết quả trong báo cáo ĐTM không những có giá trị về mặt khoa học mà còn có giá trị về mặt pháp lý trong quản lý môi trường và giải quyết các tranh chấp môi trường liên quan đến hoạt động của dự án. Tuy nhiên, trong thực tế, công tác ĐTM ở Việt Nam còn bộc lộ những hạn chế, bất cập, chưa phản ánh hết các giá trị như là công cụ quản lý môi trường đối với dự án. Bài viết này đề cập đến giá trị pháp lý, khả năng, sự cần thiết và giải pháp sử dụng kết quả ĐTM của dự án trong lĩnh vực sản xuất công nghiệp ở Việt Nam như là một trong những căn cứ khoa học và pháp lý trong việc tranh chấp môi trường.