

Roles of ESG and EIA in preserving biodiversity – a case study in Hong Kong

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Abstract

According to World Economic Forum's The Global Risks Report 2022, biodiversity loss is the third global server risk over the next decade. Biodiversity provides resilience, and allowing nature to absorb small shocks and avoid immensely irreversible changes. Over half of global GDP is dependent on high functioning biodiversity and ecosystem services ^[1], meaning that protecting biodiversity is as relevant as protecting our prosperity. Under mandatory ESG reporting requirements in Hong Kong, more corporate-based environment and natural resources information have been disclosed. However, they are now facing the challenge of analysing their impacts on the ecosystem. Can EIA fill the gap? This presentation will discuss the differences in roles of ESG and EIA in helping businesses to meet biodiversity goals. Overlaps and opportunities of ESG and EIA will be discussed through a case study of Hong Kong's Mass Transit Railway (MTR) management of the high biodiversity Lok Ma Chau wetland. This case shed light on the synergy between EIA's impact management and ESG's risk management to strengthen resilience of the ecosystem. Furthermore, this has promoted opportunities in innovative solution to preserve biodiversity. It is concluded that both ESG and EIA provide various opportunities in halting the biodiversity crisis by providing both forward- and backward-looking insights. While both ESG and EIA can help manage biodiversity loss risk, potential improvement can be achieved through the use of more precise data and models to better evaluate the risks and opportunities for and from nature.

Introduction

Climate change is well known as one of the most pressing global challenges of our time, and its impacts are felt across a wide range of ecosystems and species. One of the most significant consequences of climate change is the loss of biodiversity, which occurs mainly as a result of humans' use of land ^[2]. Biodiversity loss has far-reaching consequences, including the loss of critical ecosystem services, the reduction of genetic diversity, and the decline of species populations.

The threat of biodiversity loss is as critical as the emerging climate risks due to their interconnected relationship as describe by Elizabeth Mrema (2022), "*Climate change is a primary driver of biodiversity loss. And climate change depends on biodiversity as part of the solution. So clearly the two are linked, and cannot be separated.*" ^[3] To address the importance of biodiversity conservation, United Nations Sustainable Development (UN SDG) Goal 15 Life on land is set to devote to halt and reverse land degradation and halt biodiversity loss ^[4].

With potentially profound consequences for human societies and ecosystems, assessing the risk of biodiversity loss induced from business activities are made mandatory in various regulatory requirements including Hong Kong. Addressing the biodiversity risk requires a comprehensive and integrated approach to allow companies to assess and manage their impact on biodiversity. In view of this, both Environmental, Social, and Governance (ESG) Reporting and Environmental Impact Assessment (EIA) process in Hong

Kong are essential tools and framework that can help companies to achieve their biodiversity conservation goals to support SDG Goal 15 in a responsible and sustainable manner.

Roles of ESG on Biodiversity in Hong Kong

To keep track with the global sustainability development target, ESG reporting requirements have been made mandatory by the The Stock Exchange of Hong Kong Limited (HKEX) since 2019, all listed companies in Hong Kong are required to submit and disclose their performance of ESG factors and KPIs for public inspection. Sustainability-related information under ESG is reported through corporate's sustainability reports to comply with the regulatory and disclosure requirement listed under Appendix 27 - Environmental, Social and Governance Reporting Guide of HKEX's Main Board Listing Rules. Among various requirements, companies are required to describe and evaluate their overall impacts on the environment and natural resources, including but not limited to biodiversity, under Aspect A3 ^[5]. Stakeholder engagement, policies and measures adopted to manage these impacts are also reported under such requirement.

In the context of managing biodiversity loss risk, ESG helps business to build resilience and competitiveness by urging efficient resources allocation for biodiversity-friendly practices and investor attractions for access to financing on ecological restoration projects in a macro-management perspective. The ESG criteria in Hong Kong enforce corporate to review their performance in biodiversity conservation regularly, including performances in protection of endangered species, sustainable land use practices, and the preservation of ecosystems. Since then, increasing numbers of companies in Hong Kong have been improving the transparency and granularity of the information disclosed. ^[6] This serves as a regulatory pressure to incentivize companies to ensure that environmental factors related to biodiversity conservation is prioritized and integrated in companies' strategy and operations, so as to minimize potential reputational risks and to strengthen their competitive advantage in the market. Such backward-looking insights help companies for benchmarking their performances with competitors in the industry and allowing fine tuning of their internal processes, group policies and future plans on ecological conservation in supporting and contributing to the global biodiversity goal. Ultimately allows integration of biodiversity-related risks and considerations into their financial analysis and investments decision as non-financial information for better resources and capital allocation to capture a broader view of the company's long-term potential.

Furthermore, with the growing market interest in ESG performance, mandatory disclosure of ESG data in Hong Kong allow investors and stakeholders to evaluate and compare the environmental and sustainability performance of their concerned companies. Companies with proactive engagements on ESG and better ESG profile can attract investors, who has similar values on biodiversity risk management, to finance their conservation projects by the means of loan and refinancing. Not only can ESG aid companies better prepare for the future risk of biodiversity loss, but it also helps them to transit and to be in line with the direction of the nature-positive economy.

Roles of EIA on Biodiversity in Hong Kong

To assist better decision making, the EIA process has been made statutory under the EIA Ordinance (EIAO) since 1998 ^[7]. As a proactive planning tool, the Ordinance provide instructions for assessing the impact on the environment, including ecological and biodiversity impacts, of certain projects and proposals for protecting the environment and for incidental matters. Potential impacts on ecology and biodiversity are required to be assessed by Project Proponent under the section of Ecological Impact Assessment (EcoIA)

in accordance with Annex 16 – Guidelines for Ecological Assessment of EIA Technical Memorandum. A broad approach on EcoIA is shown in *Figure 1*.



Figure 1 Broad approach of Ecological Impact Assessment

According to the general principal, Project Proponent are obligated to provide sufficient and adequate ecological data to allow a clear and robust identification, prediction and evaluation through literature review and ecological baseline surveys with reference to various international treaties and convention such as RAMSAR, CITES and IUCN Red List ^[8]. With appropriate mitigation measure following the mitigation hierarchy as shown in *Figure 2* and monitoring plan proposed to manage these impacts are also reported under this practice.

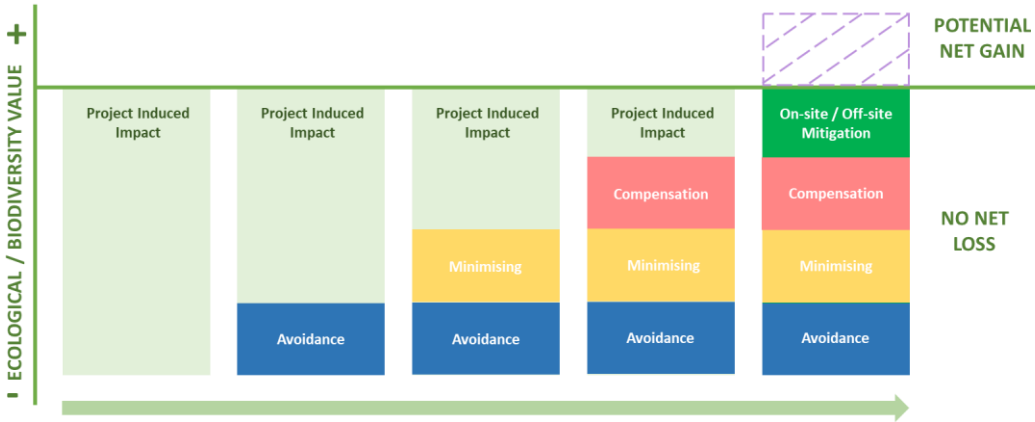


Figure 2 Mitigation hierarchy in Hong Kong Ecological Impact Assessment

In consideration of potential biodiversity loss risk, EIA helps business to ensure their proposed projects are execute in a way that do no significant harm to the ecosystem by providing baseline information, identifying, and evaluating potential environmental impacts and developing strategies to avoid or mitigate ecological impacts through stakeholder engagement in a micro-management perspective. The EIA process in Hong Kong requires business, as a Project Proponent, to integrate potential ecological and biodiversity loss impact into the initial project concept stage of their project cycle, including site selection and scoping of significant issues, so as to make positive influence on decision making at the earliest possible opportunity and to explore proactively about options and alternatives ^[9]. This serves as a legal pressure to enforce company to establish internal guidelines, develop measures to avoid, pre-empt, prevent and reduce project-induced adverse impact, so as to minimize potential ecological damage and to encourage good practices. Public engagement in the EIA process also provides Project Proponent more complete information, for example public concerns of impacts on species of conservation importance, resulting in better outcomes and governance. Such forward-looking strategies help companies to give sensible, practical and effective project-specific recommendations at early stage of a project, instead of relying on remedial measures after problem occurs. Moreover, clear definition of the methodology and responsibility for

implementing the recommended mitigation measures in EIA allow thorough communication among relevant parties and instant reaction in case of exceedance of compliance. With the easy to enforce recommended measure, monitoring work of the proposed project can also be done in a straightforward manner. Not only can EIA assist companies to minimize their project-induced ecological impact related to biodiversity loss, but it also helps to engage stakeholders to contribute to the biodiversity goal.

Case Study

MTR management of Lok Ma Chau wetland

Lok Ma Chau Ecological Enhancement Area (LMCEEA) is a well-known local example of successful wetland restoration and management for protection and conservation of biodiversity in Hong Kong, which gives insight into the opportunities of mutually beneficial linkages between ESG and EIA. According to the approved EIA and issued Environmental Permit (EP) for the Sheung Shui to Lok Ma Chau (LMC) Spur Line ^[10] in 2002, 32 hectares of ecological compensation in the LMC fishponds area was required, leading to the establishment of the LMCEEA near the LMC MTR Station. The LMCEEA provides various habitats, including reedbeds, marshlands and fishponds for wildlife particularly precious birds and mammals, as shown in *Figure 3*.



Figure 3 Area distribution of Lok Ma Chau Wetland

Following the further EP requirements as stated in the EIA, a five-yearly review programme for the approved Habitat Creation and Management Plan (HCMP) for long term management with ecological monitoring has been adopted in a sustainable way to ensure that the Project leads to no net loss in the ecological function of the habitats concerned and enhance the ecological value of the wetlands for various wetland species.

It is not an easy task to create and manage such complex habitats as it requires a lot of efforts and resources. In accordance with MTR's Corporate Responsibility Policy Item 4.1.6 on conserving natural habitats and nurturing biodiversity particularly in ecologically sensitive areas ^[11], relevant environmental legislations and requirements has been strictly adhered to avoid and minimize adverse impacts on biodiversity relating to their operations and new development projects including that in LMC through proactive management and effective resource allocations. By ongoing ecological monitoring under the EP clause of the EIA, MTR is able to track their performance in biodiversity conservation through solid ecological data collected in the LMCEEA and to finance at the right spot for improvement under regular review of mitigation measures.

Since its operation in 2007, over 243 types of birds covering 50% of Hong Kong record is discovered, showing a high biodiversity value of the LMCEEA. About 40 new bird species have been documented as compared to 2007, including but not limited to Grey Heron, Great Cormorant, Little Egret, and over 9% of world population of globally threatened Black-faced Spoonbill for short stay wintering in the wetland. Various kinds of mammals including the near threatened Eurasian Otter, Leopard Cat, and Mongoose, are also found in LMCEEA, demonstrating the possibility of integrating ESG and EIA for biodiversity preservation.

Filling the Gap

The success of LMCEEA illustrated the opportunities brought by the mutually beneficial relations of ESG and EIA practices in biodiversity conservation. By a holistic approach to managing business activities, both ESG and EIA can help companies to protect biodiversity and to contribute to a more sustainable future as shown in *Figure 4*.

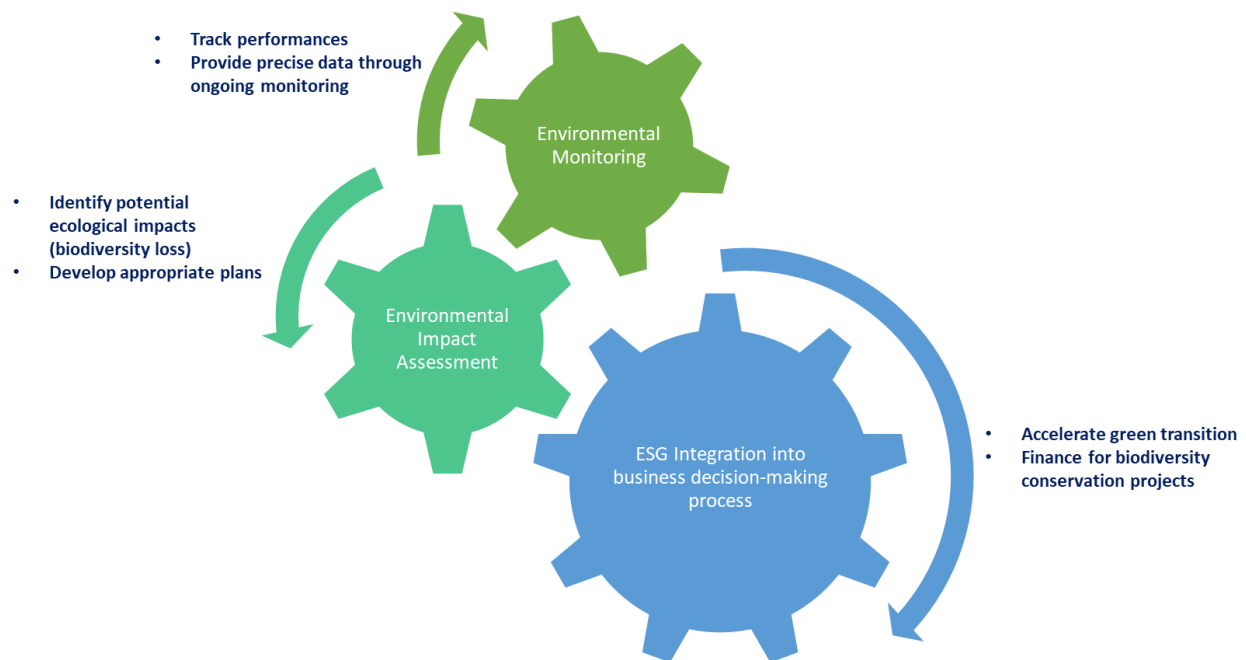


Figure 4 Opportunities between ESG and EIA in biodiversity management

Even in a metropolitan city like Hong Kong, it is possible to create a home for various species to perch and inhabit. Therefore, ESG and EIA should be more aligned to complement each other to bring the most out of both frameworks to manage impacts on biodiversity.

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