

The Comparative Study of Environmental Impact Post-Project- Assessment and Environmental Impact Assessment Systems

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Abstract: The connection and difference of environmental impact post-project-assessment (EIPPA) and environmental impact assessment (EIA) can be concluded by reviewing the development status, theoretical connotation, the applicable objects and role. Accordingly promote the theoretical development of EIPPA, and clarify the key points of the EIPPA in future, which enhance the further improvement of EIA and then boost the scientific of the environmental assessment system.

Keywords: environmental impact post-project-assessment, environment impact assessment, comparative analysis, scientific, accuracy.

1. INTRODUCTION

EIA was first proposed in the form of law in 2002 in the Environmental impact assessment law of the People's Republic of China, then aiming at shortcomings and deficiencies in the execution, implementation, prediction of the original environmental impact assessment, EIPPA was introduced [1]. At present, the basis for actual work of EIPPA was Administrative measures for EIPPA of construction projects (trial) implemented on January 1, 2016. This provision makes a summary about construction, implementation and development process of related enterprises or projects comprehensively, with the focus on the analysis and summary of pollutant discharge, environmental protection measures, environmental risk control, environmental monitoring, management since the project was put into operation. Compared with EIPPA, the theory and system of environmental impact assessment are mature in China [2]. Through the comparative analysis of the EIPPA and the EIA system providing research basis for the implementation and key emphasis in EIPPA work, thus promoting the continuous deepening and improvement of the EIA system.

2. COMPARATIVE ANALYSIS OF THEORETICAL CONTENT

2.1 Concept and connotation of EIPPA

The definition of EIPPA in the management measures for EIPPA of construction projects (trial), which took effect on January 1, 2016. namely after construction activity or operation and on the basis of previous EIA work, according to the actual running condition combined with the operation of enterprise management experience, analyze pollutants node and the pollution source when enterprises or projects put into use, reviewing the problems that exists in the operation that environmental quality change of the project area, tracking, diagnosing, validating. Finally make an assessment for pollutant discharge before and after project implementation and Changes in the quality of the surrounding environment. Then proposing remedial plans for existing problems [3].

2.2 Concept and connotation of EIA

According to the definition of environmental impact assessment in the environmental impact assessment law of the People's Republic of China [4]. To put it simply, EIA is divided into two parts. The first part analyzes and predict the possible environmental impact on the surrounding area when the project is completed and put into operation. The second part propose the corresponding governance plan and effective mitigation measures and methods according to the analysis results, and put forward the corresponding environmental protection requirements and Suggestions for the project engineering design, so as to provide a scientific basis for the project manager.

2.3 The relation and difference between EIPPA and EIA

From the theoretical connotations of the above two, it is not difficult to see that EIPPA is a comprehensive environmental assessment work in the early stage, which is effectiveness verification on the accuracy of prediction results, environmental protection measures, requirements and approval validity of the original EIA [5]. The difference between the two is that EIA is a pre-judgment assessment, which focuses on activities implemented or the analysis, prediction and evaluation of the possible environmental impact after the implementation of construction activities. EIPPA make an assessment on the actual running situation, making systematic investigation and evaluation of the actual environmental impact degree after the project operation in a period time , analyzing the construction projects running in a period of time, mainly include whether the pollutants satisfies the requirement of discharging standard, whether the pollutant control measures and the environmental risk prevention and control measures in effective way, whether the actual impact on the environment is consistent with the prediction in the original EIA.

3. COMPARATIVE ANALYSIS OF APPLICABLE SUBJECT OBJECTS

3.1 The applicable object of EIPPA

The Environmental Impact Assessment Law of the People's Republic of China stipulates that there are two situations [5] requiring post-environmental impact assessment, details are shown in Figure 1:

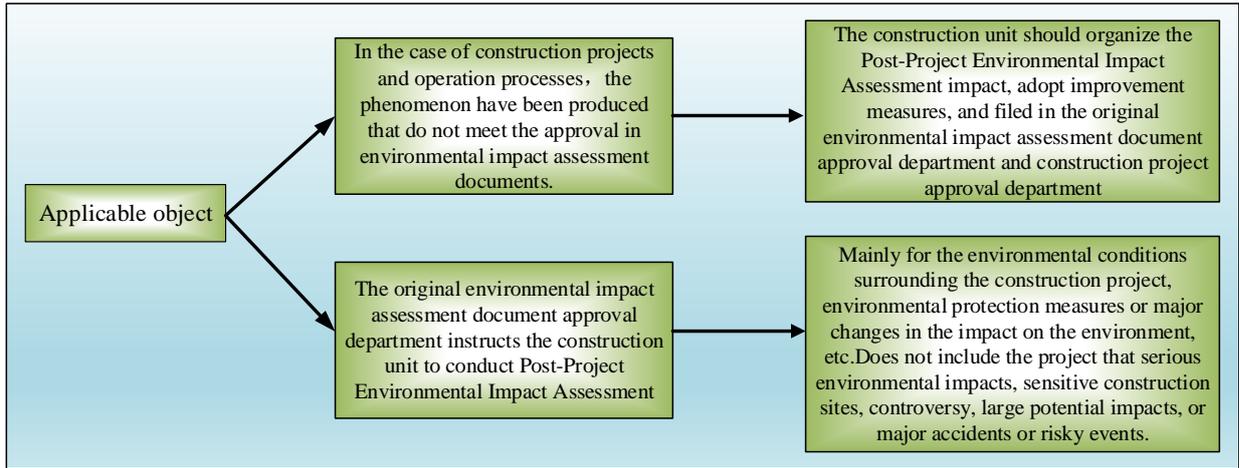


Fig 1. Applicable object of EIPPA

In addition to the above two cases, depending on the different ways and purposes of the post-evaluation, it can usually be divided into the following two cases:

- (1) For the purpose of research, studying the accuracy and rationality of the technical methods for EIA, and summarizing the current technical methods of EIA.
- (2) For the purpose of reissuing the EIA procedures, this situation is mainly due to the fact that the relevant enterprises have not paid enough attention to the EIA system, which has led to some unapproved phenomena. After the relevant environmental protection departments find the problems, the EIA procedures will be re-submitted [6].

3.2 The applicable object of environmental impact assessment

According to the provisions of the Law of the People's Republic of China on Environmental Impact Assessment, EIA required in the situation shown in Figure 2 [7].

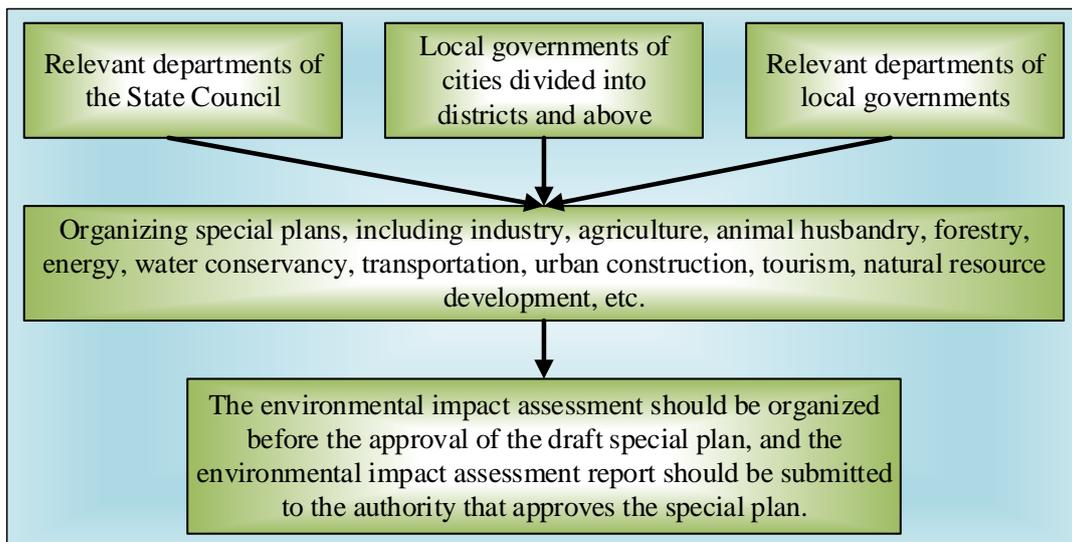


Fig 2. Applicable objects of EIA

It can be seen from Figure 2 that any special plan that has an impact on the environment during the construction process needs to carry out relevant environmental impact assessment and submit an environmental impact report.

3.3 Comparative analysis between EIPPA and EIA

From the above illustrations, it can be obtained that although China's applicable targets for EIPPA have given specific provisions in the EIA, with the continuous development of post-evaluation projects, their application areas will continue to expand. The applicable subject objects will continue to be enriched, gradually supplement and improve are necessary according to the development of EIPPA [8]. However, for the application of EIA, it is gradually extended from a single construction to a regional plan. The EIA regulation gives a relatively comprehensive and specific application. With the improvement of the national attention and the expansion and deepening of the post-evaluation research on environmental impact, the applicable objects and application scope of the EIPPA will be continuously enriched and embodied.

4. COMPARATIVE ANALYSIS OF EFFECT AND SIGNIFICANCE

Whether it is EIPPA or EIA, the objectives of the two are consistent, aiming at promoting the harmonious development of people and the environment., the EIPPA belongs to the post-evaluation process of environmental impact assessment, Through environmental impact post-evaluation, it can effectively verify the prediction results in the previous environmental impact assessment and the accuracy of the proposed environmental protection measures, so as to effectively improve the quality of EIA and promote the improvement and development of environmental impact assessment systems[9]. The role of EIA is mainly reflected in the project development and implementation, its main role is to prevent and predict possible environmental pollution, to provide effective advice for project developers. The EIPPA is contrary to the EIA. It is mainly after the implementation of the project and stable operation for a period of time. The main role is to supervise and verify, focusing on the actual environmental impacts generated by the operation of the project, prompting relevant personnel of the enterprise to pay attention to the environmental problems of the project [10].

5. CONCLUSION

Through the comparative analysis of the above aspects, it can be concluded that the EIPPA and EIA have many similarities and differences in terms of theoretical content, applicable objects, working procedures, functions and meanings. But both are organic components of the EIA system, and the two all serve the whole process evaluation and management of the environmental impact of the construction project. Since the EIPPA, is carried out on the basis of comprehensive environmental impact assessment work to a certain extent, the two have a link between the two in terms of work content, but it is precisely because of the mutual complementarity and mutual promotion between the two. Only then will the two promote the continuous enrichment and improvement of the environmental impact assessment system.

With the continuous improvement and attention of China's environmental impact assessment system, the EIPPA of construction projects is gradually being carried out. Combined with the current investigation of VOCs pollution sources of petrochemical-related enterprises, EIPPA is related to petrochemical enterprises should also be based on the project's VOCs pollution source investigation, testing and other work. Then calculate the emission of VOCs, and propose corresponding improvement measures and suggestions for the shortcomings of VOCs accounting, management and control.

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