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For discussion on 10 May 2021

Hong Kong Biodiversity Strategy and Action Plan 2016-2021 Progress of Implementation

PURPOSE

This paper updates members on the annual progress of implementation of the Hong Kong Biodiversity Strategy and Action Plan (BSAP) 2016-2021.

OVERVIEW

2. Since the launch of the BSAP on 21 December 2016, all relevant Government bureaux and departments have been taking forward the specific actions in the BSAP under their respective purviews, in accordance with the implementation plan endorsed by the Inter-departmental Working Group on BSAP (IWGB) in April 2017. The Government has all along engaged relevant stakeholders in implementing the BSAP including enhancing of conservation measures and mainstreaming of biodiversity. Funding support has also been provided to take forward relevant research in improving our knowledge in biodiversity and education programmes for implementing the BSAP. Major achievements under each of the four key action areas are set out in the ensuing paragraphs. Detailed descriptions of the tasks and progress for each specific action are tabulated at **Annex**.

MAJOR ACHIEVEMENTS

Area 1 – Enhancing conservation measures

3. The Southwest Lantau Marine Park was designated on 1 April 2020 to facilitate better conservation of the Chinese White Dolphins and their habitats in the area. To protect coral communities and enhance fisheries resources, the new fisheries management strategy in marine parks was implemented on 1 April 2020

with a two year transitional period before imposing commercial fishing ban in four specified marine parks¹ from 1 April 2022 onwards.

4. The legislative amendments for the expansion of the Sham Wan Restricted Area and extension of restricted period to seven months each year to enhance the protection of Green Turtles were gazetted and tabled for negative vetting in December 2020 and took effect on 1 April 2021.

5. The Hong Kong Wetland Park (HKWP) consulted the Nature Conservation Sub-committee (NCSC) of the Advisory Council on the Environment (ACE) on the findings and recommendations of their consultancy study to review the ecological monitoring and habitat management plan of the HKWP in October 2020. The HKWP is revising the habitat management plan, including reviewing the management objectives and target species of different habitat zones with respect to the latest conservation status, in accordance with advice of the NCSC.

6. The Civil Engineering and Development Department (CEDD) has commenced the development works of the Long Valley Nature Park (LVNP)². The operator of the existing Management Agreement project at Long Valley and Ho Sheung Heung Priority Site was engaged for advice on interim and future maintenance of wetlands at Long Valley.

7. The consultancy study to review international practices for the management of invasive alien species and formulate a risk assessment protocol for Hong Kong was completed in April 2020. Risk assessment was conducted on alien species of amphibians and reptiles and none was found to be of high risk.

8. The internal guidelines for best practices in malaria prevention and control programmes of the Food and Environmental Hygiene Department were updated to incorporate conservation considerations in natural streams in 2020.

Area 2 – Mainstreaming biodiversity

9. The Environmental Protection Department has compiled a checklist to facilitate practitioners in preparing, reporting and reviewing the ecological impact assessment (EcoIA) chapters of the environmental impact assessment reports, and organised stakeholder meetings and workshops to enhance EcoIA practices during the year.

¹ Under the new fisheries management strategy in marine parks, commercial fishing will be fully banned in the Hoi Ha Wan Marine Park, Yan Chau Tong Marine Park and Tung Ping Chau Marine Park in the eastern waters and the Sha Chau and Lung Kwu Chau Marine Park in the western waters when the transitional period expires by April 2022.

² In 2019, 37 hectares of agriculture land in Long Valley was resumed by the Government for the development of the LVNP under the Kwu Tung North and Fanling North New Development Areas project.

10. The Greening, Landscape and Tree Management Section of the Development Bureau hosted the Hong Kong 2020 International Urban Forestry Conference on 16 and 17 January 2020, which provided a platform for local practitioners to learn and exchange insights with experts for continual improvement in the sustainable management of urban forests.

11. The Drainage Services Department (DSD) completed the study on “Revitalisation of Water Bodies” in September 2020 and is currently undertaking various channel revitalisation projects, including the commencement of revitalisation works for Tsui Ping River and Jordan Valley Nullah. The CEDD, in consultation with the DSD, completed the detailed design of “Revitalisation Zone” of the Tung Chung River Park in 2020 and plans to commence construction works in 2021 subject to funding approval.

Area 3 – Improving our knowledge

12. The Agriculture, Fisheries and Conservation Department (AFCD) completed a consultancy study on coral bleaching and bioerosion in Hong Kong in 2020, which provided comprehensive baseline information and recommendations on enhanced management measures for protection of the local coral community. A long-term coral monitoring plan has been developed to collect further data on coral bleaching.

13. AFCD has been working closely with external experts to compile the List of Threatened Species, which aims to identify species that are under risk of local extinction in Hong Kong. Different taxa groups are currently working at varying stages of the assessment and review process. The first batch of assessment results for amphibians, reptiles, waterbirds, bats and marine mammals is expected to be finalised in 2021.

14. AFCD has compiled priority research topics related to biodiversity and shared these with academic institutions to encourage studies to fill key knowledge gaps. From 2016 to 2020, the Environmental Research, Technology Demonstration and Conference Projects Funding Scheme under the Environment and Conservation Fund had approved a total of 49 research applications related to biodiversity which involved a total funding of \$52.1 million.

Area 4 – Promoting community involvement

15. The outbreak of the COVID-19 epidemic has significantly affected the delivery of education and community involvement activities by the Government and non-governmental organisations as most of the activities have been suspended or rescheduled. Some programmes have been converted to online seminars or promotion through social media channels. Educational programmes and capacity

building trainings are being planned and will be rolled out in 2021 subject to the development of the epidemic.

INTER-DEPARTMENTAL WORKING GROUP ON BSAP (IWGB)

16. The IWGB, chaired by the Secretary for the Environment, has met regularly since 2017 to discuss the progress of implementation, and will continue to meet regularly to facilitate timely monitoring of the implementation programme. The views and feedback received from the ACE and its NCSC related to BSAP implementation have also been reported to the IWGB.

ADVICE SOUGHT

17. Members are invited to note and comment on the progress of the implementation of the BSAP.

Agriculture, Fisheries and Conservation Department
May 2021

Implementation of Specific Actions under Hong Kong Biodiversity Strategy and Action Plan 2016-2021 (BSAP)

Progress update for Advisory Council on the Environment (ACE) – December 2020

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
1 - Maintain and enhance the management of protected areas	a) Prepare and implement biodiversity management plans, outlining the approach to biodiversity conservation in country parks, special areas, marine parks and marine reserve. Timeframe: M/L	AFCD	1(a)(i) Adoption of a biodiversity management plan for proposed Robin's Nest Country Park (RNCP) by 2019.	<ul style="list-style-type: none"> In 2017 AFCD commissioned a consultancy study on the planning, design and consultation of the proposed RNCP. The consultant has completed a baseline review, the stakeholder engagement and consultation exercises. Taking into account stakeholders' comments, the biodiversity management plan for the proposed RNCP is being finalised. The adoption of the management plan would be subject to the designation of the proposed RNCP.
			1(a)(ii) Enhanced fisheries management measures within marine parks, to better achieve the conservation objectives while promoting sustainable fisheries by 2019.	<ul style="list-style-type: none"> The Marine Parks and Marine Reserves (Amendment) Regulation 2019 for implementation of the new fisheries management strategy in marine parks has come into effect on 1 April 2020. There is a transitional period of two years for the affected existing fishing permit holders to adapt to the new strategy. No commercial fishing will be allowed in the four specified marine parks (i.e. Hoi Ha Wan Marine Park, Yan Chau Tong Marine Park, Tung Ping Chau Marine Park and, Sha Chau and Lung Kwu Chau Marine Park) starting from 1 April 2022.
	b) Carry out the Plantation Enrichment Programme (PEP) to enhance the biodiversity of plantations in country parks. Timeframe: O	AFCD	1(b)(i) PEP conducted in 50 ha of plantations in country parks in 2016-21.	<ul style="list-style-type: none"> During 2016-2020, PEP work has been carried out in 65 ha of plantations in country parks with the participation of eight non-governmental organisations (NGOs). Another six ha of plantations have been identified for 2020/21. Searching for new sites for PEP work for 2021/22 is in progress.
	c) Review the management plan for Sites of Special Scientific Interest (SSSI) to enhance the conservation and monitoring work carried out. Timeframe: S	AFCD	1(c)(i) Monitoring and Management Plan (MMP) of SSSI reviewed by 2018.	<ul style="list-style-type: none"> AFCD had reviewed the scientific interest of all SSSIs making reference to updated biodiversity data. The SSSI MMP had been reviewed and finalised in 2020.
	d) Review the Mai Po Inner Deep Bay Ramsar Site Management Plan (RSMP). Timeframe: M	AFCD	1(d)(i) Existing RSMP reviewed and updated RSMP implemented by 2021.	<ul style="list-style-type: none"> AFCD is collecting information and consulting stakeholders for updating the existing RSMP to take into account the latest developments including the Management Agreement Scheme. The timetable for the review and update of RSMP will be issued by the end of 2021.
	e) Enhance habitat management work in the Mai Po Nature Reserve (MPNR). Timeframe: O	AFCD	1(e)(i) Improved habitat management in accordance with the management objectives specified in the RSMP. Habitat enhancement work carried out in gei wais, mudflats and other wetland habitats.	<ul style="list-style-type: none"> AFCD has issued service contracts to the World Wide Fund for Nature Hong Kong for 2020/21 to enhance the habitat of MPNR, including desilting of ponds and gei wais, vegetation management on mudflat and gei wais, as well as removal of invasive alien species. The major capital works for 2020/21 had been completed.
f) Review and enhance the ecological monitoring and habitat management plan of the Hong Kong Wetland Park (HKWP). Timeframe: S	AFCD	1(f)(i) Ecological monitoring and habitat management plan of the HKWP reviewed and updated plan implemented by 2018.	<ul style="list-style-type: none"> In 2017 AFCD commissioned a consultancy study to review the ecological monitoring and habitat management plan of HKWP. The report was presented to the Nature Conservation Sub-committee of the Advisory Council on the Environment (ACE-NCSC) in October 2020. The habitat management plan of HKWP will be revised for adaptive management and updated to HKWP's website. 	
2 - Conserve ecologically important habitats outside the existing protected areas	a) Designate new marine parks in the waters near The Brothers, Southwest Lantau, South Lantau and North Lantau. Timeframe: S	ENB, AFCD	2(a)(i) Designation of The Brothers Marine Park (BMP) in December 2016.	<ul style="list-style-type: none"> The BMP was designated on 30 December 2016 as the fifth marine park in Hong Kong.
			2(a)(ii) Designation of a new marine park at Southwest Lantau (SWLMP) by 2018.	<ul style="list-style-type: none"> The SWLMP was designated on 1 April 2020 as the sixth marine park in Hong Kong.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
			2(a)(iii) Designation of a new marine park at South Lantau Marine Park (SLMP) by 2022.	<ul style="list-style-type: none"> AFCD is working with EPD to take forward the SLMP proposal combining the proposed marine park at Soko Islands and a compensatory marine park associated with the development of the Integrated Waste Management Facilities. The notice in Gazette for the proposed draft map of the SLMP was published for public inspection on 31 December 2020.
			2(a)(iv) Designation of the North Lantau Marine Park (NLMP) by 2024.	<ul style="list-style-type: none"> AFCD is assisting the Airport Authority Hong Kong (AA) to take forward the marine park proposal, aiming to complete the statutory designation procedure before the operation of the Three Runway System, tentatively by 2024. AA consulted the Marine Parks Committee (MPC) in July 2020 and the Country and Marine Parks Board (CMPB) in October 2020. Both MPC and CMPB supported the proposed NLMP.
	b) Designate new country park at Robin's Nest, and extend country parks to cover country park enclaves at appropriate locations. Timeframe: M/L	ENB, AFCD	2(b)(i) Designation of RNCP by end of 2020.	<ul style="list-style-type: none"> In 2017, AFCD commissioned a consultancy study on the planning, design and consultation of the proposed RNCP. Having completed a baseline review, the consultant is drafting an overall management and operation plan for the proposed RNCP in consultation with stakeholders. In July 2019 CMPB gave support for the commencement of statutory procedure for designation of the proposed RNCP. AFCD has been making preparatory work and conducting preliminary studies to prepare for the designation, such as consultancy study on traffic review, preliminary planning for hiking trails and consultancy study on the revitalisation of the Lin Ma Hang Lead Mine Cave, etc.
			2(b)(ii) Assessment of remaining enclaves and designate suitable enclaves as country parks.	<ul style="list-style-type: none"> The assessment on the suitability of the remaining enclaves for incorporation into country parks is in progress, with priority given to the Yi Tung Shan enclave on Lantau Island. On 17 March 2020, the Country Parks Committee supported the updated assessment and the proposal to incorporate Yi Tung Shan enclave into Lantau South Country Park. Key stakeholders are being consulted during 2020 and 2021.
	c) Develop a nature park at Long Valley for supporting conservation and agriculture in this ecologically important area. Timeframe: M	CEDD	2(c)(i) Commencement of Long Valley Nature Park (LVNP) construction by 2020. Establishment of LVNP by CEDD and management by AFCD by 2023.	<ul style="list-style-type: none"> The Habitat Creation and Management Plan for LVNP was finalised, in consultation with green groups, and approved by AFCD and EPD. The construction of the LVNP commenced in December 2019 for completion by 2023.
	d) Continue to implement the Management Agreement and Public-Private Partnership schemes to actively conserve ecologically important sites under private ownership, including the 12 priority sites, country park enclaves and private land in country parks through collaboration with NGOs and rural communities. Timeframe: O	ENB, DEVB, AFCD	2(d)(i) Enhanced conservation of at least six sites of high ecological value.	<ul style="list-style-type: none"> MA projects are being implemented at seven sites, viz. Fung Yuen, Ho Sheung Heung, Ramsar Site, Deep Bay Wetland outside Ramsar Site, Sai Wan, Lai Chi Wo and Sha Lo Tung. A new MA project commenced in February 2021 at Mui Tsz Lam and Kop Tong.
			2(d)(ii) Long-term conservation of areas with high ecological value at Sha Lo Tung (SLT).	<ul style="list-style-type: none"> In June 2017, the Chief Executive in Council gave in-principle agreement to the non-in-situ land exchange for the designated private land with high ecological importance at SLT by granting the Shuen Wan Restored Landfill in Tai Po for the long-term conservation of Sha Lo Tung. In 2019, the Environmental Impact Assessment (EIA) report for the proposed golf course development at the Shuen Wan Restored Landfill was approved with condition and the Environment Permit was issued. In February 2021, the Chief Executive in Council granted approval to the Government to proceed with the proposed non-in-situ land exchange. The Government continues to work with the developer on the latter phase of the land exchange for its implementation. The Countryside Conservation Funding Scheme (CCFS) approved the renewal application of the existing MA project at SLT by the same NGO. The new MA project commenced in April 2020 and will run till March 2022. Habitat management and monitoring as well as educational initiatives in collaboration with villagers in Sha Lo Tung will continue.
	e) Explore innovative methods to enhance, support and promote the conservation of rural areas with high ecological value. Timeframe: O	ENB, AFCD	2(e)(i) Revitalisation projects implemented at Lai Chi Wo.	<ul style="list-style-type: none"> Privately funded projects (by Hong Kong Jockey Club Charities Trust and HSBC) are conserving and renovating a group of village houses to develop a Hakka life experiential learning programme with visitor accommodation, and promoting the sustainable development of Lai Chi Wo and nearby areas through social innovation and cross-sector cooperation. An MA project is being implemented to engage the local farming community to rehabilitate the farmlands and enhance the ecological value at Lai Chi Wo (see also Specific Action 2d).
		ENB	2(e)(ii) Countryside revitalisation and ecological conservation projects at key remote countryside areas.	<ul style="list-style-type: none"> The Countryside Conservation Office (CCO) was established in July 2018 to coordinate conservation projects that promote sustainable development of remote countryside. The Advisory Committee on Countryside Conservation was established in July 2019 to advise on the priorities for the conservation and revitalisation works proposals to be carried out by CCO; and to advise on the policy and matters relating to the overall administration, operation and funding approach of CCFS. CCFS was launched in October 2019 and the funding scope was expanded in May 2020. Up to December 2020, ten projects were approved, involving a total amount of about \$60 million.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
		DEVB, CEDD, EPD	2(e)(iii) Rural conservation pilot projects to be implemented in areas such as Tai O, Shui Hau and Pui O, to underpin the sustainable development and conservation of Lantau.	<ul style="list-style-type: none"> In December 2017, CEDD commissioned a consultancy study titled “Ecological Study for Pui O, Shui Hau, Tai O and Neighbouring Areas – Feasibility Study”. After completing a 12-month ecological survey and evaluating the existing ecological threats to these priority sites, the consultant is exploring feasible conservation measures to conserve these sites. 11 Environmental Education and Community Action (EE&CA) projects approved in 2017/18 and 2018/19 have been conducting community engagement and education activities on conservation in South Lantau. Ten projects were completed by end 2020 and the remaining one project will be completed in April 2021. CEDD will launch the one billion Lantau Conservation Fund (LCF) soon to provide finance assistance for NGOs to take forward conservation and related projects, and for the Government to implement minor local improvement works in rural Lantau. Priority will be given to Tai O, Shui Hau and Pui O.
3 - Enhance conservation of natural streams	a) Conduct ecological surveys and compile ecological database on natural streams, especially Ecologically Important Streams (EIS). Timeframe: M	AFCD	3(a)(i) List of EIS updated by 2019.	<ul style="list-style-type: none"> AFCD has conducted field verification for 46 sites of EIS since May 2018. The List of EIS is expected to be updated by Q4 2021.
	b) Improve practices in minor maintenance and hygiene works in natural streams and catchwaters, with a view to minimising ecological impacts arising from these works. Timeframe: S/M	WSD, AFCD	3(b)(i) Pilot projects on adopting ecologically friendly design for catchwaters.	<ul style="list-style-type: none"> In collaboration with several green groups, WSD has commenced a trial to discharge part of the yield at catchwaters in Lantau with a view to revitalising freshwater habitats downstream. In 2018, WSD commissioned consultancy studies on the baseline ecology of irrigation reservoirs and on ecological enhancement of Hung Shui Hang Irrigation Reservoir through pilot ecological floating platforms and post-installation ecological survey. Both studies are in progress. AFCD provided technical input for both studies.
		DSD	3(b)(ii) Planting at selected engineered river channels and water bodies to re-introduce riparian and in-stream habitats with a view to increasing spatial heterogeneity and species richness.	<ul style="list-style-type: none"> Monitoring for trial eco-enhancement works is underway at the channel sections of rivers at Man Uk Bin and Kau Lung Hang. Initial observations for the ongoing trials at the above two rivers have shown signs of improvements in biodiversity. Construction for site trial of a 90m biodiversity enhancement works at Ho Pui river under “Eco-hydraulics Study on Green Channel - Stage 3” commenced in December 2020 for completion in August 2021.
		DSD	3(b)(iii) Adopting green channels design principles in appropriate drainage projects to promote connectivity for freshwater life within the drainage basin.	<ul style="list-style-type: none"> DSD has been adopting sustainable drainage management principles, including the incorporation of environmentally friendly features into drainage projects promoting the conservation of biodiversity in drainage basins. DSD has actively promoted public awareness of sustainable drainage management principles by: <ul style="list-style-type: none"> launching the “EcoDMS” website in June 2018 for introducing ecological and water quality conditions of selected river sections; and organising over 15 visits to DSD project sites including Yuen Long Bypass Floodway, San Tin Polder, Tai Hang Tung Stormwater Storage Scheme, and Happy Valley Underground Stormwater Storage Scheme.
			3(b)(iv) Reviewing current guidelines, and seeking improvements and refining techniques in enhancing biodiversity in river channels and water bodies.	<ul style="list-style-type: none"> R&D studies on wet floodplain technique, floating planters/platforms, channel side planting, flow deflectors, habitat enhancement for macro-invertebrates, propagation of native plants and eco-landscape design are being conducted with a view to developing further techniques and design criteria suitable for the local context to promote ecosystem services and biodiversity in river channels. R&D studies on general landscape design approaches, including maintaining available green space, designing plant matrix and heterogeneous space, and the use of hard landscape to enhance the biodiversity value of DSD facilities. A recommended list of plants with characteristics for attracting wildlife is prepared. Site trials for the general landscape design approaches, including a 12-month post-project monitoring and data analysis, were completed in August 2020. R&D studies on growth characteristic and propagation efficiency of potential native plant species to be used in river sites were commissioned in December 2020. Information collected will be used to identify species for conducting further trials on mass production and planting in projects. DSD is reviewing the current practice note on Environmental and Ecological Considerations for River Channel Design to incorporate the findings from the study on revitalisation of water bodies.
	FEHD, AFCD	3(b)(v) Guidelines for best practices in malaria prevention and control programmes on natural streams prepared by 2018.	<ul style="list-style-type: none"> AFCD and FEHD had incorporated conservation principles into FEHD’s technical circular on malaria control work in streams in 2020. 	

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
	c) Control discharge of effluents from unsewered areas and its adverse impacts on streams. Timeframe: L	EPD	3(c)(i) Provision of sewerage system to unsewered village areas	<ul style="list-style-type: none"> The sewerage construction works for 90% of the targeted unsewered villages/areas have been completed to date. In 2020, EPD obtained funding to provide village sewerage for 32 villages in Sai Kung, Sha Tin, Tai Po, Tseung Kwan O, South Lantau, North District and Tuen Mun, in which 22 have commenced construction works. In addition, EPD plans to seek funding from Legislative Council (LegCo) to initiate two projects to provide village sewerage to nine villages in Lamma Island and Mui Wo.
4 - Maintain habitat connectivity for wildlife	a) Enhance habitat connectivity and establish ecological corridors across the boundary. Timeframe: O	EPD, AFCD	4(a)(i) Enhanced function of the ecological corridor between Shenzhen and Hong Kong through the protection and management of Robin's Nest as country park.	<ul style="list-style-type: none"> AFCD has been liaising with Shenzhen Urban Management Authority on the cooperation and collaboration for the ecological corridor between Wutongshan and the proposed RNCP since November 2018. AFCD met with Shenzhen Futian National Nature Reserve in January 2019. It is planned to visit Futian in 2021 (subject to the COVID-19 situation) to continue the dialogue on enhancing the conservation management of the Deep Bay wetlands.
	b) Review and update guidelines on design of wildlife crossings. Timeframe: S	AFCD	4(b)(i) Guidelines on design of wildlife crossings updated by 2018.	<ul style="list-style-type: none"> AFCD had reviewed international practices in wildlife crossings and uploaded the updated guidelines onto AFCD website in early 2019.
5 - Step up enforcement against wildlife crime	a) Maintain high vigilance and enhance enforcement against illegal poaching or collection of local species and raise public awareness. Timeframe: O	AFCD, HKPF, C&ED	5(a)(i) Inter-departmental and cross-border cooperation, monitoring, education and community involvement to be continued.	<ul style="list-style-type: none"> AFCD has arranged regular patrol and trap search operations, including joint operations with the Society for the Prevention of Cruelty to Animals and HKPF, to combat illegal poaching of local wild animals. For enhancing enforcement against illegal harvesting of Incense Trees, AFCD has set up a task force to conduct targeted patrol since 2017. Frontline staff of HKPF and C&ED have been trained to identify agarwood and detect illegal activities and joint operations have been conducted with HKPF at black spots. Arrangement was also made with the Mainland authority to facilitate cross-boundary knowledge/intelligence exchange on agarwood-related issues. Publicity and education programme on the protection of Incense Tree was conducted, including the Botany STEAM programme organised by the Shiu-Ying Hu Herbarium of the Chinese University of Hong Kong for primary schools.
	b) Establish an inter-departmental task force on wildlife crime, to strengthen collaboration and intelligence exchange. Timeframe: O	AFCD, ENB, HKPF, C&ED	5(b)(i) Regular meetings between the enforcement agencies and green groups. Joint enforcement operations organised according to the trend of wildlife crime.	<ul style="list-style-type: none"> Established in 2016, the inter-departmental Wildlife Crime Task Force conducts regular meetings to discuss the enforcement matters related to wildlife crime.
	c) Strengthen enforcement and legislative measures to combat illegal trade in ivory. Timeframe: O/M/L	ENB, AFCD	5(c)(i) Local trade in ivory (except antique ivory) phased out by end of 2021. Introduction of indictable offences under the Protection of Animals and Plants Ordinance (Cap. 586) by 2018. Increased maximum penalty by 2018.	<ul style="list-style-type: none"> The Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 was enacted by the LegCo on 31 January 2018. Step 1 of the ivory phase-out plan and the increased penalty commenced on 1 May 2018. Step 2 of the plan to ban import and re-export of pre-Convention ivory commenced on 1 August 2018, and Step 3 to ban local trade in ivory will commence on 31 December 2021.
6 - Implement conservation action plans for priority species	a) Establish a standardised mechanism for formulating species action plans (SAPs). Timeframe: S	AFCD	6(a)(i) Guidelines for formulation of SAP produced by mid-2018.	<ul style="list-style-type: none"> The technical guidelines on the standardised formulation mechanism and format of SAPs was published and uploaded onto AFCD website in March 2018.
	b) Formulate action plans for species that require immediate conservation actions. Timeframe: S/M	AFCD	6(b)(i) Chinese Pangolin SAP formulated and implemented by 2018.	<ul style="list-style-type: none"> In 2018, AFCD reviewed existing data obtained from camera trap surveys and other sources, and identified information gaps for the drafting of the SAP. An advisory group involving external experts was formed in 2018 to advise on the drafting of the SAP and held meetings in 2018 and 2019. After consulting key stakeholders, the SAP was finalised for implementation in December 2019. Actions under the SAP include filling knowledge and data gaps, developing a dedicated rescue, rehabilitation, release and post-release monitoring protocol, identifying and managing areas with high threat of feral dogs, building capacity and raising public awareness.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
			6(b)(ii) Incense Tree SAP formulated and implemented by 2018.	<ul style="list-style-type: none"> After consulting HKPF, C&ED and relevant NGOs, AFCD published and uploaded the SAP onto AFCD website in June 2018. AFCD is implementing the SAP. Major actions include risk-based patrols, monitoring using infrared camera traps, engaging quarantine detector dogs to detect smuggled agarwood, protecting large specimens using metallic tree guards and mesh fences, restoring damaged populations and establishing new populations, and providing funding support for relevant research studies and education programmes.
			6(b)(iii) Big-headed Turtle SAP formulated and implemented by 2020.	<ul style="list-style-type: none"> AFCD has commissioned a pilot study to monitor trapping activity in key turtle sites using surveillance cameras in 2017. AFCD has commissioned a camera surveillance and trap search study from late-2019 to mid-2022 to facilitate the preparation of the SAP. AFCD is preparing the SAP for expert group's comments with a view to incorporating the latest findings of the camera trap study. The SAP is expected to be finalised by 2021.
			6(b)(iv) Finless Porpoise SAP formulated and implemented by end of 2018.	<ul style="list-style-type: none"> A one-year study on Passive Acoustic Monitoring (PAM) to look into the usage and diel pattern of Finless Porpoise was completed in mid-2020. Another one-year PAM study commenced in mid-2020 to collect more data to ascertain the temporal trends and to correlate with the on-going long-term visual monitoring. AFCD is preparing the SAP for stakeholders' comments with a view to incorporating the findings of the PAM study. The SAP is expected to be finalised by 2021.
			6(b)(v) Horseshoe Crab SAP formulated and implemented by 2019.	<ul style="list-style-type: none"> A one-year study on field trial of horseshoe crab monitoring in Hong Kong using environmental DNA technique commenced in July 2018 and was completed in January 2020. Another one-year study commenced in August 2019 to collect further field data to examine the occurrence trends of juvenile horseshoe crabs in Hong Kong. Juveniles were recorded at all hotspot sites including Ha Pak Nai, Pak Nai, Luk Keng, Sha Tau Kok, San Tau, Tung Chung Bay, Hau Hok Wan, Shui Hau Wan, and Yi O. A study to survey human exploitation of adult horseshoe crabs and public awareness campaign commenced in June 2020. AFCD is preparing the SAP taking into account the new data obtained. The SAP is expected to be finalised by 2021.
			6(b)(vi) Coral SAP formulated and implemented by 2019.	<ul style="list-style-type: none"> A consultancy study on species diversity, coverage and distribution of corals was completed in 2020, and the SAP is expected to be finalised by 2021. AFCD completed another coral restoration study using 3D-printed reef tiles to restore bio-eroded brain corals in Hoi Ha Wan Marine Park and reported the findings to the MPC in December 2020.
	c) Review and strengthen existing species action plans. Timeframe: M	AFCD	6(c)(i) Chinese White Dolphin SAP updated by 2020.	<ul style="list-style-type: none"> A one-year study on PAM to look into the usage and diel pattern of Chinese White Dolphin was completed in mid-2020. The results revealed relatively drastic inter-annual variation in dolphin usage. Another one-year PAM study commenced in mid-2020 to collect more acoustic data of Chinese White Dolphin to ascertain the temporal trends and to correlate with the on-going long-term visual monitoring. The SAP is being prepared and is expected to be finalised by 2021.
			6(c)(ii) Romer's Tree Frog SAP updated by end of 2019.	<ul style="list-style-type: none"> AFCD reviewed the existing SAP and prepared the first draft of the revised SAP in 2019. The SAP is expected to be updated by 2021 after consulting stakeholders and taking into account the assessment result of the List of Threatened Species on Romer's Tree Frog.
			6(c)(iii) Three-banded Box Turtle SAP updated by 2020.	<ul style="list-style-type: none"> In 2017, AFCD completed a study to elucidate the genetic affinity of the Three-banded Box Turtles under the captive breeding programme. In 2017, AFCD completed a consultancy survey in key turtle sites to assess the intensity of trapping activity. AFCD has commissioned a camera surveillance and trap search study from late-2019 to mid-2022 to facilitate the preparation of the SAP. AFCD is preparing the updated SAP for expert group's comment with a view to incorporating the latest findings of the camera trap study. The SAP is expected to be finalised by 2021.
			6(c)(iv) Black-faced Spoonbill SAP updated by 2021.	<ul style="list-style-type: none"> The consultancy studies on the habitat use and diet composition of Black-faced Spoonbill which commenced in 2018 were completed. AFCD has reviewed the existing SAP and is preparing the first draft of the revised SAP.
			6(c)(v) Green Turtle SAP updated by 2019.	<ul style="list-style-type: none"> In 2017, AFCD completed a survey of ghost nets and removed these nets in the bay area of Sham Wan; deployed a remote monitoring system to enhance surveillance; and commissioned dive surveys in the bay to monitor turtle occurrence and habitat conditions. The legislative amendments for the expansion of Sham Wan Restricted Area and extension of restricted period to enhance the protection of Green Turtle was completed and took effect on 1 April 2021. The SAP is being prepared to incorporate post-extension actions and is expected to be finalised by 2021.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
7 - Improve management of invasive alien species	a) Build up capacity for the management of invasive alien species. Timeframe: M	AFCD	7(a)(i) An inventory of alien species prepared by 2020. High-risk invasive alien species identified, with management measures formulated and implemented, by 2021.	<ul style="list-style-type: none"> In November 2018, AFCD commissioned a consultancy study that reviewed international practices for management of invasive alien species and formulated a risk assessment protocol for prioritising management efforts. Risk assessment conducted on alien herpetofauna found that none was of high risk, while four species were of moderate risk. The study was completed in mid-2020. Study findings had been presented at meetings of LegCo Panel and ACE-NCSC. Risk assessment would be conducted on other prioritised taxa in the future using the protocol developed.
	b) Enhance the monitoring, management and control plans for target invasive alien species. Timeframe: O	AFCD	7(b)(i) Effective control of Sonneratia in Inner Deep Bay by 2021. 7(b)(ii) Enhanced control of Mikania.	<ul style="list-style-type: none"> In 2020, 7 950 Sonneratia trees were removed from Inner Deep Bay. AFCD updated the “Nature Conservation Practice Note - Clearing Mikania” to provide general technical guidance to relevant government departments, landscape contractors, and interested parties on the clearance of Mikania in 2020. AFCD took stock of the current programme of Mikania removal to maintain/enhance the ecological value of SSSIs, and will continue to review the need to extend Mikania control work through adaptive management in 2020.
	c) Conduct education programmes to raise awareness and to discourage release of alien species to the wild. Timeframe: O	AFCD	7(c)(i) Publicity materials on mercy release produced and distributed, and education programmes including seminars organised.	<ul style="list-style-type: none"> Since 2017, AFCD has produced posters about mercy release for distribution to relevant organisations and display at various locations (e.g. government venues, wet markets and ferry piers). AFCD has also been disseminated messages to discourage mercy release through advertisements on outdoor media, relevant publications, social media, mini-movies and public seminars in recent years.
8 - Control the environmental release of genetically modified organisms	a) Continue to control the environmental release of genetically modified organisms (GMOs), monitor the development of related technology and expand screening programme. Timeframe: O	AFCD	8(a)(i) Implementation of control measures on GMOs in accordance with requirements of Cartagena Protocol on Biosafety.	<ul style="list-style-type: none"> AFCD is conducting inspections at border control points, undertaking market surveys on the prevalence of GMOs in local markets and farms and distributing leaflets to educate and remind stakeholders about requirements under the Genetically Modified Organism (Control of Release) Ordinance (Cap. 607). AFCD is keeping in view the developments of GMOs through review of international practices and dialogues with relevant sectors in 2020-21.
9 - Incorporate biodiversity considerations in planning and development process	a) Update the Sustainability Assessment system, to better integrate biodiversity considerations in major policies and plans of the Government. Timeframe: S	ENB, AFCD	9(a)(i) Computer-aided Sustainability Evaluation Tool (CASET) updated to incorporate the revised biodiversity parameters by 2018.	<ul style="list-style-type: none"> The updated CASET with revised biodiversity parameters incorporated was launched in December 2018.
	b) Integrate biodiversity considerations in the territorial development strategy. Timeframe: O	PlanD, AFCD	9(b)(i) Biodiversity considerations taken into account in relevant study tasks of Hong Kong 2030+, and reflected in the territorial development strategy. Finalised territorial development strategy under Hong Kong 2030+ to guide the future planning, land and infrastructure development and the shaping of the built and natural environment of Hong Kong beyond 2030.	<ul style="list-style-type: none"> The public engagement exercise of the Hong Kong 2030+ study was completed in April 2017. PlanD is continuing with the technical assessments including the Strategic Environmental Assessment and Sustainability Assessment. Biodiversity considerations will be strengthened where appropriate in the finalised territorial development strategy. The target is to complete the Hong Kong 2030+ study in first half 2021.
	c) Update and amend Chapter 10 of the Hong Kong Planning Standards and Guidelines (HKPSG) by incorporating relevant guidelines on biodiversity considerations. Timeframe: M	PlanD, AFCD	9(c)(i) Chapter 10 of HKPSG amended by mid-2019.	<ul style="list-style-type: none"> PlanD and AFCD completed the incorporation of relevant guidelines on biodiversity considerations into Chapter 10 – Conservation in December 2019. The revised Chapter 10 was promulgated in March 2020.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
	d) Enhance the practices in addressing ecological impacts of projects through environmental impact assessment process. Timeframe: O	EPD, AFCD	9(d)(i) Review of the international practices on incorporating biodiversity considerations in the planning and development process.	<ul style="list-style-type: none"> In June 2020, EPD organised four EIA Ordinance Users Liaison Group meetings with the respective EIA stakeholders (including government sectors, private sectors, public corporations, practitioners and contractors), reporting the findings on the reviews of the international practices on EcoIA and local cases. Around 120 participants attended the meetings. EPD has compiled a checklist to facilitate EIA practitioners in preparing, reporting and reviewing EcoIA chapters of EIA reports. In December 2020, EPD conducted two workshops (with 200 participants) to introduce the new checklist and its applications to the relevant stakeholders and to seek their views on the checklist.
10 - Promote biodiversity in urban environment	a) Formulate an urban forestry strategy that contributes to a sustainable urban landscape and promotes the appreciation of urban biodiversity. Timeframe: S	Greening, Landscape and Tree Management Section (GLTMS)	10(a)(i) Urban Forestry Advisory Panel (UFAP) set up in January 2017. Urban Forestry Management Strategy formulated by 2018. Qualifications Framework Specification of Competency Standards (SCS) on urban arboriculture, horticulture and landscape works developed.	<ul style="list-style-type: none"> UFAP was set up in January 2017 and has been in operation. As reported at the LegCo Panel on Development Meeting on 27 February 2018, the Government adopts a five-pronged strategy that includes undertaking the annual Tree Risk Assessment and Management as part of the precautionary measures before the wet season, implementing a dedicated regime for high-risk trees, promoting proper tree care on private properties, building capacity in the workforce and stepping up community education and involvement. The SCS for the arboriculture and horticulture industry was launched on 9 December 2019.
	b) Promote diversification of our soft landscapes and optimise use of native species for enriching urban biodiversity. Timeframe: M	GLTMS	10(b)(i) Soft landscape specifications standardised between Hong Kong and Guangzhou. Availability of native seed stock improved. Government workflows and contracts reviewed to set baseline standards.	<ul style="list-style-type: none"> The Hong Kong Institute of Landscape Architects (HKILA) commissioned a consultant to study the Standardisation of Soft Landscape Planting Materials Specification for Guangdong Province and Hong Kong in November 2018. The consultant has sent the draft report to HKILA and its relevant counterparts for endorsement. HKILA targets to publish the report in Q2 2021 (slightly postponed from Q1 2021). GLTMS released the Street Tree Selection Guide (STSG) in December 2018 to promote vegetation diversity and the use of native tree species. GLTMS liaised with AFCD to jointly promote the use of native tree species by supplying native tree stocks produced from AFCD's nursery for departments' uses. Initial review of Government contracts and workflows has been completed. Findings and recommendations will be available in Q1 2021.
	c) Promote the concept of Place Ecology in urban landscape designs. Timeframe: M	GLTMS	10(c)(i) Concept of Place Ecology promoted through a series of public seminars and talks organised/attended by GLTMS. Promotion of place-based approach with vegetation diversity with complementary species mix as a key component.	<ul style="list-style-type: none"> GLTMS organised a series of seminars to introduce the contribution of urban landscape to augmenting liveability and improving resilience. DEVB implemented a trial scheme to transform an existing traffic island at Wylie Road into a rain garden, and handed over the planting to the maintenance department in February 2019. GLTMS released the STSG in December 2018 for the reference of concerned departments and landscape practitioners. Promotion activities including advertorials at local newspapers, TV and radio interviews, and sharing sessions for Government departments, landscape architecture professionals and landscape practitioners were carried out from December 2018 to January 2019.
	d) Promote knowledge building and sharing among the public and private sectors in the latest landscape concepts, designs and technologies that contribute to a sustainable urban ecosystem. Timeframe: M/L	GLTMS, Works departments AFCD	10(d)(i) A series of outreach events organised by GLTMS and collaborating organisations. A holistic EDB Quality Framework System on building capacity and proper arboricultural practices developed. 10(d)(ii) The BEAM Plus New Buildings Manual updated to incorporate incentives to promote biodiversity in building projects.	<ul style="list-style-type: none"> GLTMS has organised a series of seminars, talks and exhibitions to raise public awareness on urban forestry, through collaborations with universities, professionals, overseas experts and other relevant departments The SCS for the arboriculture and horticulture industry was launched on 9 December 2019 to uplift the quality of practitioners and the professional standing of the industry. GLTMS held the Hong Kong 2020 International Urban Forestry Conference on 16 and 17 January 2020, inviting renowned local and overseas experts to share their insights and latest research findings on topics of city greening, resilient landscape and tree care in constrained environment. AFCD worked with the Hong Kong Green Building Council to incorporate biodiversity considerations in building projects in the revision of the BEAM Plus New Buildings manual. Launched in September 2019, the BEAM Plus New Buildings V2.0 includes credit points to provide incentives for promoting ecologically responsible designs and measures to protect natural habitats and enhance biodiversity.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
	e) Explore opportunities to enhance the value of urban parks for biodiversity conservation and education. Timeframe: M	LCSD	10(e)(i) Further enhancement of the existing conservation corners to maintain a natural habitat and environment for attracting wildlife. Signage and educational boards displayed at the conservation corners for educational purposes. The existing educational programmes enriched to launch guided visit programmes to the conservation corners for the public and local schools to raise the public's awareness of wildlife conservation.	<ul style="list-style-type: none"> The Horticultural Education Exhibition 2020 featuring "Greening at Home" and the Zoological Education Exhibition 2020 theming "Learn it! Feel it! Find it!" originally planned to be held in November and December 2020, were both cancelled due to COVID-19. To maintain the sustainable promotion on biodiversity and conservation of wildlife, LCSD will continue to organise similar horticultural and zoological exhibitions in 2021 if the situations warrant.
	f) Adopt the concept of revitalising water bodies in large-scale drainage improvement works and planning drainage networks for New Development Areas (NDAs). Timeframe: O	DSD	10(f)(i) Study on revitalisation of water bodies to explore practicable options for applying the blue-green concept in large-scale drainage improvement works and planning drainage networks for new development areas, with an aim to promote greening, biodiversity, beautification and water friendliness in addition to achieving efficient drainage.	<ul style="list-style-type: none"> The study on "Revitalisation of Water Bodies" was completed in September 2020. DSD has established an inventory of water bodies and devised a methodology to evaluate revitalisation potential of river channels. Tai Wai Nullah, Fo Tan Nullah and Jordan Valley Nullah have been identified for revitalisation. Agreement No. CE 7/2019 (DS) – River Revitalisation and Flood Resilience Planning in Yuen Long South – Feasibility Study commenced in November 2019. The study explores revitalisation schemes for three river channels (i.e. Yuen Long (West) Nullah, Tin Tsuen Channel and Yuen Long Nullah) and three watercourses in Yuen Long South Development Area. A study on "Review and Selection of River Sections for Revitalisation" will commence in January 2021 to take forward the concept of "river in the city".
			10(f)(ii) Revitalisation of urban nullahs into green river corridors through the urban area.	<ul style="list-style-type: none"> The reconstruction and rehabilitation of the upstream and midstream sections of Kai Tak River commenced in mid-2018. Remaining works for upstream section was completed in December 2019. The construction works for Revitalisation of Tsui Ping River commenced in July 2020 and is targeted for completion in Q3 2024. A site trial of in-stream filtering system is in progress and scheduled for completion in Q1 2021. The construction works for Revitalisation of Jordan Valley Nullah commenced in March 2020 and targeted for completion in 2022. Revitalisation of Tai Wai Nullah and Fo Tan Nullah was upgraded to Cat B in August 2019. The investigation and preliminary design commenced in 2020. The construction works is scheduled to commence in 2024 for completion in 2029. The revitalisation of Yuen Long Nullah was at investigation stage. The construction works is scheduled to commence in 2027 after completion of the Nullah's drainage improvement works, and is targeted for completion in 2029.
		DSD, CEDD	10(f)(iii) Design of Tung Chung River Park to promote water-friendly culture and to preserve the ecology of the river.	<ul style="list-style-type: none"> The River Park is proposed to be divided into "Revitalisation Zone" (first phase) and "Conservation Zone" (second phase) for promotion of water-friendly culture and preservation of the ecology of the river respectively. The detailed design for the first phase is completed. Subject to funding approval, CEDD targets to commence construction works for the first phase of River Park (under Tung Chung New Town Extension Project) in mid-2021.
		DSD, CEDD	10(f)(iv) Blue-green infrastructure at Anderson Road Quarry NDA.	<ul style="list-style-type: none"> CEDD commenced construction works on the flood attenuation lake cum park, underground stormwater tank and drainage system at Anderson Road Quarry NDA in December 2016. Landscaping works will commence in Q1 2021 for the phased completion starting in 2023/24. The consultancy for the Study on Operation & Maintenance of the Anderson Road Quarry Flood Lake Park was commissioned in August 2019.
11 - Promote sustainable fisheries	a) Designate and manage Fisheries Protection Area(s) (FPAs) to protect important fish spawning and nursery grounds Timeframe: L	FHB, AFCD	11(a)(i) Designation of FPAs.	<ul style="list-style-type: none"> Further baseline information on potential FPA is being collected and analysed. Engagement of stakeholders to solicit views on designation of FPAs is underway.
	b) Continue to conduct fisheries monitoring programme in Hong Kong waters. Timeframe: O	AFCD	11(b)(i) Assessment of effectiveness of fisheries management measures completed in early 2018.	<ul style="list-style-type: none"> The study for monitoring the fisheries resources was completed in 2018. The results generally demonstrated signs of recovery of the fisheries resources in Hong Kong.
			11(b)(ii) Study on ichthyoplankton, zooplankton, juvenile fish and crustacean completed in early 2018.	<ul style="list-style-type: none"> The consultancy study for providing updated information on ichthyoplankton, zooplankton, juvenile fish and crustacean around the potential FPAs was completed in 2018.
			11(b)(iii) Inspection of artificial reefs completed by 2019.	<ul style="list-style-type: none"> The consultancy study on underwater fisheries survey in artificial reefs (ARs) was completed in 2019. High fish species richness was recorded in the ARs, which mirrored the findings of the AR survey conducted in 2011.

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			11(b) (iv) Developing a fisheries monitoring programme in Hong Kong.	<ul style="list-style-type: none"> The consultancy study for developing options for a fisheries monitoring programme in Hong Kong commenced in August 2019. The study is anticipated to be completed in mid-2022.
	<p>c) Provide funding support to encourage local fishing community to adopt sustainable fisheries operations.</p> <p>Timeframe: O</p>	AFCD	11(c)(i) Applications for the Sustainable Fisheries Development Fund (SFDF) processed to provide funding to projects that support the development of sustainable fisheries.	<ul style="list-style-type: none"> Applications are being invited on a continuous basis. As at end of December 2020, 28 applications involving a total commitment of over \$159 million have been approved, including 14 for promoting the development of aquaculture, two for promoting fisheries-related eco-tourism, two for assisting the development of capture fishery and 10 for promoting the modernisation of fisheries equipment.
	<p>d) Conduct studies on measures to prevent cormorant predation on commercial pond fish in Deep Bay area.</p> <p>Timeframe: S</p>	AFCD	11(d)(i) Measures to prevent cormorant predation tested for effectiveness, and promoted to fishpond operators.	<ul style="list-style-type: none"> Two consultancy studies on cormorant predation and the field trial of the recommended cormorant prevention measure were completed in 2017 and 2019, respectively. Fishpond operators were informed of the recommendations of the study, including the recommended wire density as well as factors to be considered by operators (e.g. cost of materials, time of installation, species, size and quantity of fish cultured in pond) when planning the use of preventive measures.
12 - Promote sustainable agriculture	<p>a) Promote the modernisation and sustainable development of local agriculture as an integral part of the New Agriculture Policy.</p> <p>Timeframe: O</p>	FHB, AFCD	12(a)(i) Establishment of an Agricultural Park (Agri-Park).	<ul style="list-style-type: none"> Finance Committee's approval for Phase 1 was granted in July 2020. LandsD and CEDD have commenced the corresponding land resumption and engineering works in August and December 2020, respectively. Phase 1 will be completed in stages from Q4 2021 to Q1 2023.
		FHB, DEVB, AFCD	12(a)(ii) Study on Agricultural Priority Areas (APAs).	<ul style="list-style-type: none"> The consultancy study for identifying quality agricultural land for possible designation as APAs commenced in late 2018. The consultant has completed the baseline review to identify major clusters of farmland in Hong Kong and is formulating selection criteria for APAs with reference to local information as well as relevant overseas practices. The study is expected to be completed by the end of 2022.
		AFCD	12(a)(iii) Applications for the Sustainable Agricultural Development Fund (SADF) processed to provide funding to projects that support the development of sustainable agriculture.	<ul style="list-style-type: none"> Applications are being invited on a continuous basis.
		AFCD	12(a)(iv) Assistance provided to farmers to raise productivity through modern agro-technologies and environmentally friendly farming practices (including organic farming).	<ul style="list-style-type: none"> AFCD has continued to conduct farm visits, seminars and workshops to assist farmers in adopting modern agro-technologies (including farm mechanisation and automation) and environmentally friendly farming practices (including organic farming). AFCD has continued to identify potential agro-technology projects for collaboration with local research institutions or agricultural organisations.
13 - Conduct biodiversity survey	<p>a) Enhance territory-wide biodiversity surveys on major groups of terrestrial and freshwater species.</p> <p>Timeframe: O</p>	AFCD	13(a)(i) Programme of AFCD biodiversity survey reviewed, and survey manual compiled by 2018.	<ul style="list-style-type: none"> During 2017-2018, AFCD consolidated and reviewed the survey objectives and sampling designs currently adopted in the biodiversity survey programme. Survey protocols were compiled, and species checklists of major taxa groups were updated in early 2019.
			Existing species checklist of major taxa groups updated by 2018.	
	<p>b) Conduct baseline and long-term surveys of priority marine habitats and species.</p> <p>Timeframe: O</p>	AFCD	13(b)(i) Long-term coral monitoring plan devised by 2020.	<ul style="list-style-type: none"> AFCD completed a consultancy study on coral bleaching and bioerosion in Hong Kong. Baseline coral distribution and diversity data at 33 major coral areas in Hong Kong were collected, and long-term coral monitoring plan was devised (see also Specific Action 6b(vi)).
			13(b)(ii) Octocorals species list updated by 2019.	<ul style="list-style-type: none"> AFCD commissioned a study on local octocoral and black coral distribution and diversity at 28 hotspots in Hong Kong. The species list is expected to be updated by 2021.
			13(b)(iii) Reef fish species list updated by 2019.	<ul style="list-style-type: none"> AFCD completed a consultancy study on reef fish diversity in Hong Kong. The reef fish species list was updated in 2019 upon the completion of the field surveys.
			13(b)(iv) Macroalgae species list updated by 2019.	<ul style="list-style-type: none"> AFCD completed a study on the diversity and distribution of macroalgae in Hong Kong. The macroalgae species list was updated in 2019 upon the completion of the field surveys.
13(b)(v) Marine park surveys completed by 2021.	<ul style="list-style-type: none"> Coral surveys at three marine parks were completed in 2016. In 2019, AFCD commissioned a 24-month coral monitoring as part of the long-term monitoring programme for Tung Ping Chau and Hoi Ha Wan Marine Parks. Three out of four seasonal surveys have been completed. Quarterly fisheries resources surveys in all existing marine parks and marine reserve and potential marine parks were completed in 2018. Study findings were reported in the MPC meeting in April 2020. Since Q4 2018, a 20-month juvenile fish surveys have commenced to investigate the species diversity and abundance of juvenile fish at different habitats of marine parks and marine reserve. Study findings were reported in the MPC meeting in December 2020. 			

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14 - Conduct species assessment	a) Compile a list of threatened species for Hong Kong to guide conservation actions. Timeframe: M/L	AFCD	14(a)(i) List of threatened species drawn up for priority groups by 2021.	<ul style="list-style-type: none"> The institutional framework for compiling the Hong Kong List of Threatened Species (LTS) was formulated in 2018, and over 100 experts, including AFCD officers and external experts, were appointed to serve as data compilers, assessors and reviewers for the selected taxa. In May and June 2018 and September 2020, AFCD arranged three training sessions for over 70 personnel involved in the assessment process. All groups are currently at varying stages of the assessment and review process. It is anticipated that the first batch of assessment results covering amphibians and reptiles, bats, waterbirds and marine mammals would be finalised in 2021.
15 - Collate information on terrestrial and marine habitats	a) Compile relevant information on marine habitats for guiding conservation of marine habitats. Timeframe: M	AFCD	15(a)(i) Habitat maps of marine ecosystem prepared by 2021.	<ul style="list-style-type: none"> AFCD is reviewing existing information for the preparation of a habitat map of marine ecosystem. A pilot mapping study of a coral habitat at Sharp Island was completed in 2019. AFCD commissioned a consultancy study in Q4 2018 to conduct a habitat mapping study for Tung Ping Chau Marine Park. All surveys have been completed while data interpolation is underway. The final report will be submitted in early 2021. AFCD commissioned a study in 2020 to conduct a habitat mapping study for no-anchoring areas in Hong Kong and the study is expected to be completed in 2021.
	b) Review and develop a standardised classification of habitat types in Hong Kong, and prepare a Geographic Information System-based habitat map. Timeframe: M	AFCD	15(b)(i) Territorial habitat map of terrestrial ecosystems prepared by 2019.	<ul style="list-style-type: none"> In October 2019, AFCD commissioned a consultancy study, namely "Territory-wide Study on Hong Kong's Terrestrial Habitats Using Remote Sensing and GIS". The Study is expected to be completed by Q2 2021.
16 - Improve sharing of knowledge	a) Develop a web-based information hub to provide a one-stop shop for information on local biodiversity. Timeframe: M	AFCD	16(a)(i) A web-based information hub on biodiversity launched by 2020.	<ul style="list-style-type: none"> AFCD reviewed relevant local and international examples to explore potential elements for the web-based information hub. A workshop was held in January 2018 to seek various stakeholders' comments and recommendations on the information hub and GIS platform. A consultancy study commenced in early 2019 to explore the software requirements, structure and design for the information hub had been completed. The construction of the information hub is underway, and the first phase, covering the website and its associated databases, is expected to be completed by the end of 2021.
	b) Develop a Geographic Information System-based platform to facilitate sharing of data among different groups of users. Timeframe: L	AFCD	16(b)(i) Protocol of data-sharing developed. IT framework and data requirement of the GIS platform developed by 2020.	<ul style="list-style-type: none"> In 2017, AFCD prepared a summary of the major marine and terrestrial biodiversity datasets from a list of potential data providers, and drafted a guide for managing sensitive biodiversity data. A stakeholder workshop was held in January 2018 and a list of local experts who are willing to share biodiversity data has been consolidated. A consultancy study commenced in early 2019 to explore technical options (see also Specific Action 16(a)(i)) had been completed. Data collection and consolidation for the GIS platform are underway, and the construction of the GIS platform (phase 2) is expected to commence after the completion of the phase 1 (see Specific Action 16(a)(i)).
17 - Identify essential ecosystem services	a) Commission a study on the ecosystem services provided by major habitat types in Hong Kong. Timeframe: M	AFCD	17(a)(i) Baseline profile of ecosystem services of major habitats in Hong Kong available by 2020.	<ul style="list-style-type: none"> In March 2020, AFCD commenced a 24-month consultancy study to obtain baseline information of ecosystem services provided by major habitats in Hong Kong. The study is expected to be completed by Q1 2022.
18 - Enhance understanding on traditional knowledge	a) Encourage research on traditional knowledge relevant to conservation and sustainable use of biodiversity. Timeframe: L	AFCD	18(a)(i) Studies on relevant topics conducted.	<ul style="list-style-type: none"> Research to document and promote traditional knowledge and practices in the sustainable use, preservation, restoration, and management of biological resources and ecosystem services has been listed as one of the priority research topics to be supported under Action 19.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
	b) Encourage the wise use of natural resources using traditional knowledge, especially through the MA scheme. Timeframe: O	AFCD	18(b)(i) MA projects that promote traditional knowledge in conservation of biodiversity continue to be implemented. Education activities that promote traditional knowledge in conservation of biodiversity organised.	<ul style="list-style-type: none"> Several MA projects have adopted traditional wet crop agriculture (e.g. in Long Valley and Lai Chi Wo) and fishpond drain-down practice (e.g. in fish ponds within and outside Ramsar Site), demonstrating the wise use of natural resources in contributing to the conservation of biodiversity in the last few years. After conclusion of the Long Valley MA project due to land resumption starting from late 2019, the eco-agriculture practice continues to take place in the MA project in Ho Sheung Heung.
19 - Provide funding support to research and studies	a) Conduct studies that would directly and significantly contribute to the conservation of biodiversity. Timeframe: O	AFCD	19(a)(i) Studies on priority topics that support the implementation of BSAP commissioned.	<ul style="list-style-type: none"> In September 2017, ACE-NCSC discussed the approach for providing and coordinating funding to support biodiversity research and studies, and supported the priority research topics proposed. AFCD has commissioned various studies on priority topics including a number of surveys and consultancy studies that support the implementation of BSAP in the last few years. Details of the studies are provided under Specific Actions 6b, 6c, 7a and 13b.
	b) Encourage research to fill key information gaps on local biodiversity, through funding support by the Environment and Conservation Fund (ECF). Timeframe: O	EPD, AFCD	19(b)(i) Studies on priority topics that fill key information gaps supported by ECF. Provide funding support for meritorious research projects on the subject selected by the ECF through the competition mechanism.	<ul style="list-style-type: none"> Since 2016, the ECF Environmental Research, Technology Demonstration and Conference projects funding scheme has approved 49 applications related to biodiversity, involving a total commitment of \$52.1 million.
	c) Support research on sustainable agriculture and fisheries practices and management. Timeframe: O	AFCD	19(c)(i) Projects that support the development of sustainable fisheries supported by the Sustainable Fisheries Development Fund. 19(c)(ii) Projects that support the development of sustainable agriculture supported by the Sustainable Agricultural Development Fund.	<ul style="list-style-type: none"> Refer to Specific Action 11c. Refer to Specific Action 12a.
20 - Promote biodiversity awareness	a) Review and enhance education activities that promote biodiversity, being conducted by AFCD. Timeframe: M	AFCD	20(a)(i) Review of HKWP's public awareness promotion and education programmes completed by 2018.	<ul style="list-style-type: none"> Consultancy studies on the performance of HKWP's public awareness promotion and education programmes in raising public awareness of wetland conservation were completed in 2018.
			20(a)(ii) Exhibition and education facilities of HKWP revamped by 2021.	<ul style="list-style-type: none"> The exhibition galleries of HKWP were revamped with interactive exhibits and improvement works to enhance experiential learning experience. The enhancement of education facilities in the Resource Centre and Wetland Discovery Centre was completed in 2018.
			20(a)(iii) Education programmes including Inter-school Bird Race and Family Farming Experience Programme organised at HKWP.	<ul style="list-style-type: none"> In view of the situation of COVID-19, HKWP was temporarily closed and most of the education programmes were suspended / rescheduled. The channel of promotion was switched to social media.
			20(a)(iv) Public education programmes on marine biodiversity organised.	<ul style="list-style-type: none"> AFCD continued to organise a wide range of public education events on marine biodiversity, including exhibitions, seminars, field trips, coastal clean-ups, ambassador programme, student workshop, self-guided tours and competitions. Programmes organised in 2020 included "Hong Kong Marine Biodiversity Roving Exhibition", "Ting Kok Coastal Conservation Plan" and "Hong Kong Underwater Photo and Video Competition". AFCD also collaborated with tertiary institutions to organise a train-the-trainers programme (with the Education University of Hong Kong) and a summer course for secondary students (with the Hong Kong University of Science and Technology) in 2020. AFCD launched the "Hong Kong Marine Classroom" website since 2019, and produced a booklet for 2020-2021 education programmes.
			20(a)(v) Education programmes including school and public programmes organised in country parks.	<ul style="list-style-type: none"> AFCD regularly organises various biodiversity education programmes in country parks, including school visit programmes and teachers' training tailored for different school levels, as well as public programmes such as tree planting events, workshops, nature appreciation guided tours, talks and roving exhibitions. While most education programmes were suspended due to COVID-19, 38 schools joined the education programmes in 2020. In October 2020, AFCD commissioned a consultancy study to develop curriculum-oriented outdoor learning programmes for primary and secondary schools in country parks.

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
	b) Promote awareness and community involvement through citizen science monitoring programmes. Timeframe: M	AFCD	20(b)(i) Members of the public engaged to participate in citizen science projects.	<ul style="list-style-type: none"> AFCD is co-organising/supporting various citizen science monitoring programmes with NGOs/institutions, viz. Hong Kong Reef Check (Reef Check Foundation), Coral Saver and Ghost Gear Detective (WWF-Hong Kong) and Coral Restoration Workshop (Reef Check Foundation and the University of Hong Kong). Volunteers were trained to assist the monitoring of trees and bird nest boxes at HKWP. In addition, around 35 members of the public were trained by the Hong Kong Bird Watching Society to participate in the International Black-faced Spoonbill Census 2020 held at HKWP in January 2020.
	c) Organise annual festivals to provide a platform for engaging partners and relevant stakeholders in promoting biodiversity to the public. Timeframe: O	AFCD	20(c)(i) Education programmes including guided tours, workshops, and volunteer programmes organised. NGOs engaged as partners in organising events.	<ul style="list-style-type: none"> AFCD has been planning for a new Biodiversity Education Programme with thematic focus to replace the annual festival. The new programme is expected to be launched in Q1 2021. A social media publicity campaign “Be Part of Nature” was launched in collaboration with NGOs during the International Biodiversity Week in May 2020. In 2020, 26 applications were approved under the Subventions for Biodiversity Education with a total approved funding amount of \$3.93 million.
	d) Conduct a survey on knowledge and attitudes towards biodiversity in Hong Kong. Timeframe: S	AFCD	20(d)(i) Baseline level and change of public knowledge and attitude to biodiversity documented.	<ul style="list-style-type: none"> AFCD commissioned a study to document the baseline level of the knowledge and attitude of the general public and stakeholder groups (teachers and planning and development professionals) towards biodiversity in Hong Kong, to inform future education programmes and to track the change of attitude and awareness in relation to the implementation of BSAP. Completed in 2018, the survey results were published on AFCD’s website.
	e) Encourage partnership between Government and business sector in biodiversity conservation. Timeframe: M	AFCD	20(e)(i) Mainstreaming events organised for various sectors including businesses, engineering, agriculture and fisheries.	<ul style="list-style-type: none"> Six mainstreaming events, including conference, seminar, blog and media interview, were co-organised by AFCD and relevant B/Ds or partners in 2020. Topics covered included BSAP, urban forestry, ecological assessment, eco-shoreline, and sustainable development.
	f) Encourage programmes to promote biodiversity education and community involvement, through funding support by the Environment and Conservation Fund. Timeframe: O	EPD, AFCD	20(f)(i) Provide funding support for meritorious biodiversity-related EE&CA projects selected by the EE&CA Projects Vetting Sub-committee.	<ul style="list-style-type: none"> “Biodiversity” has been set as a priority theme for EE&CA project applications since 2016/17. In 2019/20, 12 biodiversity-related applications were approved with a total funding amount of around \$9.9 million. In the first round of 2020/21 application, four biodiversity-related applications were approved with a total funding amount of around \$4.2 million. The vetting process of the second round of application in 2020/21 is now underway.
21 - Promote biodiversity in education	a) Incorporate the concept of biodiversity in the school curriculum. Timeframe: M	AFCD, EDB	21(a)(i) The concept of biodiversity is already included in the school curriculum.	<ul style="list-style-type: none"> The concept of biodiversity has already been included in the school curriculum, including General Studies (P1-6), Science (S1-3), Biology (S4-6), Combined Science (S4-6) (Biology part) and Integrated Science (S4-6). The curricula will be kept under review for updating as appropriate.
	b) Engage NGOs to provide capacity building for teachers on biodiversity. Timeframe: L	AFCD, EDB	21(b)(i) Teachers’ seminars/ workshops on biodiversity organised.	<ul style="list-style-type: none"> In the 2020/21 school year, EDB planned to organise some professional development programmes (PDPs) related to biodiversity for secondary school teachers in March 2021 to June 2021. As part of the Subventions 2020 under Specific Action 20c, AFCD provided funding support to NGOs to organise teachers’ training courses and develop teaching resources to support teachers in carrying out biodiversity education.
			21(b)(ii) Five sets of pamphlets and six sets of display panels on biodiversity conservation updated and produced by HKWP by 2019. HKWP website revamped by 2019.	<ul style="list-style-type: none"> In 2018, HKWP’s education materials, including five sets of pamphlets and six sets of mobile display panels, were updated and produced to support teachers in conducting education activities on biodiversity conservation. In 2018, HKWP’s Teachers’ Page was revamped to facilitate access to new teaching resources, featuring new teaching resources (e.g. self-visit lesson plan and pictorial guide for interpretation).
c) Enhance the resources for early childhood education on nature conservation. Timeframe: S/M	AFCD, EDB	21(c)(i) Learning and Teaching (L&T) packages for kindergarten students’ activity-based learning at HKWP and Lions Nature Education Centre (LNEC).	<ul style="list-style-type: none"> EDB commissioned the project to develop L&T resources for kindergarten education at HKWP and LNEC. The L&T packages (including Teacher Guide, Teacher Supplementary Information Booklet, Student Booklet and Parent Leaflet) were available for download on AFCD and EDB’s websites. The educational programmes “Wetland Footprints” in HKWP and “Countryside Adventure” in LNEC were rolled out in the 2018/19 school year. 	

Action	Specific Action	B/Ds	Expected Deliverables	Summary of progress
			21(c)(ii) Kindergarten resource centre set up in LNEC.	<ul style="list-style-type: none"> EDB has commissioned a project to design a kindergarten resource centre to be set up at LNEC in 2018. Demonstration of the initial design of the resource centre, development of L&T package (including Teacher Guide and Parent Leaflet), pilot training sessions for kindergarten teachers and AFCD staff and seminars for parents of kindergarten students were completed. ArchSD would serve as the works agent for the modification works at LNEC. In June 2019, AFCD submitted a bid for Minor Building Works for the construction of an outdoor free exploration field and indoor exhibition area. ArchSD is evaluating the bid.
22 - Promote sustainable consumption	<p>a) Conduct public engagement and explore relevant measures on promotion of sustainable consumption of biological resources.</p> <p>Timeframe: O</p>	ENB/ EPD	22(a)(i) The Council for Sustainable Development (SDC) has conducted a public engagement on promotion of sustainable consumption of biological resources and would put forward recommendations for the Government's consideration.	<ul style="list-style-type: none"> "Sustainable consumption of biological resources" has been set as a special theme for the second round of ECF's EE&CA project applications in 2017/18 and a priority area in the 13th round of applications for the Sustainable Development Fund (SDF). Five projects involving a total of \$5.5 million in funding have been carried out. EDB will continue to organise a PDP for teachers on biodiversity related themes promoting eco-labelled food items and green living. In 2019/20, EDB organised a total of 8 PDPs on the themes. In the 2020/21 school year, apart from the PDPs, EDB planned to organise a seminar on learning and teaching strategies for promotion of green living and waste reduction. With the theme of "Adopting Green Procurement for Saving Resources and Carbon Reduction", an online experience sharing forum was held on 30 November 2020 to share experience on green procurement among different stakeholders, including government departments, trade associations, professional bodies and enterprises. More than 180 participants attended the forum. Based on a consultancy study, 33 new green products and services have been added to the existing list of 150 items in the Government's Green Procurement list, including some derived from biological resources, such as personal care products originated from palm oil and more paper and wooden products, as well as sustainable food choice for food and catering service.
23 - Enhance facilities for biodiversity education and research	<p>a) Open and maintain a permanent exhibition on biodiversity in the Hong Kong Science Museum.</p> <p>Timeframe: S</p>	LCSD	23(a)(i) The Biodiversity Gallery in the Hong Kong Science Museum opened in September 2016.	<ul style="list-style-type: none"> The Biodiversity Gallery was opened in 2016, and biodiversity workshops on various topics were hosted by NGOs regularly at the Gallery.
	<p>b) Support the establishment of biodiversity centres.</p> <p>Timeframe: M</p>	AFCD	23(b)(i) Establishment of biodiversity centres at local tertiary institutions supported.	<ul style="list-style-type: none"> AFCD is providing support to tertiary institutions for setting up new learning centres that will help promote biodiversity. In 2018 the Learning Centre on Biological Resources and Sustainable Living, Sustainability Gallery, was set up with AFCD's support under the Institute of Bioresource and Agriculture of Hong Kong Baptist University.
	<p>c) Explore the opportunity for setting up a natural history museum in the long term.</p> <p>Timeframe: L</p>	ENB, AFCD	23(c)(i) Opportunities for setting up a natural history museum explored.	<ul style="list-style-type: none"> AFCD will continue to liaise with relevant stakeholders to explore opportunities for setting up a natural history museum in recent years.