



2 | Our Efforts and Achievements

The Government, together with many individuals, societies and organisations in the community, has already achieved much in preserving Hong Kong’s natural environment. These efforts lay a solid foundation for ongoing biodiversity conservation.

2.1 Efforts

The Government’s past conservation work falls into ten categories, as described below.

2.1.1 Protection of natural landscapes and habitats

The Government works toward conservation objectives with a “habitat approach”; that is, it identifies valuable habitats and then protects them by law (parks and reserves) or by zoning (Sites of Special Scientific Interest).

Country parks and special areas: Since the 1970s the total area designated as country parks and/or special areas has nearly doubled. Today we have 24 country parks and 22 special areas, totalling 44 300 hectares, or about 40% of Hong Kong’s total land area. About two-thirds of forests in Hong Kong are inside country parks. These forests include some with exceptionally high ecological and scientific value. Within these parks and areas, habitats are managed in a way to enhance their ecological and landscape value. Systematic thinning and enrichment planting are used to gradually replace aging exotic trees with native ones. Native species provide better habitats for native wildlife, and encourage a more diverse and stable ecosystem.

Marine parks and reserves: At present there are four marine parks and one marine reserve actively managed for conservation, education, research and/or recreation. These parks represent a total of 2 430 hectares of ecologically important marine habitats.

Hong Kong Global Geopark of China: Added to the UNESCO’s Global Geoparks Network in 2011, the Geopark is a single entity composed of geo-areas and neighbourhood areas. The eight geo-areas of around 5 000 hectares are located in the Sai Kung Volcanic Rock Region and the Northeast New Territories Sedimentary Rock Region.



BOX 3

The New Nature Conservation Policy

Announced in 2004, the New Nature Conservation Policy (NNCP) sets out the current nature conservation policy framework in Hong Kong. The NNCP aims at “regulating, protecting and managing natural resources that are important for the conservation of biological diversity of Hong Kong in a sustainable manner, taking into account social and economic considerations, for the benefit and enjoyment of the present and future generations of the community.”

In 2015, the Chief Executive announced in his Policy Address that the Government is formulating the first BSAP for Hong Kong, to guide our actions in stepping up nature conservation and supporting sustainable development in the next five years.

Restricted areas: Human access to three ecologically important wildlife habitats is strictly controlled to minimise disturbance. These habitats are the Yim Tso Ha Egretty, an important nesting site of egrets and herons; the Sham Wan Beach on Lamma Island, the only regular nesting site of the endangered Green Turtles known in Hong Kong; and the Mai Po Marshes, an important over-wintering and refuelling site for migratory water birds.

Sites of Special Scientific Interest (SSSIs): In general, SSSIs are important and representative examples of specific habitats in Hong Kong. To date, 67 sites are listed in this category. The listing is an administrative measure to ensure government departments would consider conservation carefully when development is proposed within or near these sites. Some legislation refers to this list, which protect SSSIs. For example, the Environmental Impact Assessment Ordinance provides that any major development to be carried out within or near any existing or planned SSSI would potentially be a “designated project” and will have to meet a set of statutory requirements.





BOX 4

Mai Po Marshes and the Inner Deep Bay region

The Mai Po Marshes, together with the Inner Deep Bay region, have been listed since 1995 as a Ramsar Site, i.e. a Wetland of International Importance. Every year, this piece of 1 500-hectare wetland serves as an important over-wintering and refuelling station for 50 000 to 80 000 migratory water birds including 49 globally-threatened species. The site is divided into four management zones, each with specific management objectives. In addition, the use and development of areas in and around this Ramsar Site is restricted by law to protect its ecological integrity. The Government has also covered this and the nearby area with statutory plans and Town Planning Board Guideline has been issued to further ensure that any development of the surrounding area is compatible with the conservation of the wetland habitats.

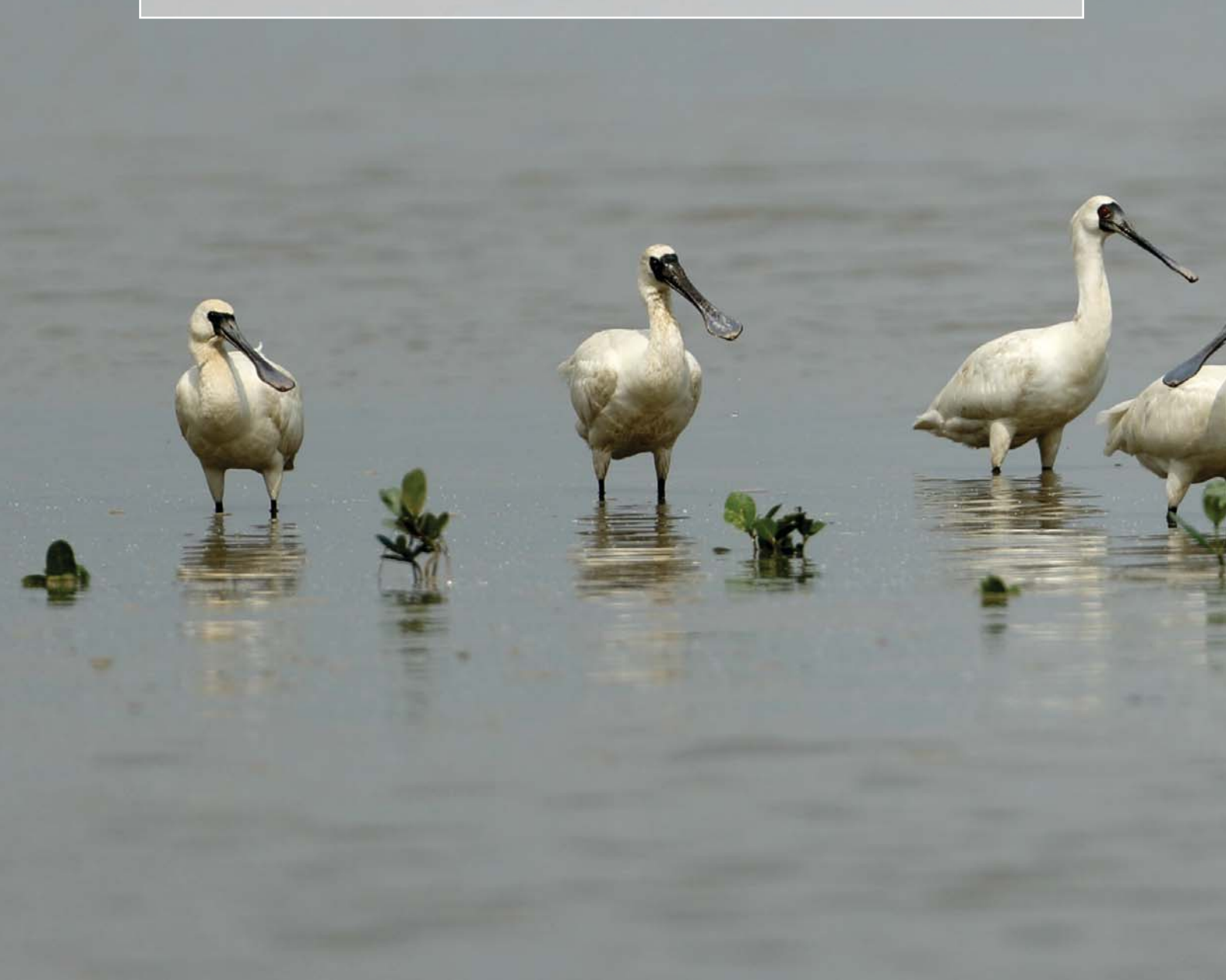
BOX 5

Black-faced Spoonbill (*Platalea minor*) Species Action Plan

With a world population of only about 3 000, the Black-faced Spoonbill (BFS) is classified as “Endangered”. Endemic to East Asia, it is a migratory species that utilises mudflats, marshes, fishponds and mangroves. Hong Kong’s Deep Bay area has been one of its major over-wintering grounds.

The conservation plan for BFS comprises law enforcement, monitoring, habitat management and protection and education. The AFCD provides

financial support to the World Wide Fund for Nature Hong Kong to manage the wetland habitats in the core area of the Ramsar Site where the species roosts and feeds. During the winter, the AFCD monitors and assesses the BFS population, and participates in the annual global census of the species. The Hong Kong Wetland Park offers awareness and education programmes to let the public learn about this remarkable and beautiful species.





2.1.2 Species conservation

Protection of individual species directly contributes to biodiversity conservation. The Agriculture, Fisheries and Conservation Department (AFCD) seeks to conserve and protect wild plants and animals—particularly native species through laws, monitoring, species recovery programmes, and control of invasive alien species.

Legislation:

1	Forests and Countryside Ordinance prohibits destruction of trees and plants in forests and plantations on government land, and possession of listed plant species.
2	Wild Animals Protection Ordinance prohibits hunting, possession of hunting appliances and possession of listed protected wild animals taken in Hong Kong.
3	Protection of Endangered Species of Animals and Plants Ordinance regulates the import, export, possession and control of endangered species of animals and plants or their parts and derivatives through licensing and enforcement.
4	Genetically Modified Organisms Ordinance controls the release of genetically modified organisms within Hong Kong's borders and their trans-boundary movement.

Practices:

1	Species monitoring The AFCD has been operating a territory-wide long-term Biodiversity Survey Programme since 2002, covering different habitats, monitoring the conditions of important plant communities and more than 1 200 species of animals. The data collected are analysed and used to identify priority areas and species that may need conservation.
2	Species-specific action plans A multi-pronged approach, including on-site/off-site measures, monitoring, research and education, is used to support the survival of targeted species or species of conservation concern.
3	Control of invasive alien species Foreign, non-native species of both plants and animals can become invasive, threatening to take over a habitat. They can endanger the survival of native species and/or pose public health concern. Hence, the Government has implemented an integrated suite of measures to control their import and, in particular, to prevent them from invading ecologically sensitive areas.



BOX 6

MA Scheme in Long Valley and Ho Sheung Heung Priority Site

The Conservancy Association and the Hong Kong Bird Watching Society have been managing this 15-hectare site since 2005 under the MA Scheme. They have adaptively managed the site with respect to the specific habitats present, and have also worked with local villagers and farmers to organise workshops and eco-tours, educating both the public and local people about wetland conservation.

2.1.3 Partnerships with public and private organisations

Together with the announcement of the New Nature Conservation Policy in 2004, the Government has identified 12 **Priority Sites for enhanced conservation**, and adopted the following measures to enhance conservation on these Sites while respecting landowners' property rights:

Public-Private Partnership (PPP) Scheme: Under this Scheme, a private party is allowed to develop an ecologically less sensitive portion of one of these Priority Sites if they agree to conserve and manage the remainder of the site, on a long-term basis.

Management Agreement (MA) Scheme: Under the MA Scheme, a non-profit-making organisation can apply for funding from the Environmental Conservation Fund (ECF), make use of the fund to enter into agreements with landowners and take up the management right of a Priority Site for the purposes of enhancing conservation and education. So far, four sites are being managed under this arrangement.



BOX 7

Conservation education at Hong Kong Wetland Park

The 61-hectare Hong Kong Wetland Park has a wide range of habitats, such as mangroves, inter-tidal brackish mud flats, freshwater marshes, reed beds and woodlands, connected by footpaths and boardwalks for visitors to experience the habitats themselves.

In addition, the Park's 10 000 m² Visitor Centre features thematic, interactive exhibits showing the values and characteristics of wetlands, their functions, cultural importance, as well as threats and challenges.





2.1.4 Communication, education and public awareness

Successful conservation depends on community support. Thus, the Government has continuously invested in educating the public, particularly within schools, and raising public awareness.

Communication, Education, Participation and Awareness (CEPA) programmes offer educational programmes and materials that promote the understanding of the importance of biodiversity conservation and complement the local secondary school curriculum. The AFCD has produced ready-for-use educational kits for teachers and students.

Educational facilities: The AFCD has created informative and interactive educational facilities within country parks. In addition, it organises projects and activities to educate the public and engage the community in conservation work.

Wetland Link International (WLI): Hong Kong has actively participated in WLI² to enhance exchange of knowledge and develop educational and public awareness programmes.

2. Find out more about Wetland Link International: <http://wli.wwt.org.uk/>

2.1.5 Sustainable fisheries and agriculture

The Government has been taking measures to facilitate development of sustainable fisheries and agriculture according to the particular circumstances in Hong Kong.

Fisheries: The overall goal is to promote sustainable fisheries and aquaculture while protecting fisheries resources under the prevalent circumstances. The efforts have been three-pronged. First, the **Fisheries Protection Ordinance** bans fishing practices that may cause irrevocable damages to the marine ecosystem, such as fishing with explosives, toxic substances, and electricity as well as trawling, dredging and using suction devices. Second, **artificial reefs** have been deployed in suitable habitats. These reefs are proven attractive to over 220 species of fish including groupers, snappers and sweetlips. Finally, in 2012, the AFCD introduced a host of measures including a **ban on trawling** in Hong Kong waters and a cap on the overall number and engine power of fishing vessels in Hong Kong with a view to addressing the overfishing problem and facilitating the recovery of local stock of fish. Preliminary surveys indicate signs of recovery of fisheries resources in certain parts of Hong Kong waters.





Agriculture: The AFCD has been providing support to local agriculture sector to develop modern and environmental-friendly farming technologies with emphasis on preservation of natural resources and the agricultural ecology. For instance, the AFCD has been assisting farmers in switching to organic farming by setting up independent certification services and providing technical and marketing support. At the end of 2015, there are 266 organic farms in Hong Kong, supplying 6 tonnes of organic produce daily. Other environmental-friendly agricultural practices are also promoted to reduce the sector’s impacts on the environment/biodiversity.

2.1.6 Land use planning and planning control and environmental impact assessment

The “Hong Kong 2030: Planning Vision and Strategy”, promulgated in 2007, provides for a broad land use planning framework for our city to grow sustainably. In this territorial development strategy, areas with conservation value were identified to be protected from intrusion of urban development, while other areas with development potential avoiding areas of higher conservation value are identified to accommodate Hong Kong’s sustainable growth. The Government regulates development through legislation and administrative measures. The Town Planning Ordinance provides for the designation of ecologically sensitive areas as conservation zones on statutory plans in order to protect them against

incompatible developments, and it empowers the planning authority to take enforcement actions against unauthorised developments. The Environmental Impact Assessment Ordinance provides a mechanism for ensuring that the potential ecological impact of designated projects are avoided or mitigated at the project planning stage. In addition, there are administrative ways to address potential ecological concerns due to minor works or projects.

2.1.7 Sustainable development

The Government is committed to working in partnership with the community to create a society that thrives, both today and in the future, and that respects its neighbours' ability to do the same, having regard to local circumstances. Such concept is sustainable development. In 1999, the Chief Executive said that, for Hong Kong, sustainable development meant finding ways to:

- i) increase prosperity and improve the quality of life while reducing overall pollution and waste;
- ii) meet our own needs and aspirations without damaging the prospects of future generations; and
- iii) reduce environmental burdens on our neighbours and help preserve common resources.

Since 2001, all governmental bureaux and departments have been assessing, at the planning stages of new strategic initiatives or major programmes, the impact that the proposed initiatives or programmes would have on environmental, social and economic conditions of Hong Kong. Through these assessments, sensitive areas are being identified, and related issues are being addressed.

2.1.8 “Greening” urban ecosystems

Through plans, projects, technical guidelines and assessment tools, government departments are gradually restoring green spaces to the urban landscape throughout Hong Kong. These efforts are not only improving environmental quality, but will progressively improve habitats and enhance the biodiversity of our city spaces.

The Civil Engineering and Development Department (CEDD) has been implementing **Greening Master Plans (GMPs)** for all urban areas. These Plans, unique for each district, guide planting along infrastructures or premises, for example, roadsides, footbridges, flyovers and promenades.

In the planning of New Development Areas, various greening initiatives would be introduced to enhance biodiversity. Opportunities would be taken in revitalisation of water bodies, and creation of **blue-green infrastructure**.

The CEDD also uses **native species** in accordance with the guidelines stipulated in the Geotechnical Engineering Office Publication No. 1/2011 for providing vegetation covers on man-made slopes and natural hillsides that are dealt with under the Landslip Prevention and Mitigation Programme. Native vegetation species provide habitats for birds and insects, which in turn enhance biodiversity, natural succession and sustainability of slope vegetation covers.

The Drainage Services Department (DSD) has been proactively and creatively **enhancing drainage works** with wildlife-friendly designs and appropriate plantings to restore habitats for wildlife. They have created wildlife-friendly



“Government departments are gradually restoring green spaces to the urban landscape throughout Hong Kong to improve environmental quality and habitats, and enhance the biodiversity of our city spaces.”



BOX 8

DSD plants mangroves along Kam Tin River

Mangroves are planted along the bank of Kam Tin River to make them compatible with and to enable them integrate into the surrounding natural environment. They even become habitats to Great Egrets and many other water birds.

features in drainage channels such as in-stream refugia and fish ladders. In 2012-13, the DSD planted more than 3 300 trees and 560 000 shrubs, and provided an additional 3 200 m² of green roofs for pumping stations and sewage treatment plants.

Technical guidelines and assessment tools have been created to ensure new building projects will support biodiversity.

- **Sustainable Building Design (SBD) Guidelines:** to foster a quality and sustainable built environment in Hong Kong, since 2011, compliance with the SBD Guidelines and requirements on building separation, building setback and site coverage of greenery³ to facilitate ventilation and mitigate heat island effect has become part of the prerequisites for new private building developments to be eligible for gross floor area concessions for green and amenity features or non-mandatory and non-essential plant rooms and services.

3. The Guidelines requires new building developments with site areas of 1 000 m² or more to provide 20% (or 30% for larger sites) minimum site coverage of greenery at the pedestrian zone, communal podium roof / flat roof / main roof, slope and retaining structure, etc.

- **BEAM Plus certification:** in addition, satisfactory project registration and submission of final BEAM Plus certification results are also required for new private building developments to be eligible for gross floor area concessions stated above. BEAM Plus is a green building certification mechanism in Hong Kong that assesses a structure using a set of criteria specifying how it should be designed, constructed and operated to make it sustainable. The BEAM Plus certification assesses, among other issues, the impact of development on freshwater and groundwater systems and potential change to green space on the site.

The **Zero Carbon Building**, built in 2012, is one of the recent projects aiming at operating with zero carbon footprint and raising awareness on low-carbon living⁴. The Building has a 2 000 m² urban native forest, comprising approximately 13% of the site area. More than 220 native trees of 40 species were planted in a way to mimic a native woodland. The urban native forest has already reduced the building's heat island effect and is expected to establish a vibrant and natural ecosystem.

2.1.9 Pollution Control

To safeguard water quality in Hong Kong's freshwater and marine habitats, the Government is concerned with four aspects: sewerage, chemical waste, improper discharge and marine refuse.

Sewerage: About 93% of the population is now served by the public sewerage system ensuring raw sewage is collected for proper treatment before being discharged to the marine environment. The Government also has plans to extend the sewerage system to other unsewered villages.

Chemical waste: The implementation of a "cradle-to-grave" chemical waste control scheme under the Waste Disposal Ordinance, together with the changes in industrial activities in the past decades have significantly reduced the amount of potentially toxic substances released into the freshwater and marine environment.

4. Built in 2012 in the Kowloon Bay district by the Hong Kong Development Bureaux in partnership with the Construction Industry Council, it is the first building in Hong Kong that completely offset its carbon footprint using renewable energy.

Improper discharge: Discharge of polluted matters is subject to enforcement control under the Water Pollution Control Ordinance, the Waste Disposal Ordinance and the Dumping at Sea Ordinance, ensuring all discharges or deposits are properly made in accordance with the specified requirements.

Marine refuse: The Government is also concerned with keeping the shorelines clean. An Inter-departmental Working Group on Clean Shorelines was set up in November 2012 to coordinate the efforts made by government departments to tackle marine refuse issues through closer collaboration as well as joint Government and community efforts. In light of the findings of a Marine Refuse Study published in April 2015, the Working Group member departments are implementing enhanced measures to improve shoreline cleanliness.

2.1.10 Reducing greenhouse gases and climate adaptation

Climate change leads to serious consequences including higher frequency of extreme weather events, which threaten lives and damage infrastructure. Climate change mitigation will help protect us and our biodiversity. One way to do so is to cut down our greenhouse gas emissions. In this regard, the Government is taking steps to reduce carbon intensity by 50% to 60% by 2020 when compared with the 2005 level. To cut back its greenhouse gas emissions, Hong Kong has also set a target to reduce energy intensity by 40% by 2025 as compared to 2005 level. The Government is considering setting new climate change related targets. The Government has already taken considerable actions on climate adaptation, such as flood and landslide prevention, and used bio-remedial methods where appropriate⁵.

5. Find out more about climate adaptation in Hong Kong:
<http://www.enb.gov.hk/sites/default/files/pdf/ClimateChangeEng.pdf>

2.2 Our achievements

Our continuous dedication in nature conservation has yielded encouraging results—particularly in terms of biodiversity.

