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Strategic environmental assessment in Hong Kong

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Abstract

This review examines the development and application of strategic environmental assessment (SEA) process in the planning framework of Hong Kong. Two strategic planning case studies are evaluated within the context of SEA, namely the Territorial Development Strategy Review (TDS Review) and the Third Comprehensive Transport Study (CTS-3). Rapid population growth and urbanisation in Hong Kong, coupled with a historic lack of planning controls and inherent conflicts between government departments have been major obstacles to achieving sustainable development in the territory. Despite these challenges, Hong Kong was one of the first Asian countries to apply SEA to major development plans, where the implementation of the 'SUSDEV 21' study on sustainable development has demonstrated the government's commitment towards integrated environmental protection. The application of SEA has provided decision-makers with key information on potential environment impacts arising from proposed developments, resulting in greater accountability and transparency in the decision-making process. SEA in Hong Kong has also prompted an increased level of environmental awareness and co-operation between government departments and agencies responsible for the management of Hong Kong's natural and urban environments. However, the application of SEA in Hong Kong continues to have notable limitations. SEA needs to evolve beyond its current sectoral application to examine ways in which development decisions can not only pre-empt and prevent environmental damage, but also positively enhance and restore existing natural resources. Current land use plans and transportation strategies still largely determine the pattern of development in the near future without adequate longer-term environmental cost–benefit analysis. Sustainable development includes environmental, social and economic considerations, and these inter-related elements need be suitably balanced. SEA is not a means to obstruct development in Hong Kong, but should be recognised for its inherent socio-economic and ecological value, and fully integrated with the decision-making process. Whilst it is admirable that Hong Kong has taken positive steps in this direction, it is now an opportune moment for the government to have the foresight and tenacity to create a sustainable development framework for Hong Kong into the future.

Keywords: Strategic environmental assessment; Hong Kong; Cost–benefit analysis

1. Introduction

The Hong Kong Special Administrative Region (HKSAR), China, has an advanced economy with a population of 7 million people within a confined total land area of 1098 km^2 (see Fig. 1). This results in Hong Kong being one of the mostly densely crowded places on Earth (6375 persons per km^2, 2002). Despite Hong Kong's capitalist economy and overcrowded conditions, it retains a diversity of ecological habitats due to its geographical location, being at the boundary of the tropical and temperate climatic zones. Physical and climatic conditions combine to produce a variety of marine and terrestrial habitats of significant scientific and conservation interest. Throughout the territory's history, urban development has been in conflict with the natural environment and, as a consequence, the local ecology has undergone drastic perturbation.

Strategic environmental assessment (SEA) is a tool intended to evaluate the impact of development plans, policies and programs (PPPs) at an early stage in the overall planning process (Fisher, 2003; Tonk and Verheem, 2000; Noble, 2000; Dalal-Clayton and Sadler, 1999). When properly implemented, SEA is deemed to have distinct advantages compared to project-based environment impact

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Fig. 1. Geographical location of the Hong Kong Special Administrative Region.

assessment (EIA) which does not always fully account for cumulative environmental impacts of multiple developments, and often fails to adequately evaluate alternative development scenarios (Noble, 2000; Partidario and Clark, 2000). Sustainable development is a process that occurs over time and involves many parties, including a diversity of government departments, business and community interest groups. It does not result from a single new policy or plan, but requires a cross-sectoral approach, taking into account of social and environmental constraints, when evaluating development PPPs. SEA is designed to ensure the environmental integrity of a country's PPP in order to achieve a more sustainable approach to development. A well-designed SEA strategy should be able to incorporate sustainability criteria throughout the planning process (Partidario, 2000), where the core principles of sustainability are transferred from policy level to individual projects (Arce and Gullón, 2000). With this lofty objective in mind, SEA has gained widespread acceptability as a supporting tool for decision making in planning policy frameworks (Noble, 2002).

The application of SEA in land use planning and development projects in Hong Kong has been adopted by the government in an attempt to prevent the integrity of the environment being unacceptably compromised by urban development. SEA procedures are now well established, where the application of SEA to plans and strategies in Hong Kong commenced as far back as 1988. In this manuscript, we evaluate the development and implementation of SEA in Hong Kong with regard to two strategic planning case studies, namely the Territorial Development Strategy Review (TDS Review) and the Third Comprehensive Transport Study (CTS-3). After a review of the environmental assessment process and background to sustainable development strategies in Hong Kong, the case studies are evaluated with regard to the current successes and shortcomings of SEA. Recommendations for improving the overall integration of SEA into the overall planning process of Hong Kong are provided.

1.1. Development and current status of environmental assessment in Hong Kong

1.1.1. Environmental impact assessment ordinance (EIAO)

Hong Kong already has more than 16 years of practical experience of the application of environmental assessment to development projects, and has generated in excess of 500 EIA reports for a multitude of different types of projects and planning proposals. The EIAO came into effect on 1st April 1998 and was formulated to avoid, minimise and control the adverse environmental impacts of development projects. The public, and the Advisory Council on the Environment (ACE), comprising of representatives from industries, professionals, academics, green groups and other independent members, are involved at various stages of the EIA process to ensure transparency and independent evaluation of development proposals. The EIAO has facilitated public access to, and public participation in, the EIA process through the exhibition of project profiles and EIA reports at locations accessible to the public including the Internet, the establishment of a public register of proposed development projects (EIAO web site, 2002). Since the implementation of the EIAO, the Environmental Protection Department (EPD) has implemented a series of actions to promote better understanding of the EIA process among different stakeholders.

In theory, proper implementation of the recommendations of the EIA process leads to more environmentally benign projects with tangible benefits for socioeconomic development (Wood, 2003). However, project-level EIA is often insufficient as a mechanism to attain these goals, as the measures implemented only evaluate and mitigate environmental impacts at the downstream project-planning level. As the emphasis of the EIA procedure is on the identification of impacts from development proposals rather anticipating them at the macro-planning level, it is not always possible for the EIA procedure to prevent development that constitute a net deterioration of environmental quality. It is normal for the EIA process to only take place after strategic planning decisions for a region or sector have already been instigated, meaning that a planning details for infrastructure and sector developments may have already been drawn up, quite specifically, with irreversible decisions taken by the time an EIA is endorsed. This leaves limited scope for the identification of viable development alternatives. Assessment of indirect, induced and cumulative environmental impacts are often absent from the EIA procedure, and there can be a lack of detailed analysis of project alternatives, including the 'no development' scenario.