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## SHIFT TOWARDS A PUBLIC EXPECTATION ORIENTED EIA

### ABSTRACT

Turning Environmental Impact Assessment (EIA) from an administrative into a statutory process is usually taken as a key indicator for advance development of EIA system in a place. In Hong Kong, the EIA Ordinance was enacted in 1997 and has been applied to designated projects that might have adverse impact on the environment, in particular for major infrastructure projects. Bundled with the coercive powers under a statutory EIA process is the right for the public to initiate judicial proceedings against the decisions made by the authority. Some recent cases in Hong Kong, e.g. the US\$7.5 billion Hongkong-Zhuhai-Macao Bridge project, were challenged in courts, causing delay to projects, economic losses and social resentment. This paper presents the existing EIA system in Hong Kong and describes its effectiveness for public understanding of how decisions are made throughout the EIA process.

### OVERVIEW OF EIA LEGAL SYSTEM IN HONG KONG

Hong Kong, with 1104 square kilometers of land of which over 500 square kilometers are designated as protected areas<sup>1</sup>, is home to some seven million people. Its steep mountains allow only 263 square kilometers on which people live and work. Strict control over urban development is, therefore, imperative.

The Environmental Protection Department (EPD) of the Hong Kong Special Administrative Region Government has a responsibility for protecting the environment and the community as a whole. EPD implements environmental protection legislation and policy and manages environmental impact assessment in the planning of new developments and major projects. In January 1997, the Hong Kong Environmental Impact Assessment Ordinance (EIAO) was enacted and a legal and technical instrument, the Technical Memorandum on EIA Process<sup>2</sup>, was promulgated. Under the EIAO, proposed activities which are likely to have adverse impacts on the environment are regarded as designated projects (DPs)<sup>3</sup>. The EIA Ordinance provides the legal framework for applying the EIA process to these designated projects and makes the recommendations in the EIA legally enforceable through an Environmental Permit (EP). Between April 1998 and December 2012, there were 168 EIA reports approved under the statutory process, 204 permissions were granted for direct environmental permit applications and over 900 environmental permits were issued.

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<sup>1</sup> According to the Hong Kong Year Book 2011, the protected areas include country parks, special areas and conservation zones.

<sup>2</sup> The EIAO-TM has its purpose to give clear technical guidelines and criteria for assessing the environmental impacts of a designated project and guide the Director of Environmental Protection Department in making key decisions on the EIA process.

<sup>3</sup> These DPs are classified into two categories under the EIAO: Schedule 2 and Schedule 3: The former (e.g., roads, railway, decommissioning of an oil refinery, etc) must follow the statutory EIA process and require environmental permits for their construction and operation, while the latter (e.g., major engineering feasibility studies of urban development project) are required to submit EIA reports for approval but will not require environmental permits.

EPD is the designated agency to enforce the EIAO. Under the Ordinance, the Director of the EPD shall take advice from other relevant authorities<sup>4</sup> on certain matters (e.g. ecological or human health matters). Once the project proponent has submitted a project profile or an EIA report, EPD shall assume the role of managing the EIA process, including the scoping and review. During the scoping stage, EPD will decide the scope of the EIA report by issuing an EIA Study Brief to the project proponent. During the review stage, EPD will review and make decisions on whether to approve the EIA report prepared by the project proponent. One of the key features of the EIA system in Hong Kong is the issuance of environmental permits to ascertain that the EIA recommendations will be implemented during the construction and operational stages of the projects. In some cases, the conditions will also include requirements for environmental monitoring audits provisions, and requirements for professional independent auditors.

### **EFFECTIVENESS OF THE LEGAL EIA FRAMEWORK IN DECISION-MAKING**

In Hong Kong, the legal EIA system is one of the effective planning tools for assessing environmental impacts and identifying mitigation measures of a project. It also provides a transparent and systematic framework that enables effective and informed decision making. Under the EIA Ordinance, the public is given opportunity to contribute to the EIA study scope and to comment on the EIA findings. The law also formalizes the consultation arrangement with an independent Advisory Council on the Environment<sup>5</sup> (ACE) appointed by the Government. EPD is required to give due regards to comments from the public and the ACE when making decisions on EIA matters. Public participation means that the public's contribution can influence decision.

Secondly, with more than 15 years of good EIA practices and experiences, the legal EIA system has contributed positively to environmental awareness of project proponents. The extent can be seen in the EIA study, with an increasing awareness of project proponent in adopting an appropriate alternative from an environmental perspective or to adjust the project in order to reduce environmental impact. For example, EIAs for large infrastructure projects, the project proponents will take into account the existence of any significant environmental and ecological resources and select alternative(s) for the alignment so as to avoid and minimize impacts to these areas. With the documentation of consideration of alternatives in the EIA report, public and other interested stakeholders will be able to review the selection process and raise their comments effectively during public consultation.

### **JUDICIAL REVIEW ON THE EIA REPORT OF THE HONG KONG-ZHUHAI-MACAO BRIDGE**

The Hong Kong – Zhuhai – Macao Bridge (HZMB), being situated at the waters of the Pearl River Estuary, is a large sea crossing linking the Hong Kong Special Administrative Region, Zhuhai City of Guangdong Province and Macao Special Administrative Region. It is a cross-boundary project and consists of a Main Bridge in mainland waters together with the boundary crossing facilities and links roads within Hong Kong, Zhuhai and Macao areas. The project include 29.6 km dual 3-lane carriageway in the form of bridge-cum-tunnel structure comprising a tunnel of about 6.7 km; two artificial islands for the tunnel landings west of the Hong Kong boundary; and associated works<sup>6</sup>. Construction of the HZMB Main Bridge commenced in December 2009.

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<sup>4</sup> Other relevant authorities include the Director of the Agricultural, Fisheries and Conservation Department on nature conservation and ecological assessment; advice from Director of Health on human health matters etc.

<sup>5</sup> EIAO formalizes past arrangements for consultation with the Hong Kong Government's appointed Advisory Council on the Environment, which is a body includes members of environmental advocacy groups, representatives of industrial organizations, academics, and professionals.

<sup>6</sup> The associated works include civil and structural works, environmental mitigation, drainage, electrical and mechanical, traffic control and surveillance system,

As required under the EIAO, EIA reports were prepared for the HZMB projects within Hong Kong boundary by the consultants retained by the Highways Department. The EIA reports were approved and the related environmental permits<sup>7</sup> were issued in October and November 2009 respectively. On 22 January 2010, a citizen from Hong Kong filed a judicial review (JR) on the decisions of EPD in approving the EIA reports relating to the HZMB projects; and in granting the environmental permits for the construction and operation of the said projects. On 18 April 2011, the Court of First Instance (CFI) handed down a judgment which rejected six of the seven contentions<sup>8</sup> proposed by the applicant. However, the Court held that apart from assessing the cumulative environmental impacts caused by the designated projects, the EIA report should compare the environmental impacts of the scenarios with and without the project in place in order to assess the direct impact of the project and propose relevant mitigation measures to minimize the environmental impact to the satisfaction of the authority. Because of the absence of a quantitative “stand-alone” analysis of the projected environmental conditions without the projects in place in the EIA reports, EPD’s said decisions to approve the EIA reports were quashed. On 13 May 2011, EPD then lodged an appeal against the CFI judgment. The appeal was heard from 23-25 August 2011 and the Court of Appeal (CA) handed down a judgment on 27 September 2011 which allowed the Director’s appeal. The CA’s judgment held that the current Technical Memorandum on the EIA Process and study briefs on the HZMB Bridge projects have requirements for the project proponent “to minimise pollution” and there was no suggestion that a stand-alone assessment was necessary. Consequently, the Director’s decisions to approve the EIA reports and to grant the related EPs (which had previously quashed by the CFI) were restored. As a result of the legal proceedings, the commencement date for the projects was delayed for about 2 years and an estimated direct economic loss to the Hong Kong Government of US\$ 1 billion.

The complainant in the HZMB JR case, who was supported by a team of professionals including lawyers, environmental consultants, and academics, pointed to a wide range of issues in the EIA reports and criticized them in detail. Their arguments reflect that the public nowadays is not always satisfied with a simple conclusion of “no unacceptable environmental consequences” in the EIA report. Instead, they inquire into the basic assumptions, methodologies and approaches, scientific basis, international practice, interpretation of the legal provisions or even the details of mathematical models adopted. The EIA report for HZMB is not the first one that was challenged in court in Hong Kong. It is increasingly apparent that there is a gap between what the EIA reports has provided and what the public has expected. Amongst the environmental and resident groups, they see the Hong Kong EIAs have lost credibility in the recent years and are being increasingly perceived as biased “public relations” documents mainly to justify the going ahead of the project. Though the EIAO has provided for public inspection of EIA reports before their approval to collect views and comments from the public and make sure that relevant comments could be properly addressed, the HZMB JR case boldly revealed that simply exhibited a technical report in a passive way might not serve the intended purpose. This arises partly because the public expects that an EIA should be an objective scientific report and not simply a supporting document required under the legal procedure for gaining approval for a project.

Another key observation from the HZMB JR case is that there seems to be non-alignment of the understanding on some terms commonly used in EIA reports, even amongst the EIA practitioners. For instance, one of the contentions evolved around whether the EIA report has included the “stand alone analysis”, which is, as referred to in the complainant’s

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<sup>7</sup> Under the Hong Kong EIA Ordinance, an environmental permit is required for the construction and operation of a designated projects defined in Schedules 2 and 3 of the Ordinance.

<sup>8</sup> The Applicant raised 7 issues to support her judicial application. The 7 issues are:-  
(i) the absence of a stand alone analysis in the EIA Reports,  
(ii) the lack of presentation of input data in PATH model used in the assessment of air quality,  
(iii) the choice of 2031 as reasonably worst case scenario,  
(iv) failure to assess ozone,  
(v) failure to assess sulphur dioxide,  
(vi) lack of an assessment of the projects’ impact on public health, and  
(vii) lack of an assessment of the health risk posed by pollutants outside Air Quality Objectives (AQOs) such as toxic air pollutants (TAPs) and fine suspended particulates (PM 2.5).

submissions, is the projected environmental conditions in the assessment year without the projects in place. Yet, some of the EIA practitioners confused “stand alone analysis” with the baseline study and suggested that future EIA reports should include the requirements for a baseline study. In fact, such requirement has already been clearly stated in the EIA study briefs and in the Technical Memorandum issued under the EIA Ordinance.

In Hong Kong, public consultation is further complicated by the languages used. Both Chinese and English are the official languages acceptable for preparing EIA reports. Because most of the EIA reports are rather technical and prepared by international consultancy firms, almost all of them are written in English. There were a number of complaints during the public inspection of the HZMB EIA reports that the choice of language has deprived the public from understanding the contents of EIA reports and their rights to raise comments. While under the current framework an executive summary of the EIA report will be prepared, both in Chinese and English, to summarize the key findings of the EIA study, the details in the executive summary are far from that expected by the readers.

In summary, the HZMB JR case highlighted the need to review the efficiency and effectiveness of the current mode of consultation. How could we strike a balance between the technical substances with the size of an EIA report? How could the key findings of an EIA report be clearly conveyed and readily understood by most of the public? What could we do to make sure that the EIA practitioners are aligned so that a clear message could be passed to the public when compiling the EIA reports?

### **ENHANCING EIA CREDITIBILITY AND PUBLIC UNDERSTANDING OF EIA DECISION MAKING**

EIA is regarded as an objective scientific approach to assess impacts arising from a project as the Technical Memorandum on EIA Process has its purpose to give clear technical guidelines and criteria for assessing the environmental impacts of a designated project and guide EPD in making key decisions on the EIA process. The transparency of the EIA system in Hong Kong has also greatly enhanced the public involvement process since the enactment of the law over the past 15 years. It is often argued by some EIA practitioners that the EIA process has built in checks against bias and distortion because the EIA is subject to public scrutiny when it is exhibited and it is then assessed by government authorities in accordance with the requirements stipulated in the Technical Memorandum on EIA Process and the study briefs. In contrary, the environmental and resident groups frequently criticize the process and quality of assessment because they have not been consulted or engaged at an early stage.

In view of continuous increase in public demand for better EIA quality, EPD has been drawing on its experience with past EIA, public comments, and feedbacks from judiciary on court cases, to critically review the EIA process. The outcomes of such reviews are disseminated to stakeholders in a form of knowledge sharing through four EIAO Users Liaison Groups, with representatives from different sectors focusing on government departments and bureaux, consultants, private and public developers, and contractors. Recommendations from the review process will be incorporated in new EIA study briefs and EPD will also publish relevant guidance documents for this purpose. The key point is that when knowledge is shared, trust could be maintained to helping to provide a more conducive decision environment, where the proponent and authority are also willing to receive and incorporate such new knowledge into their decision-making. Enhancing mutual trust takes time and resources and needs to be established at early stage of planning. It also requires a high degree of commitment, openness and flexibility by the proponents. Mutual trust can be seen as catalyst in a chemical reaction - it may require some efforts to make it to effect but once it starts to function, it would surely facilitate the entire process. It is surely a vital factor for success in an EIA process and in environmental and sustainability oriented decision making.

There are also ways in which an EIA can be shaped to make it more transparent to the reader. To demonstrate that the conclusions in the report are logical and justified, an EIA should incorporate discussion of assumptions, need of the project, choice of methods and different interpretations that can be made of the studies. The project proponent may consider having their project and considerations given to minimize the associated environmental implications made publicly available for public consultation before the formal submission under the legal framework. There is also a call for mindset change that EIA should not be considered as hindrance to fast implementation of projects. EIA can be regarded as an effective tool or instrument for consensus building, to improve project design and to prevent subsequent legal challenges by providing a platform for stakeholders to voice out their concerns. It is crucial that stakeholders can see how their input might be valued

and considered as opposed to rejected or ignored. Proponents should not treat contrasting views as barriers to decision making, instead they should be taken as advice to optimize designs and enhance decisions.

For large infrastructure projects, effective communication at early stages in the project cycle with the civil societies on the project agenda is critical. Ideally, such communication shall be achieved by a joint initiative by the project proponent and EIA consultant. Apart from disseminating information regarding the broad design, necessity, and potential impacts of the project, the EIA consultants should bridge the communication at this stage with the preparation of the Terms of References (ToR) for the EIA report, which also takes the form of Table of Contents, Inception Report depending on the specific needs of a project.

Good practices in projects financed by the World Bank confirm the importance of adequate consultation with interest groups on the ToR of the EIA report to reach an agreement on the content and, when necessary, format of the final products of the environmental assessment. At this stage, the objective of the consultation should include, *inter alia*, to ascertain the scope of the EIA, clarify the priority issues to be assessed, meanings of the key terms to be used in the report, and perhaps the available resource for the development and implementation of mitigation measures. Clearly, some of the issues raised by the complainant in the case of HZMB project could have been addressed at earlier stages during the EIA process; the high cost, and even the necessity, of later litigation could have been avoided. Even if the content of an EIA report is detailed by regulations, affirmative consultations - as opposed to passively placing the document at designated locations or websites for review - is still needed to ensure that the interested groups share a common understanding of the scope of the EIA report as mandated by the law.

A Public Consultation Plan should be prepared at the outset of the EIA process for large infrastructure projects with significant environmental and social impacts. For instance, such a consultation strategy/plan is required for Bank-financed projects that are Category A. A continuous and effective consultation process takes various forms and detailed prescription by step is of little practical use. However, there is no dearth of sound principles that EIA consultants should consider in mapping out a consultation plan. Other than the specific communicative techniques (e.g., be culturally sensitive, offer due consideration for historical context, aligning diverse interests), the guideposts for reviewing the adequacy of a consultation plan should at least include (a) phasing and timing of the consultation activities; (b) adequate budget for implementing the plan; and (c) clearly defined responsibility for implementation.

## **CONCLUSION**

Majority of the EIA stakeholders are positive on the legal EIA system in Hong Kong but are critical about quality of the EIA report. The key challenges that the EIA system in Hong Kong are facing are how the legal EIA practice manages to continue without being destabilized by conflict and what can be done to enhance the effectiveness of EIA to help smoothing out and removing conflict from decision making. Efforts are required on increasing or enhancing environmental awareness in project proponents to ensure that environmental values are fully considered in the decision making. We should not treat contrasting views of EIA as a barrier to decision making, instead we should manage them to enhance the outcome of the decision made.

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