Harnessing Nature-Based Solutions for a Sustainable Future:
Hong Kong's Emerging NbS
Landscape

17 November 2025

HKUST

By Kitty Tam, Programme Lead, Civic Exchange





Triple Planetary Crisis

Climate: 1.5°C overshoot risk within 3 years; system collapse risks (permafrost, mangroves)

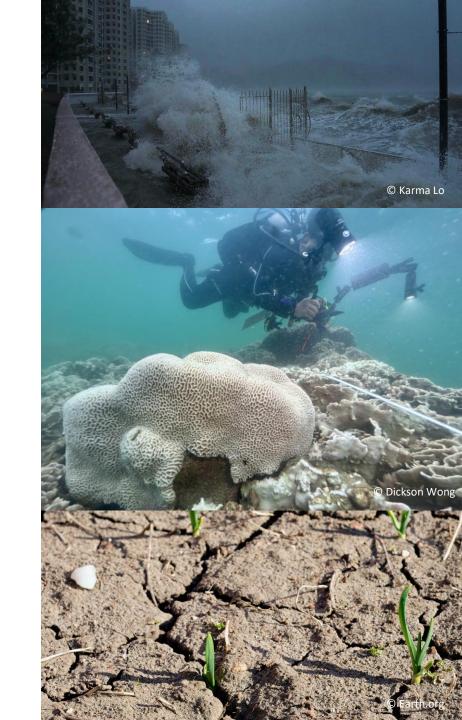
Biodiversity: 44% coral reef species at risk, loss of ecosystem services & livelihoods

Land: 30-40% degraded; 78% surface getting significantly drier

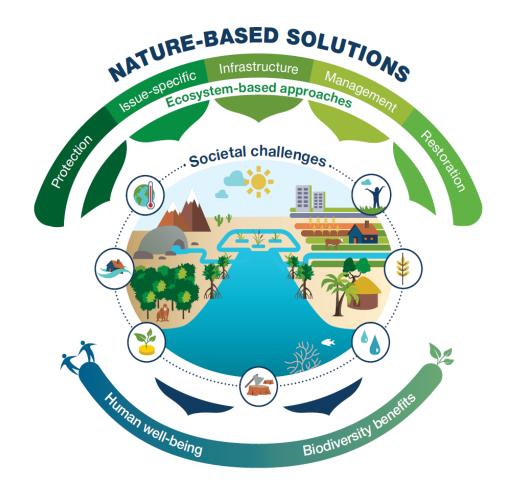


Interlinked crisis: interlinked approach is needed





Defining NbS



Actions to protect, **conserve**, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic environmental challenges effectively and adaptively, while simultaneously well-being, providing human ecosystem services, resilience and biodiversity benefits.



Resolution 069, WCC, 2016

UNEP/EA.5/Res.5, 2022

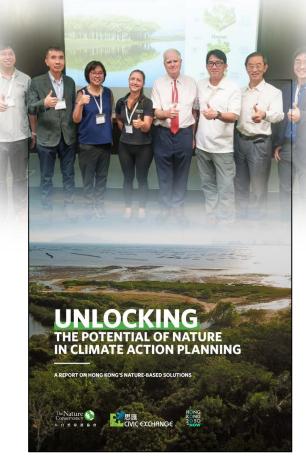




What led us here?

Year 2023/24 - NbS 1.0

Identified the *potential* of individual NbS applications across Hong Kong





From concept introduction to mainstream recognition

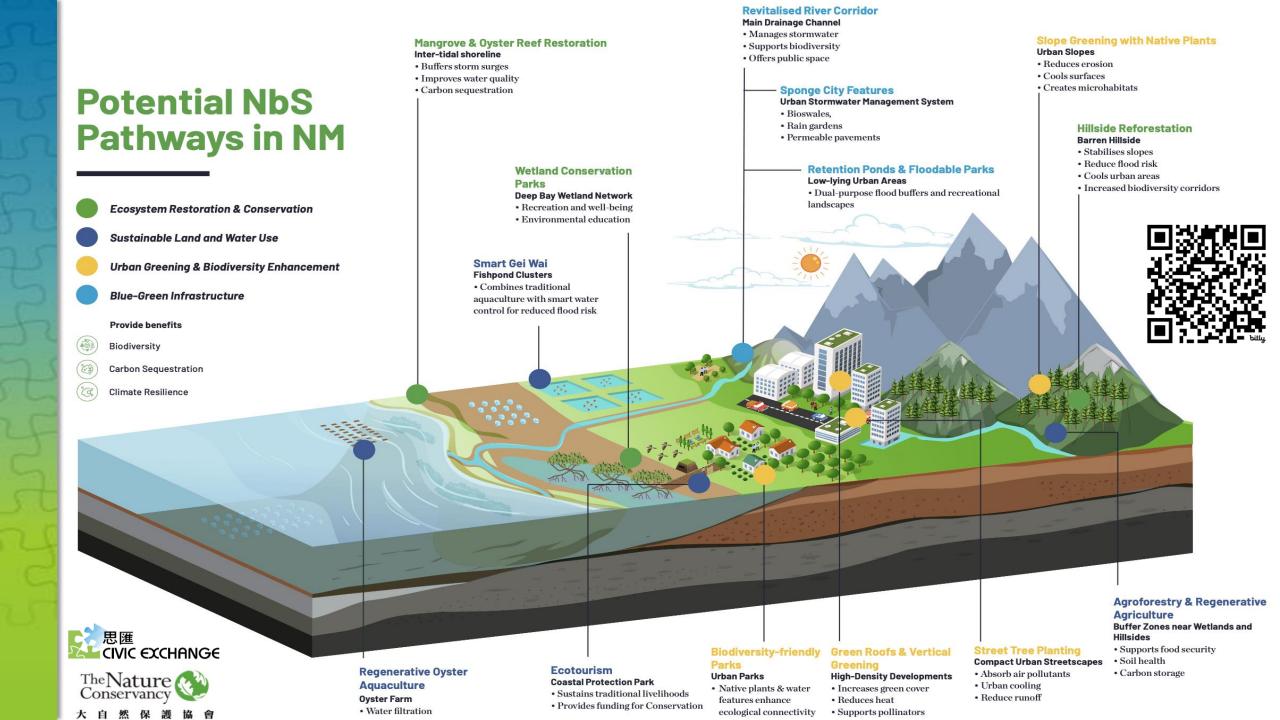
Nature-based

Solutions in the Northern Metropolis: A Model for 21st-century Cities in Addressing Global

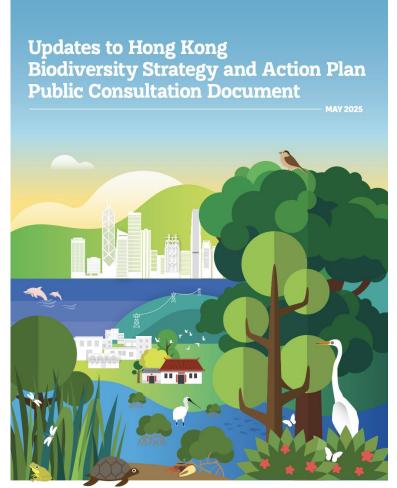


Year 2026 - NbS 3.0





Update of Biodiversity Strategy and Action Plan









CHAPTER 2:

New Global and National Initiatives



The COP15 to the CBD held in December 2022 under the presidency of China adopted a new strategic global framework on biodiversity, the KMGBF. The KMGBF sets two overarching goals: firstly, to halt the trend of global biodiversity loss by 2030, and secondly, to achieve harmonious coexistence between humans and nature by 2050. It comprises 23 action-oriented global targets, also known as the "Kunming-Montreal 2030 Targets", which are grouped under three categories: reducing threats to biodiversity (Targets 1-8), meeting people's needs through sustainable use and benefit-sharing (Targets 9-13), and tools and solutions for implementation and mainstreaming (Targets 14-23). As a key document in international biodiversity governance, the KMGBF establishes global targets that address fundamental human needs while clearly stating that each Party should implement measures in line with its national circumstances, priorities and socio-economic conditions.

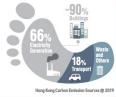
This approach ensures the effective realisation of sustainable development principles centred on harmonious coexistence between humans and nature.

The KMGBF marks a historic milestone in biodiversity conservation. It covers a wide spectrum of topics (e.g. protected areas, species conservation, climate change, pollution/waste reduction, green finance, biodiversity risk disclosure, sustainable consumption and blue-green space) and relatively new concepts (e.g. other effective area-based conservation measure (OECM³) and nature-based solution (NbS⁴)). It goes beyond just government commitments for building a nature-based world but calls for action from every sector of society. Everyone, from organisation and business to individual, has an important role to play in this collective endeavour.



Climate Action Plan 2050





Decarbonisation

No Coal for Electricity Generation Zero-carbon Energy

Cease using coal for daily

electricity generation, to be

replaced by low to zero-carbon

(Increase to 15% subsequently)

Public and private sectors to

develop RE proactively to increase its share in the fuel mix

Government has allocated over \$47 billion to implement of coal in the fuel various carbon reduction generation from measures. The two power around half in allocated about \$39 billion to a quarter

Energy Saving and Green Buildings About 2.1 billion kWh of electricity was saved in 2020 as compared with 2015 (-4.7%)



Decarbonisation comes at a price. Buildings account for about 90% of

Hong Kong's total electricity consumption. Promoting energy conservation

and improving energy efficiency can help reduce the cost of transformation

In the first half of 2021, one out of every five



Study on resilience of Government critical infrastructure in Hong Kong under extreme weather

Sensitivity test under direct hit by super typhoons Frequency analysis of extreme sea levels

Clean Air Plan for Hong Kong 2035

Strengthening Infrastructure

Adaptation and Resilience

The Climate Change Working Group on Infrastructure: Major Studies

Green Transport

Transport constituted about 18% of total carbon emissions in

2019. Popularisation of EVs and other new energy transport

can help the transport sector achieve zero carbon emissions

Hong Kong Roadmap on Popularisation of Electric Vehicle

2050

measures set forth in the EV Roadmap

Tropical Cyclones

Projection of extreme winds

Study on potential impacts on

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Government infrastructure under

Eliminated 127 flooding blackspots, improvemen works for the remaining 4 black spots will be

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Transport System Update contingency plans to major transport infrastructure

Contingency Plan for Natural Disasters

Inter-departmental Steering Committee chaired by the Chief Secretary for Administration to handle natural disasters of a substantial scale

Emergency Alert System Disseminate messages to mobile

users during emergency situations to remind the public to adopt contingency measures



Zero-carbon Liveable Emissions







Strategies · Opportunities

loving towards carbon neutrality can bring ample and diverse development opportunities, enhance Hong Kong's ompetitiveness and support sustainable development

The Steering Committee on Climate Change and Carbon Neutrality under the chairmanship of the Chief

Simate Budget

Allocate - \$240 billion to next 15 to 20 years

Office of Climate Change Set up a new office to

strenghten coordination a promote decarbonisation stablish a dedicated

courage public

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Promote I&T development and re-industrialisation, facilitate the application of

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Accelerate the development

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Green Economy

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Develop strategic growth areas into carbon-neutra

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Seek investment and

Electricity Saving in Buildings



performance of buildings

Implement the identified energy





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hybrid private cars

2035 2035

Solid Waste Charging

2023

Prepare for

encourage wast

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Waste Reduction

Waste Blueprint for Hong Kong 2035

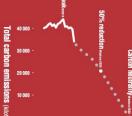
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2035 Develop adequate

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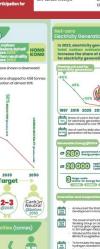


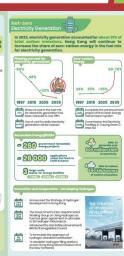












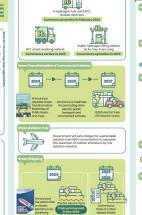










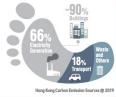






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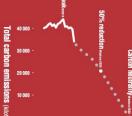
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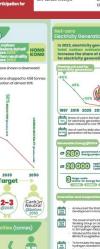


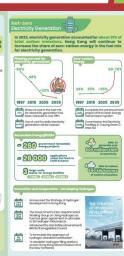












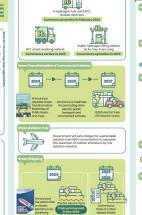










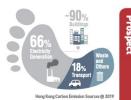






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increase its sh

The development of Sam Po Shue Wetland Conservation Park will commence in 2026/2027, creating synergy with the adjacent Mai Po Nature Reserve to enhance the conservation of wetland ecosystem in the Deep Bay area

> Developed the first Biodiversity Strategy and Action Plan (BSAP)





Over 60 specific actions listed in BSAP substantially completed

Update BSAP with reference to Kunming-Montreal Global Biodiversity Framework and China's National Biodiversity Conservation Strategy and Action Plan (2023-2030)

lew Country, Marine and Nature Parks

Hong Kong's total land area.

25 country parks and 22 special areas cover a total area of 44,842 hectares, accounting for about 40% of



Increase Carbon Sink of the Ecosystem

> Country Park, with its mountain ridges and natural streams, provides habitats for wild animals and plants, forming a cross-boundary ecological corridor to Shenzhen's Wutong Mountain 3 new marine parks were

Established in 2024, the Robin's Nest

- established in the past 5 years, including Southwest Lantau Marine Park, South Lantau Marine Park and North Lantau Marine Park to strenathen conservation of marine ecology
- Long Valley Nature Park was opened in 2024 to better achieve the complementary objectives of conservation and agriculture

etland Conservation



Hong Kong and Shenzhen signed the Framework Arrangement for the Conservation of Shenzhen Bay (Deep Bay) Wetlands in 2023 to jointly strengthen the protection of mudflats at intertidal areas and





Resilience

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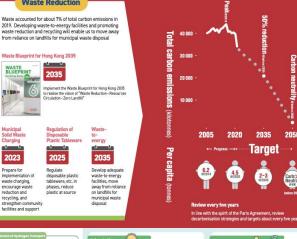
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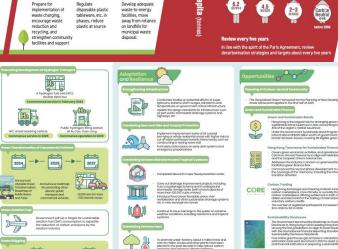
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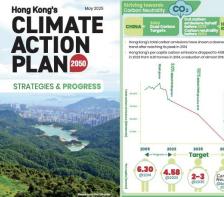


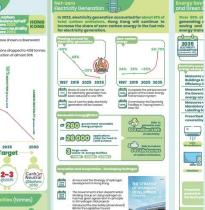
Zero-carbon Liveable

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Emissions



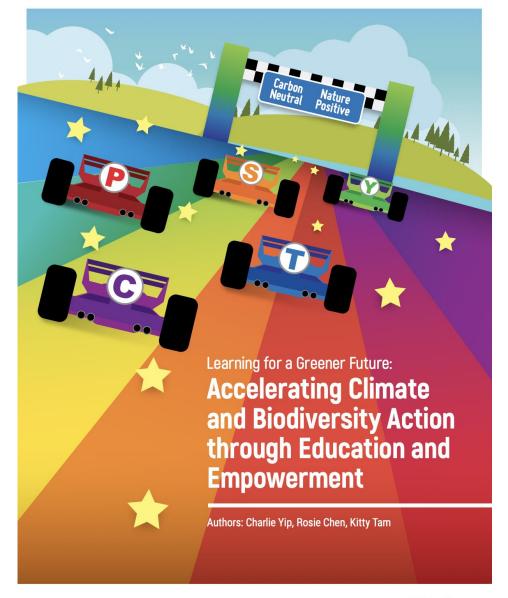




Education

- 482 school development plans: 2% climate change & 1% biodiversity
- Gaps: STEAM Education
- Education Bureau x Civic Exchange NbS Campus Competition











Building Up Momentum

Hong Kong NbS Week x 2 (30th October – 20th November 2025)



We organise a series
of workshops and site
visits with Global
Head of IUCN NbS
Charles Karangwa
and IUCN Asia
Regional NbS
Technical Officer
Hanif Falah

Co-launch 10
Hong Kong NbS
Case Studies
with IUCN



Research on **Urban NbS**



Research on **Eco-Tourism**



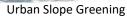
2026 NbS Conference Week

(June 2026)











Long-Term (5-10 Years)

What is the Hong Kong NbS Hub?

We envision HKSAR will become a **regional leader** and **city model** in the application and innovation of **high-integrity Nature-based Solutions** for sustainable development, resilience, and climate action

Mission of Hong Kong NbS Hub

- Support implementation, mainstreaming, and scaling of NbS in HKSAR through a coordinated and sciencebased approach, anchored in global standards and regional collaboration
- Serve as an efficient co-working platform with key stakeholders and experts

Steering Committee

Chaired by HKSARG Bureau and vicechaired by IUCN Global Head for NbS

Technical Advisory Committee

Joined by 10-12 regional and city NbS experts



- Become regional technical lead on urban and infrastructure-integrated NbS
- Influence global guidance through documented best practices
- Offer *certification* and technical support across Asia-Pacific cities

Medium-Term (3–5 Years)

- Support full NbS integration in HKSAR's updated Climate Action Plan 2050 and BSAP
- 2. Establish a HKSAR NbS Knowledge Platform
- Host regional peer exchange and high-level symposium on Urban NbS
- Leverage financing from MDBs and private sector for scaling

Short-Term (1-3 Years)

- 1. Map existing and potential NbS projects
- Conduct city baseline assessment using IUCN NbS Self-Assessment Tool
- Develop 2–3 pilot urban and coastal NbS demonstration projects
- 4. Publish an NbS HKSAR State of Practice Report
- Deliver first cohort training for professionals on IUCN NbS Standard



THANK YOU

KTAM@CIVIC-EXCHANGE.ORG

