2024 Environmental Report

Development Bureau

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1. INTRODUCTION

This report covers the Year 2024 on the environmental performance of the Planning and Lands Branch (PLB) and Works Branch (WB) of the Development Bureau (DEVB).

The Secretary for Development (SDEV) is the head of the Bureau, with the support of the Permanent Secretary for Development (Planning and Lands) and the Permanent Secretary for Development (Works). PLB oversees the operation of four departments, namely Planning Department (PlanD), Buildings Department (BD), Lands Department (LandsD) and Land Registry; while WB oversees the operation of five departments, namely Architectural Services Department (ArchSD), Civil Engineering and Development Department (CEDD), Drainage Services Department (DSD), Electrical and Mechanical Services Department (EMSD) and Water Supplies Department (WSD).

2. KEY RESPONSIBILITIES

The major areas of policy responsibilities of DEVB include:

- To facilitate Hong Kong's continual development through effective land use planning as well as a steady and sufficient supply of land;
- To achieve the optimum use of land resources and maintain an effective land administration system;
- To manage an efficient system for registration of land;
- To promote and ensure building safety and timely maintenance;
- To implement urban renewal in a holistic manner by improving the built environment of older urban areas and the living condition of residents therein;
- To ensure effective planning, management and implementation of public infrastructure development and works programmes in a safe, timely and cost-effective manner and maintain high quality and standards;
- To ensure the provision of a reliable, adequate and quality water supply and an efficient water supply service;
- To protect, conserve and revitalise historical and heritage sites and buildings through sustainable approaches for the benefit and enjoyment of present and future generations;
- To uplift the quality of the living environment by promoting sustainable urban landscape and tree management; and
- To strengthen and promote Kowloon East as the second Core Business District of Hong Kong.

3. ENVIRONEMENTAL GOAL

The Government has pledged to achieve carbon neutrality before 2050. In 2021, the Government announced Hong Kong's Climate Action Plan 2050, which outlined four major decarbonisation strategies viz. net-zero electricity generation, energy saving and green buildings, green transport and waste reduction. In supporting Government's environmental goal, DEVB is committed to ensuring that our policies are environmental friendly and all projects/programmes and operations under our purview are conducted in an environmentally responsible manner; and that the environmentally responsible culture among staff is inculcated.

4. CONTRIBUTIONS IN MEETING THE ENVIRONMENTAL GOAL

Green Buildings

- ***Government Buildings***

  - DEVB has been joining hands with the Environment and Ecology Bureau (EEB) in promoting green government buildings, and would continue to update the relevant technical circulars jointly issued by the two bureaux as and when appropriate.

  - Green buildings use less energy and reduce water and material usages than conventional buildings which in turn limit greenhouse gas emissions. The Government is determined to promote green building movement in Hong Kong through public projects. Since the launch of the Building Environmental Assessment Method (BEAM) Plus New Buildings Assessment Tool v2.0 in September 2019, new government buildings shall embrace an enhanced approach to green design with greater emphasis on health and wellbeing. To further enhance the performance on green government buildings, we shall review the advancement of various green performance targets on Green Government Buildings.

  - Since the launch of BEAM Plus green building label in 2010, over 600 government buildings have already attained BEAM Plus Gold or above rating.

  - With an aim to improve energy efficiency in government buildings, new Green Energy Target was set in 2019 to further enhance the Government's energy performance by 6% under similar operating conditions in the next five years ending in 2024-25, using the financial year of 2018-19 as the base. In 2023-24, the overall Government's energy performance was 6.4% (with 5.5% contributed by energy saving and 0.9% in renewable energy generation).

■ ***Private Buildings***

- DEVB and BD make on-going efforts to promote wider adoption of BIM in private development projects.

- In response to rising public concerns over the impact of building bulk and height on the built environment, we introduced in April 2011 an enhanced package of measures to foster a quality and sustainable built environment. Since its implementation, around 1 340 new building projects approved by BD have registered for the BEAM Plus assessment under the new Gross Floor Area (GFA) concessions policy as at the end of 2024.

- To further promote a quality and sustainable built environment, BD has implemented the new performance-based GFA concession mechanism in June 2024. Under the new mechanism, new private development proposals are required to achieve anticipated Gold rating under BEAM Plus to qualify for GFA concession for green and amenity features. Projects achieving lower ratings have to demonstrate compliance with one or more specific standards covering enhanced greenery provision, features that promote health and well-being, enhanced natural ventilation for residential buildings, adoption of Building Information Modelling (BIM) and Multi-trade integrated Mechanical, Electrical, and Plumbing (MiMEP) in building services.

- To promote the wider adoption of BIM in private development projects and as promulgated in the Roadmap on Adoption of BIM for Building Plan Preparation and Submission in December 2023, BD has launched the automated floor area checking tools in March 2024 and is developing other tools covering sanitary fitments, fire safety, building separation requirements, structural plan compatibility, etc. BD has also commissioned a consultancy study to formulate a technical framework for the full adoption of BIM by the private sector for preparation of plans for statutory submissions and approval under the Buildings Ordinance.

■ ***Green buildings under Energizing Kowloon East***

◆ On promoting green buildings under Energizing Kowloon East, apart from adopting low-carbon and sustainable design principles in government projects, we also advocate such principles to the private sector. For example, the lease of land sale sites in Kowloon East include a requirement for the development to obtain BEAM Plus Provisional Gold or above rating. As at the end of 2024, a total of 82 buildings in Kowloon East Core Business District have achieved such rating, which were shown in the Green Map on Energizing Kowloon East Office's website. Opportunities have been taken to explore novel green measures in the comprehensive development of the two action areas in Kowloon Bay Business Area and Kwun Tong Business Area, as well as the former Kai Tak Runway Tip area. Concepts of sustainable development, green mobility, smart city initiatives and resilient design are proposed for incorporation into these developments.

Perspective view of Sports Centre from South Direction (Artist's Impression)
District Open Space, Sports Centre and Public Vehicle Park at Sze Mei Street
(BEAM Plus Rating: Provisional Platinum)

■ ***Green Buildings under Urban Renewal Authority (URA)***

◆ The URA has continued to incorporate various environmental provisions in its redevelopment projects, seeking to improve energy efficiency of buildings, reduce water consumption and waste generation, and minimise environmental nuisances during construction and demolition. By end 2024, URA had received 19 final BEAM Platinum/BEAM Plus Platinum ratings, 18 final BEAM Plus Gold ratings and 7 provisional BEAM Plus ratings for projects at the design and construction stages.

PV panels on the top roofs of residential towers

Waste and Recyclables Collection Data

All car parking spaces with EV charging facilities

Building-integrated photovoltaics (BIPV) panels on 3/F Covered Walkway

Green Measures for Land Development

- Our efforts are illustrated in the following projects, mostly in the Northern Metropolis*, as examples.

  - The planning and design for the Kwu Tung North/Fanling North (KTN/FLN) New Development Area (NDA) advocates a sustainable development approach, with emphasis on urban design, respecting the existing natural landscape and encouraging the adoption of environmental friendly and energy saving measures. In response to the public aspirations for a quality living environment, the final development proposals as reflected on the approved statutory plans for the NDAs have accorded high priority to "green" and "sustainable" design. Taking the example in KTN NDA, about 37 hectares are designated for Long Valley Nature Park to protect and enhance existing wetland habitats for the benefit of the local ecology and promotion of conservation and education. The Park, opened in November 2024, is managed by the Agriculture, Fisheries and Conservation Department (AFCD).

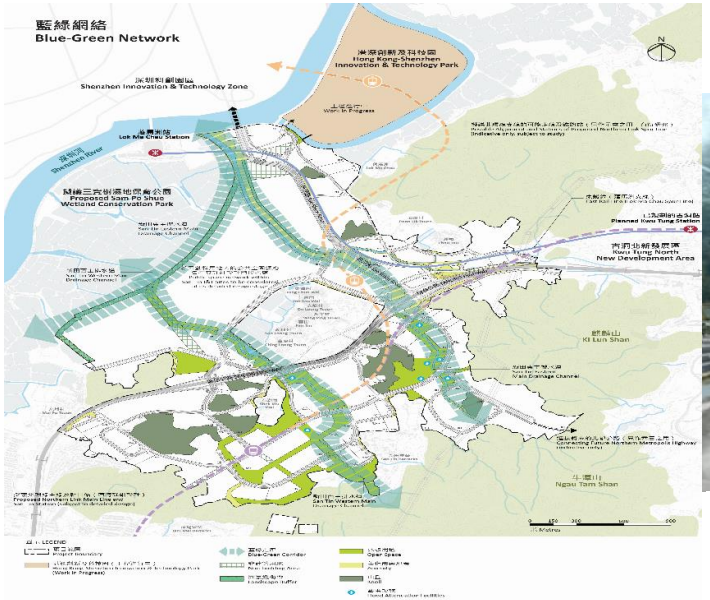
  - The Hung Shui Kiu/Ha Tsuen (HSK/HT) NDA is also designed to be a green city with sustainable and energy saving strategies in respect of town planning, urban design, green transportation and infrastructure to achieve environmental efficiency, carbon emission reduction and sustainable living. In terms of green mobility, for example, a Green Transit Corridor comprising a highly efficient Smart and Green Mass Transit System (SGMTS), pedestrian walkways and cycle tracks is planned. CEDD has already kick-started the investigation and design works for the Phase 1 road works of the SGMTS in May 2024 and targets to invite tenders for the project within 2026.

  - The Yuen Long South (YLS) NDA aims at achieving a balance under a Smart, Green and Resilient (SGR) approach, transforming the degraded brownfield land in YLS to a sustainable, green and livable community, connecting man and nature and integrating the natural and built environment through a biophilic design. In particular, it caters for a blue-green concept integrating with various natural landscape features and water bodies. Besides, the SGMTS mentioned under HSK/HT NDA above will also run through YLS NDA.

* DEVB continued to co-ordinate, champion and drive the overall development of the Northern Metropolis through the Northern Metropolis Co-ordination Office.

- The Government has been adhering to the vision of "Co-existence of Development and Conservation" in planning San Tin Technopole. Within the area, the river/drainage channels, retention ponds, wetland, open space and knolls are knitted closely together to create a blue-green network, creating ecological linkages to enhance biodiversity. Besides, the Government will establish the Sam Po Shue Wetland Conservation Park of 338 hectares adjoining San Tin Technopole, preserving the fishponds or wetland in-situ and enhancing their ecological value through active conservation. San Tin Technopole will become a modern NDA that integrates industry development, ecological conservation and a livable environment.

- For New Territories North New Town, a 8km long green spine is proposed to connect the eastern and western parts of the new development area, which will be a unique blue-green landscape, embodying nature-based solutions and enhancing biodiversity, through measures such as maximising greenery, creating habitats, developing a nature garden and revitalising rivers. Also, flood retention facilities will be incorporated and river improvement works would be carried out to raise the flood prevention capacity of new developments and villages, and strengthen resilience to climate change.



The Proposed Blue-Green Network in San Tin Technopole

The Future San Tin Technopole

Artistic Impression of Revitalised Drainage Channel

- With unique coastal features and rich ecological resources in the Lau Fau Shan (LFS) Area, the Government aims to shape a thriving cityscape that is sustainable and compatible with the surrounding rural and natural elements in its planning. A sensitive planning approach will be adopted to safeguard the area's unique natural assets, including fishponds, mangroves and egretry habitats. In particular, the proposed Coastal Protection Park from Tsim Bei Tsui to Pak Nai being studied by the AFCD covers inter-tidal zone with mangroves and associated habitats. To conserve and respect the natural environment, consideration could be given to incorporating existing habitats into new open spaces and green infrastructure designs, and establishing green corridors and blue-green channels. Woodland and trees in the Tsim Bei Tsui and Pak Nai, which are also abundant ecological resources within the LFS Area, are recommended to be preserved and integrated into the proposed eco-tourism development serving as natural asset for unique eco-tourism activities. Meanwhile, smart, green and resilient initiatives including green transport corridor, car-free precincts, and breezeways are adopted to encourage carbon neutrality and healthy living.

- Other smart initiatives, such as District Cooling System, electric vehicle charging facilities etc., are also taken forward in the abovementioned developments and Tung Chung New Town Extension (TCNTE), where applicable. In TCNTE, water intelligent network and automatic meter reading for water supply system, common utility tunnels etc. are also being incorporated in planning.

The Future Coastal Protection Park in Lau Fau Shan Area

Minimising Environmental Impact by Public Works Policies

- ***Overall strategy***

  - We have implemented a range of environmental improvement measures in public works, including the introduction of a systematic environmental management process, the promotion of reduction, reuse and recycling of surplus construction and demolition materials, temporary storage of the surplus construction and demolition materials in the two temporary fill banks for later reuse, etc.

- ***Project proponents/contractors management***

  - Project proponents are required to prepare a Construction and Demolition Materials Management Plan for identifying and implementing measures to minimise generation of construction and demolition materials and maximise their reuse/recycling through proper planning and design.

  - Public works contractors are required to prepare and implement an Environmental Management Plan setting out effective measures, apart from controlling nuisances such as air, noise and water pollution, to minimize generation of construction and demolition materials.

  - We have been monitoring and assessing the environmental performance of public works contractors. Contractors with repeated convictions in environment-related offences or poor site hygiene may be suspended from tendering.

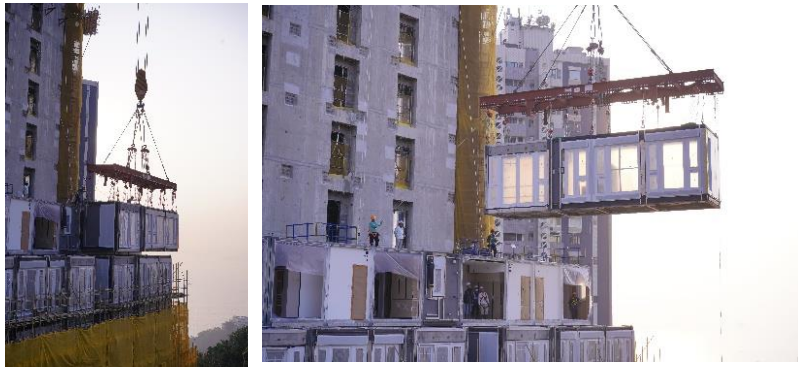
■ ***Adoption of Modular Integrated Construction Method***

◆ The Government had been promoting the wider adoption of Modular integrated Construction (MiC) method in Hong Kong. Apart from enhanced productivity, reduced excessive manpower requirement on site, shortened construction time and improved site safety, the adoption of MiC could also achieve reduction of waste, electricity consumption and water usage on site. MiC has been or will be adopted in over 100 local construction projects including staff quarters, hostels, residential care homes, schools, office buildings, residential buildings, medical facilities and transitional housing.

◆ The Government has announced a series of short-term and long-term measures to strengthen the MiC supply chain, aiming to ensure a steady supply of MiC components and enhance construction productivity. These measures include enhancing module procurement, introducing a manufacturer accreditation scheme, promoting MiC adoption, strengthening collaboration with the Mainland, fostering innovation, providing training, and reserving land for the development of the MiC industry.

◆ The Government also promote the application of high productivity concept in building services works, viz. MiMEP. DEVB will continue to collaborate with Works Departments to adopt MiMEP widely in their upcoming public works.

Modular Integrated Construction Method



■ ***Adoption of Modular Integrated Construction Method (con't)***

- To facilitate the adoption of MiC, the pre-acceptance mechanism for granting in-principle acceptance (IPA) to individual MiC systems or components had been in place since 2017. Besides, in July 2022, BD, PlanD and LandsD jointly promulgated enhanced facilitation measures for new building developments adopting MiC, including the GFA concession policy in allowing 10% of the MiC floor area to be exempted from GFA calculation, and that 10% of the MiC floor area at each floor level could be exempted from site coverage calculation. Minor relaxation of building height restriction would also be supported. The measures took effect from 1 August 2022.

- By 31 December 2024, BD had received 235 IPA applications with 118 IPAs, including 69 steel and 49 concrete MiC systems, granted to 72 MiC manufacturers inscribed on BD's List of Accepted MiC Systems. Also, 42 private MiC development projects were completed with occupation permit granted.

- URA has adopted the Concrete MiC method in the construction of a URA's redevelopment project, namely SSP-015 at Tonkin Street/Fuk Wing Street, Sham Shui Po, which was completed in 2024.

Modular Integrated Construction for SSP-015

■ ***Green procurement/material for reducing carbon emission***

- A sub-group on Green Procurement in Public Works Projects under the Inter-departmental Working Group on Green Government Procurement set up by the former Environmental Bureau, identifies and monitors the use of green materials in public works projects and formulates guidelines, policies and strategies to promote their use.

- Works departments as well as Highways Department have been using paving blocks with recycled waste glass as constituent material (eco-pavers) in road maintenance contracts and selected housing projects. From 2016 to end 2024, about 1 012 000 m^2 of eco-pavers have been laid in both public works projects and housing projects.

- We will continue to promote the use of green materials as well as good waste management practices and measures in public works projects. We will also review and refine the operation of environmental management measures on public works sites as well as strengthen and enhance the "trip ticket" system, etc.

- The green site measures for reducing carbon emissions in public works projects continued in 2024. With the promulgation in March 2016, the use of B5 diesel (i.e. a blend of 95% Euro V diesel and 5% biodiesel) in all non-road based construction machinery in public works contracts has become mandatory.

■ ***Use of vehicles***

- Electric vehicles have been used in public works contracts as far as practicable. 458 electric vehicles were in service under the on-going public works contracts by end of 2024. About 200 more electric vehicles are expected to be procured progressively under various works contracts in 2025.

Eco-pavers

Electric vehicles used in public works contracts

Energy and Water Conservation

■ *Water-cooled Air-conditioning Systems*

- The Fresh Water Cooling Towers (FWCT) Scheme, launched in 2000, has been targeting at the non-domestic buildings to encourage a wider use of fresh water cooling towers for energy-efficient air-conditioning. As at the end of December 2024, the EMSD had received 1 419 applications since the introduction of FWCT Scheme. Amongst them, 3 300 FWCTs have been completed and put into operation. It is estimated that these successful installations could save up to about 766 million kWh electricity annually, which is equivalent to around 536 000 tonnes of carbon reduction.

Fresh Water Cooling Towers Scheme

■ *Water Conservation*

- We have been implementing the Total Water Management (TWM) Strategy through adoption of a two-pronged approach with emphasis on containing fresh water demand and building resilience in the fresh water supply catering for extreme effects of climate change with diversified water resources.

- The three major water demand management initiatives under TWM include water conservation, water loss management, and expansion of the use of lower grade water (viz. seawater and recycled water) for non-potable purposes.

  In 2024, we launched a new round of water conservation campaign "Save Water Today for a Sustainable Future" aiming to raise public awareness of water conservation and change water usage habits. A diverse range of activities were organised, including launching a water-saving theme song, broadcasting of new announcement in the public interest, mounting an extensive social media campaign, and organizing interactive roadshows like the "Water Save Carnival" and "Water Save Wonderland".

■ ***Water Conservation (con't)***

- We have been progressively establishing District Metering Areas (DMAs) of the Water Intelligent Network (WIN) with monitoring and sensing equipment installed in the fresh water distribution network across the territory to continuously monitor water loss for early identification of water leaks and carrying out timely repair works of water mains. 2 400 DMAs of WIN will be completed in the 1st quarter of 2025.

- To expand the use of lower grade water (viz. seawater and recycled water) to save fresh water, we commenced the supply of recycled water from the Shek Wu Hui Water Reclamation Plant for toilet flushing in March 2024. We also continued expansion works of the salt water supply system to Tung Chung New Town and its extension and completed the construction of the first phase of the centralised grey water recycling system in the Anderson Road Quarry Development for supplying recycled water for toilet flushing in phases starting from 2025.

Water Save Carnival

Cherish Water Campus

Shek Wu Hui Water Reclamation Plant

Other Environmental Friendly Measures

- ***Conservation of Rural Lantau***

  - While pressing ahead with development projects, the Government is committed to conserving the rural Lantau. A Lantau Conservation Fund (LCF) was set up in 2020 to support non-government organizations, local communities and land owners, etc., to carry out conservation and related projects on rural environment in Lantau. 47 LCF projects covering research, education and engagement and management agreement, involving a total grant of about $130 million were approved from 2020 to 2024. Besides, twelve government minor improvement works in support of conservation with an amount of about $79 million were approved under LCF from 2020 to 2024.

LANTAU CONSERVATION FUND 大嶼山保育基金

- ***Measures for Promoting Urban Forestry and Tree Management***

  - Urban forests are pivotal in enhancing urban liveability and building the resilience of our cities in face of extreme weather. They serve as valuable green assets in providing sustainable solutions to global environmental challenges.

  - We promoted tree care work and proper ways to conduct tree risk assessment to private property owners, property management personnel and the public. In 2024, over 3 200 participants attended public seminars, webinars and workshops on such topics. The exhibition area of Development Bureau in Hong Kong Flower Show 2024, which attracted many attendees, promoted public appreciation of greening. We also reached out to many young people in the Education and Careers Expo 2024 to publicise the Urban Forestry Support Fund and encourage them to join the arboriculture industry.

  - School Talks and Arbor Fun Day were conducted to enhance students' understanding of urban forestry. They were attended by 3 300 students in 2024.

■ ***Measures for Promoting Urban Forestry and Tree Management (con't)***

◆ The International Urban Forestry Conferences (IUFC) 2024 was held at the Hong Kong Science Park and live-streamed globally from 10 to 12 April 2024. Under the theme "Green Metropolis – The Crucial Role of Urban Forests for a Sustainable Future", the conference examined key aspects of sustainable urban forestry, including landscape planning, blue-green infrastructure integration, community empowerment, and technological advances in tree management in the local, regional and international perspectives, including the experience of the Guangdong-Hong Kong-Macao Greater Bay Area in synergising urban green and blue networks.

The Opening Ceremony of IUFC 2024

◆ To celebrate the 75th anniversary of the founding of the People's Republic of China, we organised a tree planting ceremony in December 2024. Together with representatives from government departments and local residents, 75 Camellia trees and numerous shrubs were planted at Kai Tak Station Square to promote public participation in community greening and create a more livable neighbourhood environment.

Beautiful Camellias in Kai Tak Station Square

■ ***Measures for Promoting Urban Forestry and Tree Management (con't)***

◆ We continued to publish "Verdure", the newsletter for bringing latest information on greening, landscaping, and tree care to the public.-

◆ Our Instagram account *@hk.trees.landscape*, continued to promote different green attractions in Hong Kong and other latest public activities related to landscape design, arboriculture and urban forestry.

◆ Online platform "See GREEN, Go GREEN" in DEVB's Greening website (www.greening.gov.hk), continued to provide greening information including green attractions, activities and new developments from various government departments.

◆ Public guided tours "See GREEN, Go GREEN. Little Trip" were held in January and December 2024, taking around 500 members from the public and students to the Cattle Depot Art Park and Cha Kwo Ling Promenade to learn more about benefits of trees and landscape assets and blue green infrastructure in Hong Kong.

Guided Tour at Cattle Depot Art Park

Guided Tour at Cha Kwo Ling Promenade

■ ***Housekeeping Measures within this Bureau***

Energy Saving

- DEVB, with its offices mostly located in Central Government Offices (CGO) at Tamar, has adopted the following energy saving measures –
  - Installation of LED lighting, motion sensors and auto timers for offices;
  - Setting indoor air-conditioned temperature at 25.5 ° C in summer season; and
  - Setting office equipment in power-saving mode/standby mode when they are not in use for over 15 minutes.

Green Transport

- To improve roadside air quality and reduce greenhouse gas emission, DEVB continues to arrange procurement of electric vehicles with a view to replacing conventional passenger vehicles in the government fleet for its daily business use in 2025/26.

Waste Reduction – Paper conservation

- We have adopted the following arrangements to reduce use of paper –
  - Sending electronic greeting cards to government contacts and posting on DEVB's website to deliver festive greetings;
  - Collect plastics, metals, waste paper, glass bottles and rechargeable batteries by setting up recycling boxes at pantries/common areas;
  - Electronic Recordkeeping System (ERKS) has been rolled out by phases. With the implementation of ERKS, filing of paper records will be reduced; and
  - In 2024, we consumed 11 201 reams of paper, which recorded a decrease of about 10% against the consumption in 2023. We will continue our best endeavours to ensure the most efficient use of resources in the years ahead.

Carbon Management

- Annual carbon audit exercise is required to be conducted for government buildings with annual electricity consumption over 500 000 kilowatt hour. For DEVB, annual carbon audit was conducted for the Hong Kong Heritage Discovery Centre in 2024. The amounts of greenhouse gas emissions for the Centre was around 524 tonnes of CO2-e (representing a decrease of about 7% as compared to that of 2023); and

- We have also reminded our staff to be more prudent in the use of energy, and will continue the endeavors to work towards a low carbon and greener working environment.

Other Green Performance – Green purchasing

- "Green" stationery items supplied by the Government Logistics Department, such as clutch pencils, refillable ball pens, recycled pencils and furniture made of chip board, are now widely used in DEVB. Other green items e.g. box files made of recycled paper are also ordered from contractors for office use;

- It has all along been our practice to purchase only office equipment such as photocopiers, fax machines and printers with Energy Efficiency labels;

- Option of trade-in has been prioritized when procuring store items for replacement; and

Other Green Performance – Green purchasing (con't)

- The support and cooperation from staff members are always the key to the success of our green office management. Apart from regular re-circulation of relevant guidelines on paper and energy saving, we have from time to time actively encouraged our staff to support green activities organised by other government departments and organisations.

We will continue with our efforts in fostering a green culture and ensuring that our offices operate in an environmentally responsible manner.

5. VIEWS AND SUGGESTIONS

If you have any views and suggestions in connection with this Environmental Report, you are welcome to contact us via e-mail at devbenq@devb.gov.hk or by fax on 2523 5327 or write to us at 15/F, West Wing, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong.

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