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**ACE Paper 2/2022**  
***For discussion on 7 March 2022***

**Optimising the  
Environmental Impact Assessment Ordinance Process**

**PURPOSE**

The Chief Executive has announced in the 2021 Policy Address that the Environment Bureau will conduct a review on the environmental impact assessment (EIA) process stipulated under the Environmental Impact Assessment Ordinance (EIAO). This paper serves to brief Members on our work plan for the review and seek Members' advice.

**BACKGROUND**

2. The purpose of the EIAO, which came into operation in 1998, is to avoid, minimise and control the adverse impact on the environment of designated projects (DPs) through the application of the statutory EIA process and the environmental permit (EP) mechanism. The EIAO serves as an essential platform for striking a balance between the need of environmental protection and development. For major projects, EIA studies are conducted as the fundamental step to provide the information and data required for their specific design.

3. The EIAO has been implemented in Hong Kong for over two decades with much experience gained. Despite the Environmental Protection Department (EPD) has reviewed and refined the operation of EIA mechanism from time to time, it is time to conduct a review for further enhancement to the EIA mechanism, with a view to optimising its process, enhancing its operational efficiency and focusing more on environmental outcomes.

## **OBJECTIVES OF THE REVIEW**

4. On the implementation of the EIAO, the majority feedback is that it takes too long to complete EIA studies. For complicated or controversial projects, it is not uncommon that the EIA process might take three to four years or even more. There are suggestions that it is desirable if the completion time for EIA process can be optimised to around 18 months for typical projects and about 24 months for major or complicated projects. EIA studies can also be conducted in tandem with the detailed design of projects. Such arrangement will not only help protect the environment but also provide the information and data required for the specific design of projects without impeding project delivery.

5. In addition, there are views that certain criteria and guidelines for EIA studies are not clear or specific enough. In some cases, project proponents and their consultants may not be able to grasp the key environmental issues to be addressed at an earlier stage of project planning or during their EIA studies, hence have spent more time on completing the EIA process. As the times change, certain DPs under the EIAO may become outdated and new DPs should be added. Moreover, we will take this review as an opportunity to introduce the development of smart platforms and big data analysis into the EIA process, and to rationalise the inter-relationships between the EIAO and other legislation to avoid overlapping the statutory control measures concerned.

## **PROPOSALS FOR THE REVIEW**

### Centralised Environmental Database

6. Based on the Geographical Information System (GIS), we plan to develop an open Centralised Environmental Database (CED). The CED will encompass all environmental data, including information on ecology and other environmental aspects from the EIA studies and the Government. The data can therefore be used or for reference by consultants in conducting EIA studies, as well as for research and learning purposes by academics and members of the public. The CED will facilitate the project proponents and their consultants in project planning and the EIA studies, hence enhancing efficiency and saving time. Furthermore, to ensure the quality of the EIA studies and the credibility of the data collected, we would study on the requirement that certain part of the assessment to be duly prepared and signed by qualified persons.

### Ecological and Fisheries Impact Assessments

7. Having reviewed the previous EIA studies, we observed that the time required to conduct the ecological impact assessment is comparatively lengthy. Ecological impact assessment often requires ecological baseline surveys that last for six to twelve months, covering both the dry and wet seasons as appropriate. Previously, consultants can only draw up their plans for ecological baseline survey

when they receive the EIA study briefs issued by the EPD. They will then submit their plans to the EPD and the Agriculture, Fisheries and Conservation Department (AFCD) for agreement before conducting the baseline surveys in suitable seasons according to the approved plans. This process, i.e. from submitting a project profile to apply for an EIA study brief to the completion of the ecological baseline survey concerned, may take nearly two years. If supplementary surveys are needed due to changes on the project details, the time required may even be longer.

8. With over two decades of experience on EIA studies, we have a better grasp of how to properly conduct ecological baseline surveys. We believe that by consolidating the experience gained in previous EIA studies, we can standardise the requirements of ecological baseline survey, covering the methods, frequencies and durations required for conducting the survey for different types of ecological systems. To expedite the ecological impact assessment, AFCD could provide advice as appropriate to project proponents before applying for an EIA study brief. This will enable project proponents and their consultants to conduct ecological baseline surveys according to the nature and location of their projects at the early stage of project planning, even before the issuance of EIA study brief by the EPD. In this way, the time spent on ecological baseline survey can be largely reduced. We will also review the ecological impact assessment criteria to bring in the regional ecological assessment concept as appropriate, so that the ecological impact arising from the project can be examined in a more holistic manner. Moreover, we plan to incorporate the information collected from ecological baseline surveys into the CED progressively, with a view to facilitating the development of a territory-wide ecological database as well as for streamlining future EIA studies.

9. Though fisheries impact assessment usually takes less time than ecological impact assessment, we plan to review the process involved by adopting the approaches mentioned above, i.e. standardising requirements, reviewing assessment criteria and incorporating data into the CED.

#### Air Quality Assessment

10. Conducting the air quality assessment in an EIA study can also be time-consuming. Given that accurate modelling of air quality is a complex scientific task, the EPD has developed a sophisticated “Pollutants in the Atmosphere and their Transport over Hong Kong” (PATH) model for use in EIA studies. That said, to have air quality models run precisely, consultants may need several months to prepare the input data. Even if a supercomputer is used, it may take several weeks to complete the air quality modelling run for just one scenario. If the design or operation of a project requires comparison of several scenarios, the time taken solely for air quality modelling can be as long as one to two years, as seen in previous cases.

11. To tackle the above issue, the EPD is planning to carry out territory-wide air quality baseline model runs and publish the results via the CED on a time series. Consultants may then simply run the localised air pollution dispersion models and overlay onto the PATH model results provided by the EPD. This will significantly

reduce the time needed and ensure the quality of air quality assessment. As for construction dust impacts, we intend to adopt the requirements under the Air Pollution Control (Construction Dust) Regulation and publish standardised practices and monitoring requirements for reference by consultants to obviate the need for construction dust modelling.

### Noise Impact Assessment

12. The EPD will consider developing web-based noise impact assessment models to facilitate noise modelling, and exploring the standardisation of successful noise mitigation measures such as provision of noise barriers and acoustic windows and have them promulgated, via the CED, for sharing with consultants. In view of the fact that quieter construction methods have been widely adopted nowadays, we will develop standard requirements and mitigation measures such that consultants may make reference to these standardised requirements in lieu of carrying out a detailed construction noise assessment.

### Water Quality Assessment

13. Through upgrading the sewage treatment works over the past few years, the total pollution loading in various districts has been substantially reduced, as reflected by the improvement of water quality since the 1980s. With the experience and knowledge gained in the past, we will standardise the water quality modelling requirements and assessment approaches by making reference to the sewage treatment levels, such as chemically enhanced primary treatment (CEPT) as well as secondary, secondary-plus and tertiary treatment. To facilitate water quality modelling and assessment, the EPD plans to adopt the same approach as in air quality assessment, i.e. publishing via the CED the baseline data related to water quality and discharges on a time series for use by consultants.

### Land Contamination and Hazard Assessments

14. We intend to standardise the scopes and durations required for land contamination surveys, and establish clear guidelines on land contamination assessment and mitigation measures by adopting the “exposure-pathway-receptor” model. Moreover, given the high background level of some heavy metals (e.g. arsenic) in the land within the territory, we will review the remediation standards and mitigation measures required by making reference to previous EIA studies. We also plan to make available, via the CED, background risk contours across the territory to help consultants carry out hazard assessment. For example, with on-site generation of chlorination replacing on-site storage of chlorine gas, hazard assessment can be waived for water treatment works.

### Landscape and Visual Impact Assessment (LVIA)

15. With assistance from the Planning Department and based on previous experience, the EPD will review the existing scopes of assessment with a view to

identifying and formulating criteria for projects not requiring landscape and/or visual impact assessments under EIA studies. Besides, we will explore various ways to facilitate LVIA preparations, e.g. to optimise the assessment methodology by reviewing and amending the respective criteria and guidelines laid down in the Technical Memorandum on the EIA Process, and to share with project proponents and their consultants practical examples of successful mitigation measures identified in previous assessments.

### Cultural Heritage Impact Assessment

16. We propose to develop a GIS-database on sites of archaeological interests by making reference to previous EIA findings, research results and data available. Based on past experience, the EPD will also liaise with the Antiquities and Monuments Office to develop more specific guidelines on the needs and requirements in carrying out cultural heritage impact assessment, and prepare briefs on practical and effective mitigation measures for future reference.

### List of DPs

17. With technological advancement and experience gained over the years, it is time for a review of the list of DPs. We will examine the need to add, delete or amend the list of DPs. For example, we will consider adding hydrogen storage facilities to and deleting sewage pumping stations from the list. We will also consider giving exemptions to essential facilities, e.g. helipads used for firefighting, hospital, police, national security and other life-saving and emergency purposes.

## **STAKEHOLDER ENGAGEMENT**

18. The EPD will proactively engage stakeholders in the review exercise. Apart from consulting this Council and the Legislative Council Panel on Environmental Affairs, we will organise stakeholder engagement activities, including focus group meetings and public fora, to collect views from the public and stakeholders including the academia, professional bodies, green groups and relevant government bureaux and departments.

## **ADVICE SOUGHT**

19. We aim at completing the review in 2022 and will consult this Council again on the final recommendations of the review. Members are invited to note the above proposals in optimising the statutory process under the EIAO.

**Environment Bureau  
Environmental Protection Department  
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