



# ***Wetland Compensation: Mechanisms and Implementation in Hong Kong SAR***

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\*This presentation is the opinion of the subject officer only and does not represent the viewpoint of the department nor the HKSAR government

## **Outline**

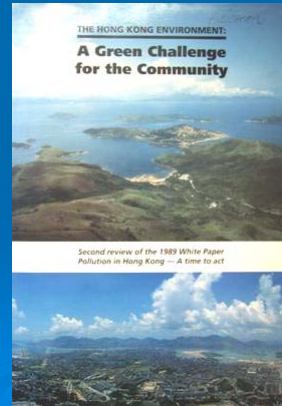
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- Policy and mechanisms in wetland compensation
- Guidelines on wetland compensation
- Examples on implementation of wetland compensation
- Constraints and opportunities
- Way forward

## Policy

- The first formal policy on habitat compensation was promulgated as part of our Nature Conservation Policy in 1993. It stated that –

*“Our conservation policy seeks to conserve and enhance our natural environment by ..... **compensating for areas** which merit conservation but which are inevitably lost to essential development projects”*



## Policy

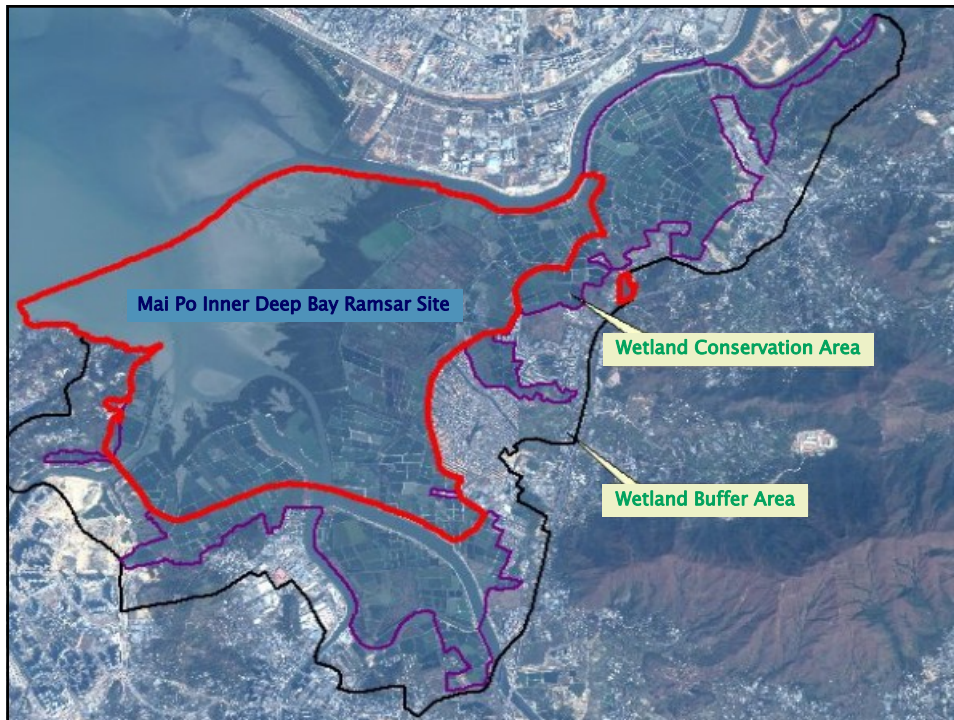
- The new Nature Conservation Policy statement promulgated in 2004 –



*“regulate, protect and manage natural resources that are important for the conservation of biological diversity of Hong Kong **in a sustainable manner.....**”*

## Land Use Planning

- **Town Planning Ordinance**, Cap 131 provides for the statutory land use control through preparation of Statutory Plans and approval of planning applications.
- The Town Planning Board (TPB) Guidelines No.12B: “*Application for Development within Deep Bay Area under Section 16 of the TPO*” -
  - Adopts the principle of “**no-net-loss**” in wetland
  - **Wetland compensation** is required for any development involving pond filling to be imposed as part of the planning approval conditions
  - Designates the Wetland Conservation Area and Wetland Buffer Area

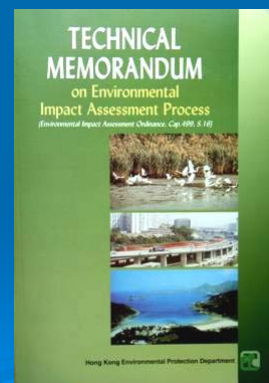


# EIA

- In 1988, a government circular was issued to establish a link on **public works programme** and the **EIA process**
- In 1998, Environmental Impact Assessment Ordinance, Cap 499 came into effects. It provides a **statutory** framework for:
  - **assessing** the impacts of designated development projects on the environment
  - the **implementation** of recommended mitigation measures through a permit system

## Approaches in Wetland Compensation

- Guidelines for Wetland Compensation are given in the Technical Memorandum on EIA Process (TM).
  - As a **last resort** after avoidance and minimization measures have been applied to the maximum extent practicable
  - Preference of **on-site** to off-site compensation
  - Preference of **well in advance** to after the completion of work
  - The compensation should be on a “**like for like**” basis (same species, size or ecological functions)



## Approaches in Wetland Compensation

- Wetland Compensation can be achieved through:
  - **Wetland Creation** – to create wetland at in an area, which was not a wetland in the recent past
  - **Wetland Enhancement** – to enhance ecological function of existing wetland by modifying management practice and/or physical setting
  - **Wetland Restoration** – to restore previously degraded wetland
- There is no preference and pre-defined compensation ratio for any of these approaches in TM, but the wetland restoration is encouraged in the WBA in the TPB guidelines.

## Examples of Wetland Compensation

- New Town Development at Tin Shui Wai

- **Impact:**
  - Loss of freshwater habitats for Tin Shui Wai New Town Development
- **Compensation:**
  - To construct a 61 ha Wetland Park for nature conservation, education and eco-tourism



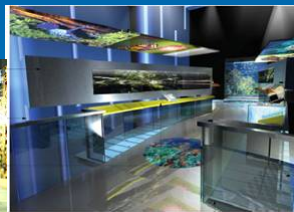
## Wetland Park under construction



## Indoor Visitor Centre

10,000 m<sup>2</sup>

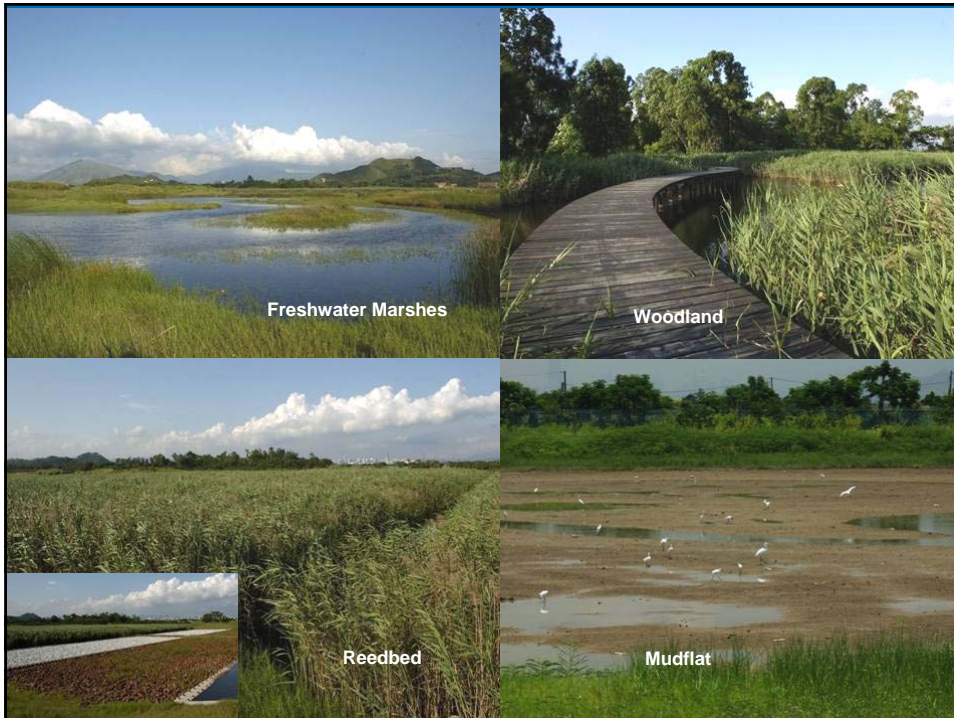
- ✓ Exhibition galleries
- ✓ Souvenir shop
- ✓ Café
- ✓ Theatre
- ✓ Classroom and resource centre



## Wetland Reserve

60-hectare

- ✓ Wetland Discovery Centre
- ✓ Stream Walk
- ✓ Succession Walk
- ✓ Bird Hides
- ✓ Mangrove boardwalk
- ✓ Wildlife habitats





From wetland compensation to eco-tourism, education and sustainable development

## Examples of Wetland Compensation

- Construction of Chek Lap Kok new airport and North Lantau Highway at Lantau
- Impact:
  - Loss of 7 ha of Mangrove
- Compensation:
  - To create 11 ha of mangrove habitat at Tai O disused Saltpan







Mixing of sediment



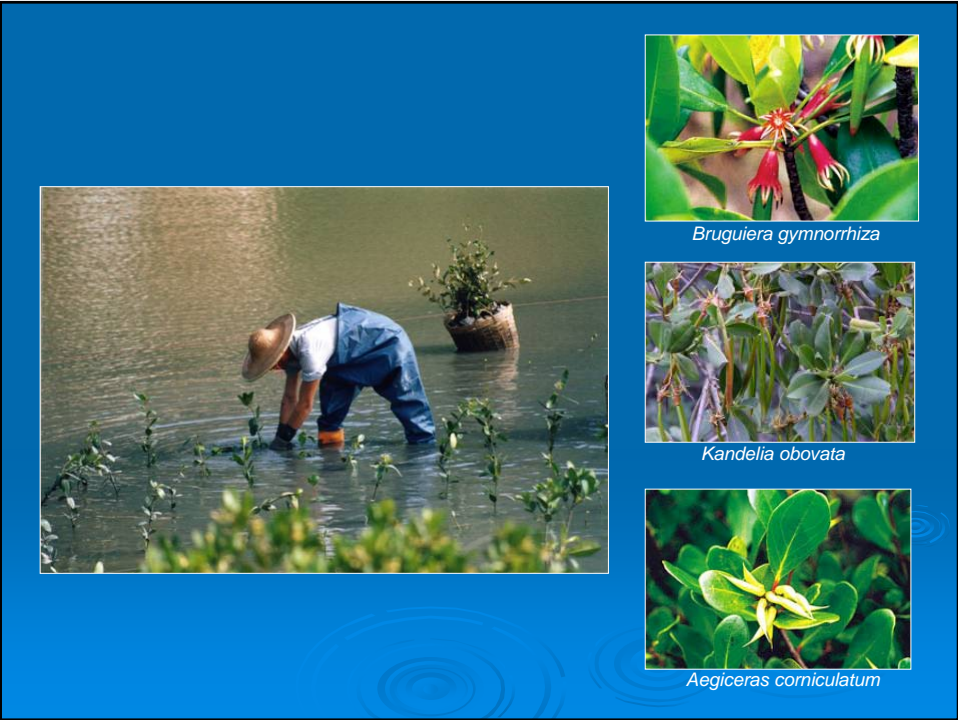
Profiling



Pipeline to transport sediment



Ready for planting



## Examples of Wetland Compensation

- KCRC Lok Ma Chau to Sheung Shui Spur Line

- Impact:

- loss of 9 ha of Fishponds

- Compensation:

- To enhance and manage 27 ha of fishponds



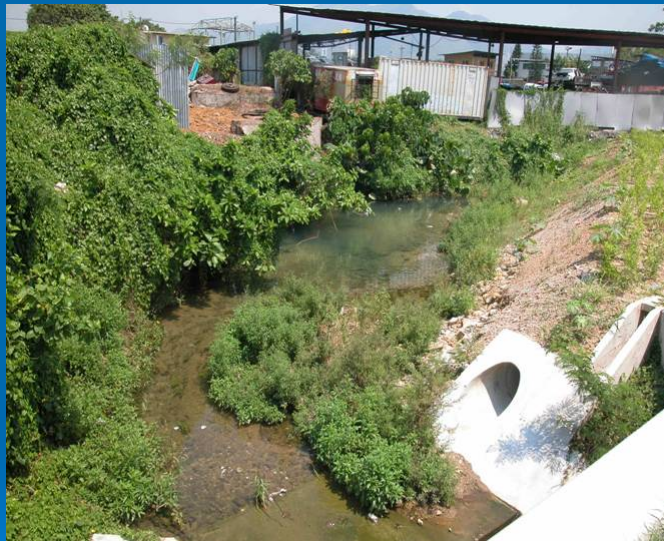


## Constraints and Opportunities

### × *Constraint - The location*

- From ecological point of view, **on-site** compensation measure is preferred to off-site
- All practicable on-site mitigation should be **exhausted** before off-site mitigation is proposed
- On-site is often interpreted as “**within the project boundary**”

**Route 3**



**River meander close to village house  
in 81CD segment of MDC**

Kam Tin Bypass



Deep Bay Link



## Constraints and Opportunities

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× **Constraint** - On-site compensation areas may often:

- subject to continual disturbance impact in operational phase; or
- incompatible with the adjacent land uses

✓ **Opportunity**

*If on-site measures are proved to be impracticable in many cases, the feasibility of off-site compensation should be explored in future EIA studies.*

## Constraints and Opportunities

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× **Constraint – The timing**

- well in advance of works rather than after the completion of works
- strict preference of on-site requirement → using the temporary works area within the project boundary for compensation.
- in advance compensation is usually impracticable.

✓ **Opportunity –**

*If off-site compensation is proved feasible, wetland compensation could be provided in advance without being affected by the project construction.*

## Constraints and Opportunities

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### × *Constraint – The form of compensation*

- on a “like for like” basis (i.e. same species, same habitat of the same size or same kind of ecological functions)
- considered on a project basis → resulted in piecemeal and fragmented habitats located here and there

### ✓ *Opportunity –*

*If mitigation measures of different projects could be consolidated and slightly relaxed from the “like for like” requirement, the accumulated wetland loss can be compensated by creating a large piece of diverse wetland habitats at an off-site location.*

## Way Forward

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### • *Off-site Compensation*

- Clear ecological benefits
- Better management
- In line with the existing EIA legislation and guidelines

### • *Issues to be resolved*

- Land availability for off-site compensation
- Conflicts in land use for various purposes
- Interface and co-ordination of different development projects arising at different timing
- Clearer guidelines on off-site compensation and consensus amongst stakeholders





*Thank you  
for your attention!*

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