2021 Environmental Report

Development Bureau

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1. INTRODUCTION

This report covers the Year 2021 on the environmental performance of the Planning and Lands Branch (PLB) and Works Branch (WB) of the Development Bureau (DEVB).

DEVB was established on 1 July 2007 following the reorganisation of the Government Secretariat's Policy Bureaux. It consists of two policy branches: the PLB and the WB. The Secretary for Development (SDEV) is the head of the Bureau, with the assistance 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 is responsible for 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. ENVIRONMENTAL POLICY

We support the HKSAR Government's initiatives to improve the environment by:

- ensuring that sustainable development is the starting-point of all our planning work for the development of Hong Kong;
- making available sufficient land and associated infrastructure for activities that are essential for the sustainable development of Hong Kong;
- promoting the development of sustainable and energy efficient buildings and fostering a quality and sustainable built environment for Hong Kong;
- adopting a multi-pronged approach to promote timely maintenance of existing buildings, which helps prolong the overall life span of buildings, optimises the economic value of our scarce land resource and improves the living environment, all of which contribute to a sustainable living environment;
- requiring ourselves and our agents to minimise any possible environmental impacts in implementing public works;
- revitalising historical and heritage sites and buildings through sustainable approaches;
- promoting a holistic approach to greening, landscape and tree management with a view to achieving a sustainable urban environment in Hong Kong;
- promoting energy efficiency and savings, waste reduction, recovery and recycling, and less consumption of resources;
- minimising the production of environmental pollutants and/or nuisance; and
- developing a culture of environmental protection and awareness among staff members.

3. KEY RESPONSIBILITIES

DEVB is responsible for policy matters on land supply and disposal; land use planning; building control and safety; land registration; urban renewal; landscape and tree management; water supply; slope safety; flood prevention; development-related heritage conservation and various works policies such as procurement, construction management and standards, safety and environmental management. The major areas of policy responsibilities include:

- overseeing land policy and the related legislation, land sale and disposal;
- managing land resumption and clearance compensation, and coordinating land use for potentially hazardous installation;
- overseeing land use planning policy and the related legislation, and issues on territorial, sub-regional and district planning;
- coordinating the overall planning of Lantau and maintaining close liaison with mainland authorities on cross-boundary planning issues;
- overseeing building control and safety and land registration, supporting timely building maintenance and encouraging innovative and environmentally friendly building design;
- implementing the Urban Renewal Strategy and overseeing the operation of the Urban Renewal Authority (URA);
- ensuring the provision of a reliable, adequate and quality water supply and an efficient water supply service;
- ensuring effective planning, management and implementation of public infrastructure development and works programmes in a safe, environmentally responsible, timely and cost-effective manner and maintaining high quality and standards;
- ensuring a high standard of slope safety, and greener and visually more attractive slope appearance;
- expediting the transformation of Kowloon East into an additional core business district to support Hong Kong's economic development;

- alleviating the risk of flooding and incorporating environmentally friendly measures in river widening works and channel design;

- uplifting the quality of the living environment by promoting sustainable urban landscape and tree management; and

- protecting, conserving and revitalising historical and heritage sites and buildings through sustainable approaches for the benefit and enjoyment of present and future generations.

4. ENVIRONMENTAL GOAL

Our goal is for all developments in Hong Kong to be guided by principles of sustainability in order to balance social, economic and environmental needs, with a view to providing a high quality living environment for both the present and future generations of Hong Kong.

5. ENVIRONMENTAL PERFORMANCE OF MAJOR POLICY PROGRAMMES

5.1 Land Supply

Policy

Our land policy is to optimise the use of land as allowed under the statutory planning framework through an effective land administration system. When government land becomes available for disposal on a long-term basis, it is, where appropriate, disposed of to the private sector or allocated to bureaux/departments for permanent development according to the plans/schemes approved under the statutory planning framework.

To this end, we are committed to increasing land supply to meet the demand of both the private and public sectors and to facilitate community and infrastructural development that are essential to the long-term social and economic development of Hong Kong.

Promoting Environmental Initiatives

Conditions in land documents are one of the vehicles whereby the Government may implement its environmental initiatives. Examples include imposition of requirements for the provision of spaces for off-street parking of bicycles, and incorporation of the "Tree Preservation Clause" and the "Tree Maintenance Clause" in the relevant land documents.

Development Controls

As a positive response to public aspirations for a quality city environment and increasing concerns about excessive development intensity, we have reviewed individual sites for sale in the 2020-21 Land Sale Programme. For every site included in the Land Sale Programme, we examined the particulars of each site carefully, and specified in the Conditions of Sale the maximum Gross Floor Area (GFA) as allowed under the statutory planning framework and, where appropriate, other development restrictions, such as building set back, building separation, etc. Where necessary, we also conducted air ventilation assessment (AVA) to assess the impact of the development on the pedestrian wind environment and included the appropriate restrictions in the Conditions of Sale for the sites concerned to ensure that the air ventilation impact on their surrounding area would not be unacceptable. In other circumstances where it was considered appropriate, the purchasers of the sale sites were required under the Conditions of Sale to carry out environmental-related assessments such as

noise impact assessments. Where necessary, pre-land sale tree surveys were also conducted to identify trees of particular value where suitable requirements would be included in the Conditions of Sale.

Land Control and Lease Enforcement Measures

As the Government's land administration agent, LandsD implements land control and lease enforcement measures on unallocated government land and private land. During 2021, LandsD handled 1 540 lease enforcement cases against private land owners in respect of nuisances, erection of structures or conversion of uses not permissible under the leases. In the same year, 57 363 Government Land Notices under the Land (Miscellaneous Provisions) Ordinance (Cap. 28) were posted for occupation of government land, which included the clearance of unauthorised dumping.

5.2 Land Use Planning

Policy

We oversee land use planning to achieve optimum and sustainable use of land, with the aim of making Hong Kong a better place to work and live. To this end, we continued to take various actions in 2021 to upgrade urban design, enhance the vista of buildings and improve air ventilation. Based on the principle of sustainable development, we also took forward initiatives on pedestrian planning and area improvement, and planning work for new areas for development (including New Development Areas (NDAs) and New Town Extensions).

Improving Air Ventilation and Urban Climate

There is growing community aspiration for a better living environment. The public has also called for measures to prevent developments from creating "wall effect" which may have adverse visual and air ventilation impacts on the surrounding areas.

According to the Technical Circular on AVA jointly issued by the then Housing, Planning and Lands Bureau and the then Environment, Transport and Works Bureau, proponent bureaux/departments or authorities responsible for major government projects are required to undertake AVA to ensure that air ventilation impact is given due consideration at the planning and design stage. Quasi-governmental organisations and the private sector are also encouraged to conduct AVA for their projects on a voluntary basis. URA has adopted the guideline set out in the Technical Circular and has since conducted AVA for its large-scale projects under planning and the MTR Corporation Limited would take into account the guidelines in the planning and design of projects, and conduct AVA for projects yet to be approved, where required.

The Government continued to observe the Technical Circular and conduct AVA where necessary for new public housing sites as well as individual proposed land sale sites, and in reviewing Outline Zoning Plans (OZPs) and carrying out planning studies. Taking AVA findings into account, appropriate development parameters such as site coverage, GFA/plot ratio, building height, podium size, non-building area, building set back, etc. would be specified in the Conditions of Sale of the sites, on the OZPs and in planning briefs where necessary.

Conservation-related Zones

The scarcity of land and increasing development pressure impose threats on our natural environment. Zoning designation helps safeguard our natural environment against undesirable development in areas of high conservation value.

As at the end of 2021, about 11 994 hectares in the territory (or about 19.46% of area covered by statutory plans) fell within the following conservation-related zones on the relevant statutory plans: "Conservation Area", "Site of Special Scientific Interests", "Country Park", "Coastal Protection Area", "Other Specified Uses" annotated "Comprehensive Development to include Wetland Restoration Area", "Comprehensive Development and Wetland Protection Area" and "Comprehensive Development and Wetland Enhancement Area".

Hong Kong Planning Standards and Guidelines

The Hong Kong Planning Standards and Guidelines (HKPSG), comprising a total of 12 chapters, is a government manual of criteria for determining the scale, location and site requirements of various land uses and facilities. It serves to ensure that during the planning process, the Government will reserve adequate land to facilitate social and economic development and provide appropriate public facilities to meet the needs of the public. Various bureaux and departments will formulate, review and amend the planning standards and guidelines falling under their purview from time to time taking into account the latest policy considerations and initiatives. PlanD will continue to assist bureaux and departments to incorporate updated or new standards and guidelines into the HKPSG for promulgation to the public.

Hong Kong Planning Standards and Guidelines

Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030

At the strategic spatial planning level, the future land and infrastructure development and the shaping of the built and natural environment of Hong Kong are guided by a territorial development strategy (TDS). The latest TDS known as "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" ("Hong Kong 2030+") was promulgated in October 2021. A people-centric, proactive, vision-driven and capacity-creating approach has been adopted to draw up a robust development strategy for Hong Kong to become a liveable, competitive and sustainable Asia's World City. To this end, a series of strategic directions under three building blocks, namely enhancing liveability in a compact high-density city, embracing new economic opportunities and challenges, and creating capacity for sustainable growth, and a conceptual spatial framework are formulated to prepare changes and increase our resilience in the years to come. Among others, strategic directions are proposed to mainstream biodiversity, climate resilient as well as carbon neutrality considerations in the planning and development process and proactively manage selected areas of high ecological value to achieve environmental sustainability.

Lantau Development

While pressing ahead with development projects, the Government is committed to conserving the rural Lantau. Further to the Sustainable Lantau Blueprint promulgated in 2017 which mapped out the overarching principle of "Development in the North, Conservation for the South" and set out various conservation initiatives, the Government formulated the policy directive of "Conservation to precede Development" for Lantau development in the 2018 Policy Address, with a view to enhancing the environmental capacity of Lantau to achieve sustainability.

The Sustainable Lantau Office (SLO) of the CEDD formulated the Lantau Conservation and Recreation Masterplan (Masterplan) in 2020 to provide a framework to guide and co-ordinate the conservation and recreation initiatives of Lantau. The Government also set up a $1 000 million Lantau Conservation Fund (LCF) in 2020 to support non-government organizations, local communities and land owners, etc., to carry out conservation and related projects involving private land in Lantau as well as undertaking local improvement on government land in support of conservation initiatives and improvement on rural environment in Lantau. In the first round of LCF application, a total of 18 projects covering research, education and engagement and management agreement, involving a total grant of over $50 million were approved in 2021. Besides, eight government minor improvement works in support of conservation with an amount of about $68 million were approved under LCF in 2020 and 2021. We continued to promote the LCF and the results of the second round applications will be announced in mid/Q3 2022. The "Ecological Study for Pui O, Shui Hau, Tai O and Neighbouring Areas - Feasibility Study" has been completed and we are taking forward some of the short to medium-term conservation measures as recommended in the Study. We also commenced the "Ecological Surveys and Studies for San Tau to Sham Wat, Yi O and Shap Long" in September 2021 to collect ecological information and explore appropriate conservation measures at these three areas.

Following the Lantau Trails and Recreation Plan formulated under the Masterplan in 2020, we are taking forward the related leisure and recreation projects in phases for development of a hiking trail network and biking network connecting a number of heritage, ecological and recreational hotspots in Lantau, with a view to providing diverse and sustainable leisure experience and promoting healthy living. Views from experts and stakeholders, including academic, professional institutions, green groups and locals, will continue to be sought for the formulation of conservation measures in Lantau.

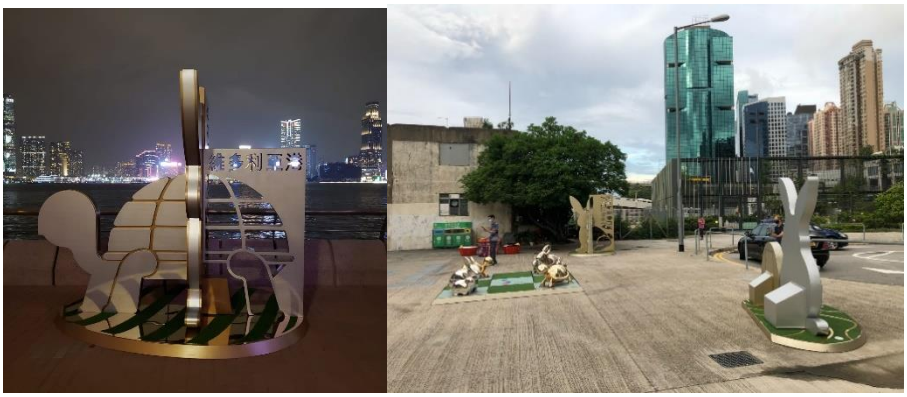
Enhancement Projects for the Harbourfront

To continue the efforts in extending the promenade along both sides of the Victoria Harbour and providing quality open spaces for public enjoyment, the Government and Harbourfront Commission have been actively pursuing various harbourfront enhancement initiatives through the dedicated funding of $6.5 billion. 13 harbourfront sites were opened in 2021, extending the total length of promenade to 25 kilometres (km) by the end of the year. The longest continuous section of the promenade had also extended from 5.5 km to 7.4 km, stretching from Shek Tong Tsui to Fortress Hill.

In order to open the harbourfront sites for public enjoyment as soon as possible, "incremental approach" has been adopted to connect different parts of the promenade to advance the opening of the sites one to three years ahead of the original plan. In addition, a number of our harbourfront venues are "Habourfront Shared Spaces", which adopt an open management model under the "vision-driven" approach, allowing visitors to enjoy the harbourfront areas in their own ways harmoniously with mutual respect.

In addition, with a view to promoting environmental sustainability and offering diverse user experience, a number of green initiatives have been put in place to various harbourfront venues. For example –

(i) While each harbourfront venue has its own public furniture and "pop-up" installations during festive seasons, some of such furniture and installations have been relocated to other harbourfront sites to benefit a wider spectrum of visitors around Hong Kong;



Relocation of festive installations
(from the Connector in Wan Chai (left) to the North Point Promenade (right))

Relocation of public furniture
(from the Belcher Bay Promenade in Kennedy Town (left)
to Tsuen Wan Promenade (right))

Relocation of public furniture
(from the North Point Promenade (left) to Belcher Bay Promenade (right))

(ii) besides relocation, some of the installations and public furniture have also been upcycled to form a new piece of decoration/furniture. For instance, a birthday cake installation in the Belcher Bay Promenade was once upcycled to become seating and movable carts; and

Upcycling in the Belcher Bay Promenade:
from installation (left) to movable cart (middle) and seating (right)

Upcycling of public furniture in the Connector (from left to right)

(iii) Since the joining of the "Tetrapak Clean Recycling Pilot Scheme" in 2020, a Tetrapak recycling bin has been placed in the Belcher Bay Promenade to encourage the public to recycle beverage cartons. Workshops were also held to teach the public how to turn recycled materials into special ornaments. In 2021, an additional Tetrapak recycling bin was placed at the Pierside Precinct in Wan Chai.

Tetrapak Recycling Scheme

Planning Enforcement against Unauthorised Developments

Unauthorised developments (UDs) have led to environmental degradation in the rural New Territories, and are causing nuisance to local communities. They have damaged the natural environment and also caused problems like flooding, air and water pollution, traffic congestion, sometimes even posing a threat to public safety. Enforcement and prosecution actions against UDs are therefore necessary to help prevent further degradation of the rural environment.

In 2021 a total of 2 204 suspected UDs in the New Territories were investigated. Among these, 536 were confirmed to be UDs, including mainly storage use, land/pond filling and vehicles parks. The Planning Authority issued a total of 2 408 warning letters/reminders for 555 cases, 2 272 enforcement notices for 363 cases, 879 reinstatement notices for 172 cases and 3 158 compliance notices for 554 cases. A total of 168 notice recipients were prosecuted, convicted and fined for not complying with the requirements of the notices. During the year, enforcement and prosecution actions resulted in the discontinuation of 387 UDs occupying 77 hectares of land, while another 35 UDs covering seven hectares of land were regularised through the planning application system.

Developments in the New Territories

Kwu Tung North (KTN), Fanling North (FLN) and Hung Shui Kiu/Ha Tsuen (HSK/HT) NDAs and Yuen Long South (YLS) Development

The planning and design for the KTN and FLN 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 KTN and FLN NDA 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.

Through comprehensive planning and provision of enhanced infrastructure, the HSK/HT NDA and YLS Development projects will incorporate land originally occupied by large tracts of open storage and port back-up uses (generally known as "brownfield land") and other uses including squatters and abandoned and spoilt farmland as part of the new development areas, so as to transform the chaotic and damaged rural lands into comprehensively planned and compatible land uses, with good layout and design.

The 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. For example, the planning concept of "From Brown to Green" – is adopted by HSK/HT NDA to transform about 223 hectares of brownfield sites into optimal land uses to improve the overall environment and provide housing units and jobs. In terms of green mobility, a Green Transit Corridor comprising a highly efficient Environmentally-friendly Transport Service, pedestrian walkways and cycle tracks is planned. The YLS Development aims at achieving a balance under a Smart Green Resilient

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.

The Future KTN NDA

The Future Regional Economic and Civic Hub around the Proposed Railway Station in HSK NDA

Artist's Impression of the Future Revitalised Nullah in YLS

Tung Chung New Town Extension

Tung Chung New Town Extension (TCNTE) is the first new town extension project via reclamation since 2003. It will enable the development of a distinct community with more comprehensive transport network and provision of a wider range of community facilities. The project will provide about 62 100 residential flats[1] and about 877 000 m^2 of commercial floor space, and create 40 000 job opportunities. The reclamation at Tung Chung East is the main part of the extension project and could provide about 49 500 new flats (out of the above 62 100 flats).

The reclamation works in Tung Chung East commenced in December 2017 and has been progressing well for completion in 2023. The first two batches of land parcel of reclaimed land for public housing construction were handed over to the Housing Authority in March and October 2020 respectively, with first population intake starting from 2024. Along the coast of the reclamation area at Tung Chung East, we will provide an eco-shoreline to enhance the ecological functions and the growth of general marine water habitat. Walkway, cycle track and road networks have been planned to connect Tung Chung East and Tung Chung West with the existing town area to form an integral township. The landscape framework of the new town extension is designed to enhance the street vibrancy and provide pedestrian-friendly access to the waterfront and open spaces via the Central Green area or greenery walkways.

[1] The figures are achievable through the revision of the flat design of public housing and the increase in the plot ratio for optimising the use of public housing sites. The minor relaxation of development parameters of selected public housing developments is subject to the approval of the Town Planning Board.

Tung Chung East Extension

The rural character of the majority of Tung Chung West will be preserved. The knoll at the northeast of Yat Tung Estate with the natural landscape feature will be developed into a proposed open space in Area 29A to serve existing population of Tung Chung New Town, and a range of facilities will be provided for better public enjoyment. Besides, we will revitalise a section of the existing channel of the Tung Chung Stream and develop into a River Park to enhance the ecological value of the Tung Chung Stream and to promote water-friendly culture. We propose constructing a series of Sustainable Urban Drainage Systems, including storm-water attenuation and treatment ponds, bioswales and porous pavements, to control the quantity and quality of the surface runoff being discharged into the Tung Chung Stream from the development areas and the adjoining roads.

We are also taking forward other smart initiatives, including District Cooling System, electric vehicle charging facilities, water intelligent network and automatic meter reading for water supply system, common utility tunnels, etc., with a view to developing TCNTE into a smart and green community.

Artist's Impression of Proposed River Park and Visitor Centre in Tung Chung West

San Tin/Lok Ma Chau Development Node (STLMC DN) – First Phase Development of the New Territories North (NTN) Development

The STLMC DN is one of the three identified Potential Development Areas in the NTN. The Government commenced the Feasibility Study of STLMC DN in September 2019. According to the Initial Land Use Plan promulgated in March 2021, STLMC DN will accommodate a population of about 84 000 people and create about 64 000 job opportunities. Following the announcement of the Northern Metropolis Development Strategy (NMDS) in the 2021 Policy Address, STLMC DN will be expanded to form an integral part of the San Tin Technopole. In October 2021, PlanD and CEDD commenced a joint Investigation Study for STLMC DN to review the Initial Land Use Plan to take forward the latest development strategy and recommend the detailed land uses and supporting infrastructure.

The planning and design of STLMC DN advocates the 'smart, green and resilient' principles, promotes efficient use of land resources by making good use of brownfield and abandoned farmland, adopts the 'transit-oriented-development' approach, improves home-job balance, encourages energy/resources saving, and enhances the blue-green assets so as to create a green and low carbon environment.

5.3 Building Design and Maintenance

Policy and Vision

Our vision is a safe, healthy and sustainable built environment and an attractive city outlook worthy of a dynamic world-class city. We aim to achieve this through quality and sustainable construction, proper building maintenance, clearance of illegal structures, public education and community participation in a culture of good building care.

Green Building

Government Buildings

The Government is determined to promote green building movement in Hong Kong through public projects. Since 2009, we promulgated a comprehensive target-based green building performance framework jointly with the Environment Bureau (ENB) for new and existing government buildings with a view to promoting green buildings in Hong Kong. These include the requirement that all newly-built government buildings of construction floor areas above 5 000m^2 (with central air-conditioning) or above 10 000 m^2 (with or without central air-conditioning) would have to obtain the second highest grade or above under the BEAM Plus green building labelling system conferred by Hong Kong Green Building Council. Since the launch of the BEAM Plus green building label on 1 April 2010, over 280 government projects have been registered for the assessment. With the launch of the 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.

With an aim to improve energy efficiency in government buildings, a target was added to the environmental performance framework since 2015 with a view to reducing a further 5% of electricity consumption of government buildings for the years from 2015 to 2020 under similar operating conditions as compared to 2014. Thanks to energy audits in government buildings and investments in energy-saving projects, a total reduction of 7.8% was achieved in 2020. A 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 2025 as compared to 2019. The overall energy performance improvement achieved in 2021 was 2.4%. In the next few years, retro-commissioning shall be systematically conducted in government buildings to effectively identify improvements to operations and energy efficiency.

The Government had been promoting the wider adoption of Modular integrated Construction (MiC) method in Hong Kong. The MiC adopts the concept of "factory assembly followed by on-site installation" with the key benefits of improved environmental sustainability performance amongst others

such as enhanced productivity, reduced excessive manpower requirement on site, shortened construction time and improved site safety.

In the past years, DEVB had taken the lead to pilot MiC in different public projects. DEVB had also introduced several key facilitating measures to foster the development of MiC, including the Technical Circular (Works) to mandate the adoption of MiC for designated government buildings and the Construction Innovation and Technology Fund (CITF) to incentivise the adoption of MiC technology.

The impact of the above measures has been profound. Following the completion of the first pilot MiC projects - Innocell building in October 2020 and Pak Shing Kok FSD staff quarters in February 2021, there are now over 70 local construction projects including staff quarters, hostels, residential care homes, schools, office buildings, medical facilities and transitional housing in the pipeline adopting MiC.

According to the study by the University of Hong Kong on the performance of the pilot MiC projects, the adoption of MiC could reduce construction time by about 30% to 50%, save construction costs by about 10%, and uplift on-site labour productivity by 100% to 400% comparing with conventional construction methods. Substantial improvements in environmental sustainability including the reduction of waste, electricity consumption and water usage on site can be also achieved. It is anticipated that the ecosystem for MiC shall continue to evolve as the industry recognizes the great improvement in productivity, sustainability, quality and safety brought by this innovative construction method.

As the next step to uplift construction productivity, sustainability, quality and safety, the government shall also promote the application of high productivity construction concept in building services works, i.e., Multi-trade integrated Mechanical, Electrical and Plumbing (MiMEP). DEVB will continue to collaborate with Works Departments to adopt MiMEP widely in their upcoming public works projects, and will consider to incentivize the adoption of MiMEP through CITF.

Private Buildings

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. The measures include requiring new buildings to (i) register for the Building Environmental Assessment Method (BEAM) Plus assessment by the Hong Kong Green Building Council (HKGBC); (ii) comply with the sustainable building design guidelines promulgated by BD on building setback, building separation and greenery coverage; (iii) provide energy consumption information; and (iv) meet the Residential Thermal Transfer Value standards for external walls and

roofs of new residential (since April 2015) for seeking GFA concessions for their green/amenity features and non-mandatory/non-essential plant rooms. Since its implementation in April 2011, over 1 060 new building projects approved by BD have registered for the BEAM Plus assessment under the new GFA concessions policy. We will continue to monitor the effectiveness of these measures in promoting green buildings in Hong Kong.

To further promote green buildings in the private market, we have also commissioned a consultancy study to review the aforesaid requirement for new buildings to register for the BEAM Plus assessment in order to be eligible for GFA concessions. The review explores possible options of requiring private development projects to attain specific standards of performance in environmental protection, or adopt performance-based and site-specific approaches in refining the GFA concession mechanism. While maintaining the current 10% cap for GFA concession for new private development projects, the consultant recommended that new development projects would have to achieve a specific rating under the BEAM Plus in order to be eligible for GFA concession. If a project's rating is not up to the specific rating, it would have to demonstrate compliance with additional new specific standard(s) concerning quality built environment. We will continue to communicate with stakeholders to prepare for the new GFA concession mechanism.

Further to the amendments of the Building (Minor Works) Regulation (B(MW)R) in 2020 to allow the installation of designated greening features, such as planters, ponds or fountains, trellises and metal frames for growing of plants in existing private buildings under the simplified requirements of Minor Works Control System (MWCS) aiming at promoting a green and quality built environment, BD amended B(MW)R in 2021 to expand the validation scheme of MWCS to allow the continued use of existing unauthorised minor amenity features (e.g. solid fence wall, mesh fence, canopy, retractable awning and trellis, etc.) which meet the prescribed descriptions and requirements and were erected before 1 September 2020 so as to meet the genuine needs of the building occupants and avoid wastage.

Besides, as a continuous measure to encourage adoption of MiC in new buildings, BD is granting GFA concessions to disregard 6% of the floor area constructed by MiC from the calculation of GFA for new MiC buildings. In addition, BD also promulgated streamlined measures and guidelines to facilitate the industry in meeting the relevant standards and requirements under the Buildings Ordinance and set up the pre-acceptance mechanism for granting in-principle acceptance (IPA) to individual MiC systems/components. Having considered the difficulties to conduct factory visits to fulfill on-site quality audit checks for MiC modules in view of the stepped up cross-boundary control, BD continued to adopt a pragmatic and flexible approach to accept the use of videotelephony by certain supervisory personnel in conducting supervision for

factory production of MiC modules instead of visiting the factory outside Hong Kong.

By 31 December 2021, BD had received 118 IPA applications with 49 IPA granted to 30 MiC manufacturers inscribed on BD's List of Accepted MiC Systems. Also, three private MiC buildings were completed with occupation permit granted.

Promoting Proper Management of Existing Buildings

Proper building management, and timely maintenance of existing buildings and modernisation of their associated assets help prolong the overall life span of buildings, optimise the economic value of our scarce land resource, enhance public safety and improve the living environment, all of which contribute to a sustainable living environment. To this end, we have been undertaking a multi-pronged approach in promoting proper maintenance of existing buildings, as detailed in the following paragraphs.

Mandatory Building and Window Inspection Schemes

The Mandatory Building Inspection Scheme (MBIS) and the Mandatory Window Inspection Scheme (MWIS) have been in operation since 2012. With the rationale of "prevention is better than cure", the two schemes help tackle the problem of building neglect at source. Owners of private buildings (except domestic buildings not exceeding three storeys in height) that are aged 30 years or above and ten years or above respectively will be selected to carry out prescribed inspection of the common parts, external walls, projections and signboards of the buildings under the MBIS, and of the windows in the buildings under the MWIS and, if necessary, to carry out prescribed repair.

BD has also organised public education and campaign on the importance of proper maintenance of buildings and nurture the culture of undertaking regular maintenance and repair of buildings voluntarily in the community.

Lift Modernisation Subsidy Scheme

To assist needy building owners in conducting the modernisation of aged lifts with a view to enhancing lift safety, the Government had partnered with URA in 2018 to launch a $2.5 billion "Lift Modernisation Subsidy Scheme" (LIMSS) over six years starting from 2019-20 to provide financial subsidy with appropriate professional support to needy owners of eligible buildings for modernisation of about 5 000 aged lifts. Since the first round application of the LIMSS was very encouraging, the Government injected an additional $2 billion into the scheme in 2019 so that the number of lifts to be subsidised will be increased to about 8 000. As of end-December 2021, modernisation works for about 2 300 lifts had been arranged.

Financial and Technical Assistance for Building Maintenance Works

It is primarily the owners' responsibility to maintain their properties in a timely and proper manner. Nevertheless, some owners might lack financial means or technical knowledge to do so. To assist building owners in carrying out maintenance and repair works, BD administers the Building Safety Loan Scheme (BSLS) which provides loans to individual owners of private buildings to carry out maintenance and repair works to reinstate or improve the safety conditions of their buildings and/or private slopes.

Besides, as Government's partner, the URA has been administering various financial and technical assistance schemes related to building safety and maintenance under the Integrated Building Rehabilitation Assistance Scheme (IBRAS). Amongst which the Building Maintenance Grant Scheme for Needy Owners (BMGSNO) is an enhanced scheme of the Building Maintenance Grant Scheme for Elderly Owners (BMGSEO) with an additional funding injection of $2 billion launched in July 2020. The new scheme has expanded the scope of beneficiaries, raised the subsidy ceiling and relaxed the asset limit for elderly applicants. As of end 2021, around 4 300 applications had been approved in-principle with a total amount of grant committed to be released at around $160 million. Another key scheme is Operation Building Bright 2.0 (OBB 2.0) which was launched in July 2018 to provide technical and financial assistance to eligible building owners for carrying out prescribed inspection and repair works required under the MBIS. With a total commitment of $6 billion, the scheme is expected to benefit 5,000 eligible buildings. Around some 2200 buildings are participating in the scheme as of end 2021.

To address rising public concerns regarding defective drains amid the Coronavirus Disease 2019 (COVID-19) epidemic, the Government announced in the 2021-22 Budget to provide HK$1 billion funding to implement the Building Drainage System Repair Subsidy Scheme (DRS) in partnership with URA. The scheme provides technical and financial support to eligible buildings to conduct investigation, repair, rectification and/or improvement works for drains of the buildings. DRS was launched in May 2021 and is expected to benefit owners of over 3 000 buildings. Around some 672 buildings are participating in DRS as of end 2021.

Apart from financial assistance schemes above, URA has also launched the "Smart Tender" Building Rehabilitation Facilitation Services scheme and Building Rehabilitation Platform to strengthen technical support for property owners to carry out building repair and maintenance works.

Enforcement Actions against Unauthorised Building Works (UBWs) and Building Dilapidation

BD has all along been taking enforcement action against both UBWs and building dilapidation. BD has adopted since April 2011 a revised enforcement policy against UBWs, whereby the scope of UBWs that would be subject to priority enforcement was extended to include UBWs on rooftops and podiums, as well as in yards and lanes of buildings. Under the revised enforcement policy against UBWs and the enhanced enforcement action against defective drainage system arising from COVID-19, BD issued 10 588 removal orders against UBWs and 8 680 repair/investigation orders on building dilapidation in 2021. 3 517 prosecutions have also been instigated by BD for outstanding removal orders of UBWs. In 2021, BD continued to implement the enhanced enforcement strategy against UBWs in New Territories Exempted Houses, and 883 removal orders were issued accordingly.

In face of the heightened public concerns about drainage systems of buildings under the COVID-19, BD in June 2020 commenced a 24-month special measure through the Anti-epidemic Fund with a commitment of $300 million to inspect the external drainage systems of buildings. Under the scheme, the external drainage systems of around 20 000 private domestic buildings exceeding 3 storeys in height across the territory would be inspected. As at the end of 2021, 15 500 buildings had been inspected and BD would follow-up defective drains identified.

5.4 Urban Renewal

Policy

Urban renewal involves redeveloping dilapidated buildings, rehabilitating or retrofitting poorly maintained buildings, revitalising old districts, and preserving buildings of historical, cultural or architectural significance. We formulate the overall urban renewal policy, and provide support to the URA, a statutory body established in May 2001 to undertake urban renewal.

The Urban Renewal Strategy promulgated by the Government in February 2011 (the 2011 URS) is a government strategy to be undertaken by URA and all other stakeholders/participants involved in urban renewal to rejuvenate older urban areas by way of redevelopment, rehabilitation/retrofitting, revitalisation and heritage preservation. Under the 2011 URS, promoting sustainable development in the urban areas is one of the objectives of urban renewal.

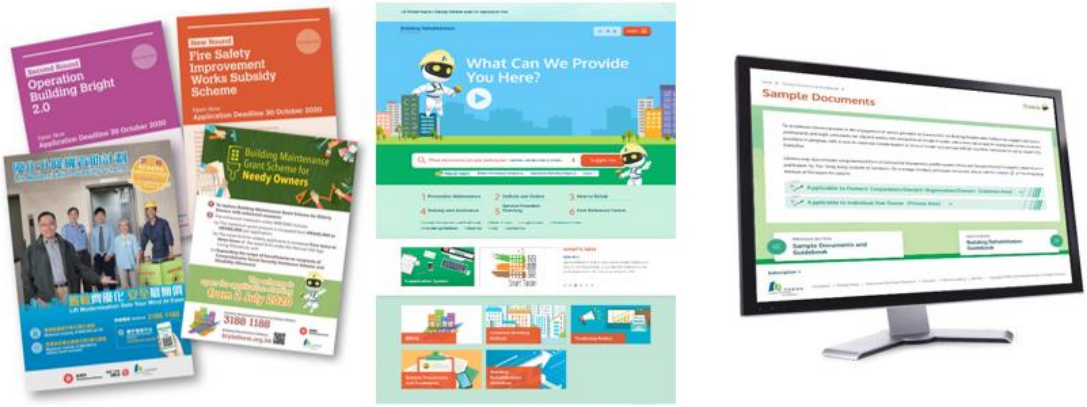
Work of the URA

Under the 2011 URS, URA has adopted "Redevelopment" and "Rehabilitation" as its core businesses.

By end 2021, URA had commenced and implemented a total of 69 redevelopment projects. URA has continued with the district-based approach for implementing its redevelopment projects in Sham Shui Po and To Kwa Wan to improve livability by enhancing the overall planning for the community. URA was also implementing redevelopment projects in Central and Western, Tai Kok Tsui and Yau Mong districts through replanning and rationalising the land use to improve the built environment.

To explore sustainable ways of addressing the problem of urban decay, URA completed in 2021 a district study for Yau Ma Tei and Mong Kok (the Yau Mong District Study) which has recommended ways of enhancing the efficiency of existing land use and the redevelopment potential in the two districts under a holistic planning-led approach. The findings would also serve as the basis for URA to identify more effective strategies and tools in undertaking urban renewal works in the future. The Yau Mong District Study has developed three versions of Master Renewal Concept Plans with varying development intensity and identified several development nodes. A suite of new planning tools such as transfer of plot ratio, interchangeability of domestic and non-domestic plot ratios and site amalgamation under street consolidation areas (SCAs) have also been proposed to incentivise more private market participation in urban renewal to catch up with the pace of urban decay. The Government has been working with the URA to implement the recommendations by phases, which include submitting the first batch of amendments to the OZP to the Town Planning Board in June 2022 to take forward the new planning tools in selected areas of Mong Kok. Based on the experience of Yau Mong District Study, the URA commenced similar district study for Sham Shui Po in August 2022 and the one for Tsuen Wan will commence probably in late 2022.

URA is providing financial and technical assistance to owners in need to rehabilitate their buildings under various assistance schemes and has introduced the Green Items Subsidy under the "Common Area Repair Works Subsidy" to encourage owners to adopt green materials or to install energy efficient building services systems. Meanwhile, URA continues to enrich the content of the Building Rehabilitation Platform (https://www.brplatform.org.hk) which was launched in 2019 as an all-in-one information platform to offer professional and comprehensive information along with technical support on building rehabilitation to building owners. A cost reference centre was launched in March 2021 at the platform to provide the cost range of typical rehabilitation works items for owners' reference.



Since the formalisation of its environmental policy in 2009, URA has been incorporating 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 2021, URA had received 17 BEAM/BEAM Plus Final Platinum, 14 BEAM Plus Final Gold Awards and 10 provisional BEAM Plus rating for projects at the design and construction stages. In addition, URA's Kwun Tong Town Centre Project (K7) Development Areas 2 & 3 and Tonkin Street/Fuk Wing Street Project (SSP-015), clinched the Grand Awards of the Green Building Award 2021 under the categories of Completed Projects (Commercial) and Project Under Construction and/or Design (Residential) respectively for their environmentally sustainable designs.

URA supports the Government's policy to reduce the city's carbon intensity and conducts an annual carbon audit in URA-owned and/or managed premises. The carbon audit of URA's headquarters conducted in 2019-20 resulted in a 34% reduction in carbon emissions against the baseline level. In recognition of this effort, the Environmental Campaign Committee (ECC) awarded the Carbon Reduction Certificate to URA which would remain valid until 2024.

All of URA's main offices obtained the "Good Class" certificate under the Indoor Air Quality Certification Scheme for Offices and Public Places run by the Environmental Protection Department and the Hong Kong Inspection Body Accreditation Scheme for 2021.

In 2021, URA was awarded a Hong Kong Green Organisation Certificate and an "Excellence Level Wastewi$e Certificate" by the ECC for its efforts in waste reduction and recycling. To reduce paper usage, URA has since mid-2016 adopted e-Freezing Surveys for redevelopment projects with the use of tablet computers, and has introduced e-Valuation Report for affected property owners' inspection. In addition, URA has developed an electronic document management system to reduce the filing of hard copies of documents and streamline the workflow to save the paper usage. The system has been fully operated in 2021 to replace the previous filing system.

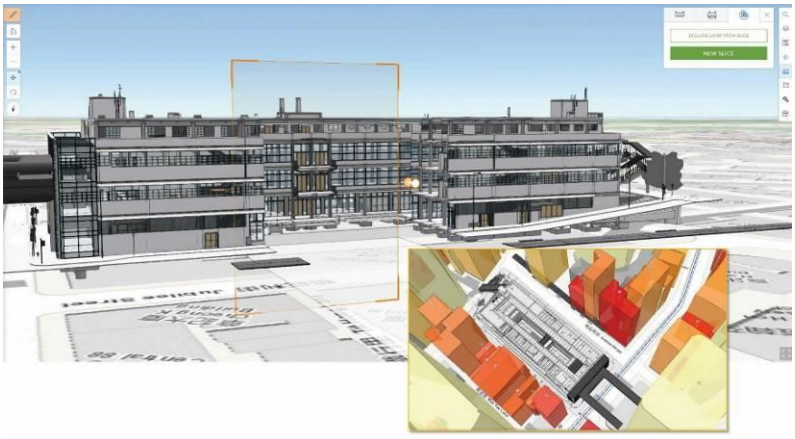
At URA's "H6 CONET", the venue on G/F of The Center for Government, Institution and Community uses, a biofilter system was installed as a green wall to improve the indoor air quality. Besides, Pavegen's energy flooring, another pilot green initiative, was installed. It is a versatile custom-built flooring system generating electricity by pedestrians walk through electro-magnetic induction. The renewable energy is accumulated for real time lighting display for interactive engagement and educational purposes.

Biofilter System and Energy Flooring at H6 CONET

URA has adopted the MiC in the construction of URA's redevelopment project at Ash Street, Tai Kok Tsui. Under MiC, free-standing integrated modules are manufactured in a prefabrication factory and then transported to site for installation in a building. MiC is a sustainable and environmental-friendly construction method, which can reduce dust and noise nuisance from construction to the surrounding environment, minimise construction waste and improve construction waste management.

URA has continued its adoption of Building Information Modeling (BIM) to the business operation. The BIM-Facility Management (FM) system for its preservation cum revitalisation project i.e. 618 Shanghai Street was completed in end 2019 to enhance the efficiency of property management. The system integration with two other URA projects, namely eResidence and Central Market, were also completed in 2021, enabling a centralised BIM-FM platform for effective cross-project comparisons. So far, 618 Shanghai Street was awarded the US AEC Excellence Awards 2019 and the Hong Kong BIM Award 2019 from Autodesk for its application of BIM and development of a sustainable BIM-FM platform. The Central Market was also awarded the Hong Kong BIM Award 2019 from Autodesk for its application of BIM.

BIM-FM System of 618 Shanghai Street



BIM Model of Central Market

5.5 Water Quality and Conservation

Conservation of Fresh Water

In 2021, Hong Kong consumed about 1 055 million cubic metres (mcm) of fresh water. With anticipated population increase and economic growth, fresh water demand will likely rise to about 1 100 mcm in 2040. Even though our current water supply arrangement will be sufficient to meet our forecast demand in the coming years, it is prudent to enhance Hong Kong's water security and resilience to uncertainties such as climate change. Furthermore, we would like to enhance Hong Kong's role as a good partner to other municipalities in the Pearl River Delta in promoting sustainable use of water in the light of rapid growth of water demand in the region. Therefore, in 2008, we promulgated the Total Water Management (TWM) strategy, which has provided a firm foundation to sustain the use of our precious water resources. The strategy was updated in 2019 to cater for the forecast water demand up to 2040. The updated strategy adopts a two-pronged approach with emphasis on containing fresh water demand growth and building resilience in the fresh water supply catering for extreme effects of climate change with diversified water resources.

Enhanced promotion of water conservation is one of the initiatives to contain the fresh water demand growth. Early education is an effective means to inculcate the younger generation about adopting good water saving habits. Against this, our water conservation promotion thrust started at school education. Since 2015-16 school year, the WSD has launched an integrated education programme (IEP) "Cherish Water Campus" for primary schools with the aim to broadening the knowledge of students in water resources and raising their awareness of water conservation and sustainability with the aid of diversified teaching materials. At the end of 2021, over 380 primary schools have joined the programme. Riding on this success, the IEP was extended to kindergartens in 2018-19 school year and 390 kindergartens have joined the programme at the end of 2021.

Since the implementation of the "Let's Save 10L Water" campaign in March 2014, WSD had distributed flow controllers to about 154 000 households who pledged to use water wisely. Flow controllers had also been distributed to about 105 000 households who had successfully applied for the e-Bill Service. Flow controllers had been installed in about 182 000 households in 164 public rental housing estates. Leveraging the effectiveness of the campaign, WSD launched the "Let's Save 10L Water 2.0" Campaign in 2019. Through organising a series of activities including "Free Installation of Flow Controllers at Private Housing Estates and Private Schools Scheme", and "Innovative Water Efficient Showerhead Design Competition", WSD strived to promote water cherishing culture to all walks of life. To enhance the appeal of the water-saving messages and raise awareness of water conservation and management initiatives, a suite of water-saving tips and applications in different daily life

scenarios were also designed and promoted by a popular celebrity in an edutainment approach. Various water conservation messages in multimedia formats were broadcast in different communication channels covering social media, website, publications and outdoor spots. With the aim of further enhancing public's knowledge of water conservation, a new public education centre named as H_2O Public Education Centre ("H_2OPE Centre"), was established in Tin Shui Wai in 2019. Although the centre was temporarily closed in January to mid-February 2021 owing to the COVID-19 pandemic, it received about 36 000 visitors in 2021.

As regards non-domestic consumers, WSD has carried out retrofitting works to replace plumbing appurtenances with water saving devices, and has installed flow controllers to existing taps and showers in government venues, schools and statutory organisations. WSD has also issued best practice guidelines for efficient use of water for high water-consuming government departments and commercial trades (e.g. hotel and catering industries). WSD also collaborated with the Green Council to launch a water conservation campaign with the participation of enterprises to cultivate behavioural change to achieve efficient use of water in the industrial and commercial sectors.

Since 2009, WSD has launched the voluntary Water Efficiency Labelling Scheme (WELS) to provide more information to consumers regarding the water consumption level and efficiency rating of the plumbing fixtures and water-consuming devices, which helps consumers choose water efficient products for water conservation. Up to end 2018, WELS has covered showers for bathing, water taps, washing machines, urinal equipment, flow controllers (for use in showers for bathing and water taps) and water closets. To further promote the use of WELS products, the mandatory use of WELS products has been fully implemented since 1 February 2018. Under the mandatory requirements, for all proposed plumbing works for kitchens of domestic premises as well as for bathrooms and toilets in all premises that involve the use of designated products (viz. showers for bathing, water taps and urinal flushing valves), the products to be used should be registered under WELS and fulfil the prescribed water efficiency requirements, unless exemption is granted under special circumstances. The above requirements have been extended to water closets since 1 December 2020.

To further enhance the mandatory WELS, WSD is carrying out the legislative review in relevant aspects. Through the proposed legislative amendment, the registration under WELS of the prescribed products to be supplied to Hong Kong is mandatory, and a valid WELS label has to be affixed on these products (or their individual packages) for sale in retail outlets.

Notwithstanding the continued efforts on water conservation, Hong Kong's per capita fresh water consumption has risen from about 137 cubic metres per year to 142 cubic metres per year mainly owing to the growing need for public

hygiene and personal health under the COVID-19 pandemic. WSD will continue to raise the awareness of the public on water conservation and implement effective measures to increase efficiency of water usage without compromising the need for public hygiene and personal health.

The substantial completion of the Replacement and Rehabilitation Programme for about 3 000 kilometres water mains in 2015 has brought about significant improvement to the water supply networks. The number of water mains burst incidents has decreased substantially from the peak of over 2 500 cases in 2000 to about 30 cases in 2021. The water mains leakage rate has also been reduced from exceeding 25% in 2000 to about 15% in 2021.

WSD is progressively establishing a Water Intelligent Network (WIN) for continuous monitoring of network performance in a holistic manner. Under WIN, about 2 400 District Metering Areas (DMAs) with high-technology monitoring and sensing equipment installed, will be established within the fresh water distribution network. As at end 2021, some 1 550 DMAs had been set up. A Water Intelligent Network Management System had been put in place for analysing the data collected for continuous monitoring of the conditions of the networks. WIN will help prioritise DMAs for follow-up actions and determine the most effective network management measures (including active leakage detection and control, pressure management, quality and speedy repair of problematic water mains, replacement and rehabilitation of water mains which are beyond economic repair, etc.) for maintaining the healthiness of the networks.

To save our precious fresh water resources, WSD has been supplying seawater for toilet flushing since 1950s. On average, it saves about 320 million cubic metres (mcm) of fresh water for toilet flushing every year. Following completion of the infrastructures for the supply of seawater to Pok Fu Lam and North West New Territories (Tuen Mun East, Yuen Long and Tin Shui Wai), the population coverage has increased from 80% to 85%. Conversion of toilet flushing supply to seawater in Tin Shui Wai and some major housing estates in Yuen Long was completed at the end of 2016 and 2017 respectively, and conversions in Pok Fu Lam, Tuen Mun East and the remaining areas in Yuen Long are now underway. The seawater supply network to Tung Chung New Town and its extension is being constructed for commissioning by the end of 2023.

On the supply side, alternative water resources that are not susceptible to climate change including seawater desalination and recycled water are being developed. The “Design, Build and Operate” contract for the first stage of Tseung Kwan O Desalination Plant commenced in December 2019 targeting for commissioning in 2023. The first stage of the desalination plant will have a water production capacity of about 135 million litres per day (Mld) to meet about 5% of fresh water demand in Hong Kong, and will have provision for future expansion to the ultimate water production capacity of 270 Mld when necessary.

WSD also targets to effect the supply of reclaimed water to the north-eastern part of the New Territories progressively starting with Sheung Shui and Fanling from 2024 onwards. The associated infrastructures are under construction. The estimated amount of fresh water that can be saved by supply of reclaimed water to the north-eastern part of the New Territories for toilet flushing is about 22 mcm per year after full commissioning. Furthermore, WSD is constructing a centralised grey water recycling system where grey water (viz. water collected from baths, showers, wash basins, kitchen sinks, laundry machines etc. except toilets) collected from inhabitants at the Anderson Road Quarry development site will be treated and supplied for toilet flushing and other non-potable purposes. The system with a treatment capacity of 3 300 cubic metres per day is targeted for commissioning in end 2023.

To further ensure sustainable use of water resources, WSD will continue to regularly review the TWM strategy and update it as needed to further strengthen Hong Kong's resilience and preparedness to future uncertainties and challenges.

5.6 Energy Efficiency and Conservation

Water-cooled Air-conditioning Systems

Since its launch in 2000, the Fresh Water Cooling Towers (FWCT) Scheme 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 2021, the EMSD had received 1 285 applications since the introduction of FWCT Scheme. Amongst them, 2 969 FWCTs have been completed and put into operation. It is estimated that these successful installations could save up to about 662 million kWh electricity annually, which is equivalent to around 463 000 tonnes of carbon reduction.

5.7 Minimising Environmental Impact by Public Works Policies

The environmental issues associated with the construction industry are unique and complex. Notwithstanding these challenges, every practicable measure is taken to ensure that the environmental integrity of the projects under the Public Works Programme is continually preserved through improved management and enhanced controls. To achieve this objective, we have implemented a range of environmental improvement measures in public works projects, including the introduction of a systematic environmental management process, the application of more effective nuisance controls, the promotion of recycling and reduction of construction and demolition waste, the wider use of recycled aggregates and other green construction materials, the improved requirements of site cleanliness and tidiness, and the enhanced tree preservation measures, etc.

We have set out comprehensive guidelines and procedures for conducting environmental impact assessment for projects falling outside the coverage of the Environmental Impact Assessment Ordinance, in order to attain the highest standard in environmental performance. Contractual provisions have been included in public works contracts to require contractors to adopt the best environmental site practices. We will continue to improve the design and construction planning of public works projects to further reduce their impact on the environment.

Specifically, we require, as part of our works policies, project proponents to prepare a Construction and Demolition Materials Management Plan for identifying and implementing measures to minimise generation of construction waste and maximise its reuse/recycling through proper planning and design. We have applied the concepts of standardisation, simplification and single integrated element, and used prefabricated components during the design and construction stages of works. We have promulgated specifications to promote the use of recycled aggregates in filling works, road sub-base construction, concrete production, etc. Also, site hoardings and signboards are made of metal material to facilitate reuse. Moreover, we have stopped using tropical hard wood in falsework, formwork and other temporary works. We require public works contractors to prepare and implement an Environmental Management Plan (EMP) setting out effective measures to control nuisances such as air, noise and water pollution, and to minimize generation of construction waste. The EMP also stipulates the need of on-site sorting of construction and demolition materials to facilitate recovery, reuse and recycling.

Green Procurement in Public Works Projects

The Government has been taking the lead in making Hong Kong a green city through a number of measures including the expansion of green procurement in the Government. In this connection, ENB has set up an Inter-departmental Working Group on Green Government Procurement. To encourage the wider use of green materials in public works projects, we have set up a Sub-group on Green Procurement in Public Works Projects under the above Inter-departmental Working Group to identify and monitor the use of green materials in public works projects and to formulate guidelines, policies and strategies to promote their use.

Under the current framework for procurement of recycled and other green materials in public works projects, works departments and HD 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 2021, about 635 000 m^2 of eco-pavers have been laid in both public works projects and housing projects.

We continued to explore and promote the wider application of other recycled and green construction materials in public works projects such as waste glass cullets as fill materials in reclamation projects, recycled asphalt pavement in road works and manufactured sand for production of cement mortar in plastering, rendering and floor screeding works.

We continued to use electric vehicles in public works contracts as far as practicable. 190 electric vehicles were in service under the on-going public works contracts by end of 2021. About 40 more electric vehicles are expected to be procured progressively under various works contracts in 2022.

Control on Contractors' Environmental Performance

Contractors' environmental performance has a major impact on the successful implementation of our environmental policies. In this regard, we have been monitoring and assessing the environmental performance of public works contractors, and regulating action in the form of suspension from tendering may be taken against any contractors with repeated convictions in environment-related offences or poor site hygiene.

Further Enhancement Measures and Low-carbon Construction

Environmental management is an ongoing task that needs tenacity, vigilance and foresight. To achieve this and to set an example for the construction industry to follow, we will continue to promote the use of green materials in public works projects, to promote good waste management practices and measures through public awards, in-house training and workshops, to review and refine the operation of environmental management measures on public works

sites, and to strengthen and enhance the "trip ticket" system. We are also considering the implementation of the requirement that only public works contractors and consultants with certification for environmental management systems to the ISO 14001 standard are eligible for tendering public works contracts and consultancies. The ISO 14001 certification will facilitate construction companies to ensure continual environmental improvement, comply with legislation, reduce environmental risks and liabilities, and enhance staff environmental awareness.

With a view to encouraging the use of non-road mobile machinery (NRMM), meeting the emission requirements under the legislation and accelerating the phasing out of the non-compliant NRMM, we have promulgated requirements mandating the use of four types of NRMM approved under the legislation in new major capital works contracts in a progressive manner.

The green site measures for reducing carbon emissions in public works projects continued in 2021. To actively pursue green site offices in public works projects, we have adopted the specifications for sustainable designs and green features. 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.

5.8 Greening, Landscape and Tree Management

Policy

Landscape and trees are integral parts of our outdoor environment. They contribute to our quality of life by providing passive amenity, moderating temperature, improving air quality and enhancing the visual appeal and biodiversity of our densely built-up city. The Greening, Landscape and Tree Management Section (GLTMS) in DEVB targets to promote a holistic approach to enhance the quality of landscape environment of Hong Kong by:

- formulating urban forestry lifecycle planning for a more sustainable and resilient soft landscape environment;
- delivering quality landscape planning and design in the upstream, while undertaking more diligent vegetation management and maintenance in the downstream;
- developing sustainable urban landscapes, promoting the principles of "Right Tree, Right Place", vegetation diversity, and blue-green assets;
- coordinating government's efforts in the effective implementation of the tree risk assessment and management (TRAM) regime; and
- promoting proper tree care on private properties, building capacity in the workforce, and stepping up community education and involvement.

Urban Forestry Support Fund

To build up the strength and capability of the arboriculture and horticulture industry to keep our urban forestry healthy and safe, the DEVB launched the $200 million Fund in 2020 to implement a number of initiatives including the Study Sponsorship Scheme (SSS), Trainee Programme (TP), International Urban Forestry Conferences (IUFC) and public education and promotion campaigns. Under the SSS, youngsters are encouraged to undertake recognised arboriculture, tree management and tree work training programme with financial incentives in forms of sponsorship and scholarship. The TP provides trainees with on-the-job training to enable them to acquire practical working experience to become qualified arborists and tree climbers upon graduation. By end of 2021, 436 students had applied for subsidy under the SSS, and 97 trainees had been engaged by Government departments and private sector under the TP.

To promote the concept of urban forestry, including its benefits and the strategies adopted in Hong Kong, the GLTMS published an Urban Forestry Pamphlet in April 2021. Complementary promotions such as bus body

advertisements, online advertorials and videos were produced to enhance public awareness and general knowledge on urban forestry. To engage public in a more active participatory mode, roving exhibitions in three shopping malls were organised from July to September 2021. Through exciting and interactive games, children and visitors had learnt more about the trees around us and the concepts of urban forestry, and how green assets could contribute to the liveability of our city. Since then, the exhibition panels have been displaying at various locations which would continue till mid of 2022. The exhibition activities attracted over 33 000 participants in 2021.

Urban Forestry Pamphlet

Children enjoying the interactive games at Urban Forestry Roving Exhibition

Registration Scheme for Tree Management Personnel

The GLTMS rolled out the Registration Scheme in December 2020 which aims to recognise, uplift and standardise the standard of five types of arboriculture practitioners who are responsible for tree inspection and various tree works, namely arborists, tree risk assessors, tree work supervisors, tree climbers and chainsaw operators. All qualified in-service practitioners are welcome to register the scheme which is voluntary, free of charge and with a validity period of three years. In renewal of the registration, registered personnel are required to attend continuing professional development courses on arboriculture to keep them abreast of the latest techniques and development in the industry and uplift their competency. By end of 2021, a total of 426 applicants had successfully registered under the Registration Scheme. Government departments have specified the engagement of registered personnel by their contractors to carry out tree related works in new works and maintenance contracts.

Application of Technologies in Tree Management

Given the large number of trees in the urban areas, effective urban forestry measures with the application of smart technology in tree management is of utmost importance to keep our urban forest healthy and minimise tree failure risks, thereby protecting public safety. The GLTMS has been installing Quick Response (QR)-coded tree labels which facilitate the public to report problematic trees via "1823" and offer a convenient avenue for the public to access

educational information on tree species including traits and anecdotes for identification. About 20 000 QR-coded tree labels have been installed at trees along footways by end of 2021. We plan to display a total of about 200 000 tree labels by mid of 2022.

QR-coded Tree Label

Promoting Proper Tree Care on Private Properties

The GLTMS reminds property managers and private property owners before the wet season to undertake tree risk assessments for trees on their properties and carry out timely mitigation measures. In support of property managers and private property owners in this respect, the GLTMS organises seminars and field demonstrations to explain the key points of tree care work and the proper ways to conduct tree risk assessments. In 2021, nine public seminars, webinars and workshops for property management staff and property owners were organised with about 900 participants. The GLTMS will continue to organise training courses and sharing sessions for property management staff and property owners to strengthen their awareness and knowledge on proper tree care, with the aid of the online tool.

Promoting Good Practice in Tree Management and Raising Public Awareness of Tree Care

To raise the professional standards of the industry, the GLTMS organises a wide range of training programmes for both government staff and members of the industry. About 5 000 participants were recorded in 2021. In collaboration with other departments, District Councils, schools and non-government organisations, a variety of public education and community involvement activities including school talks, public seminars, and a roving

exhibition on various tree management topics were also organised. About 7 100 participants were recorded in 2021.

Public seminar on promotion of good practice in tree management

5.9 Heritage Conservation

Policy Statement

As promulgated in 2007, the Government seeks "to protect, conserve and revitalise as appropriate historical and heritage sites and buildings through relevant and sustainable approaches for the benefit and enjoyment of present and future generations. In implementing this policy, due regard should be given to development needs in the public interest, respect for private property rights, budgetary considerations, cross-sector collaboration and active engagement of stakeholders and the general public."

Current Framework of Heritage Conservation

Statutory Monument Declaration System

In accordance with section 3 of the Antiquities and Monuments Ordinance (Cap.53) (the Ordinance), SDEV as the Antiquities Authority may, after consultation with the Antiquities Advisory Board (AAB) and with the approval of the Chief Executive declare, by notice in the Gazette, any place, building, site or structure, which the Authority considers to be of public interest by reason of its historical, archaeological or palaeontological significance, to be a monument. Declared monuments are afforded statutory protection under section 6 of the Ordinance, which prohibits any excavation, carrying on building or other works on the monuments, and any action to demolish, remove, obstruct, deface or interfere with the monuments unless a permit is granted by the Authority.

Administrative Grading System

The AAB, having regard to the assessments of the heritage value of individual historic buildings by an independent Historic Buildings Assessment Panel and the views and additional information received from members of the public and the owners of the buildings concerned during public consultation, has accorded Grade 1, Grade 2 and Grade 3 (or nil grade) status[2] to individual historic buildings. Since 2005, the following six criteria have been used to assess the heritage value of historic buildings: historical interest, architectural merit, group value, social value and local interest, authenticity, and rarity. The grading system is administrative in nature, providing an objective basis for determining the heritage value, and hence the preservation need, of historic buildings in Hong Kong.

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[2] Under the grading system, Grade 1 status refers to buildings of outstanding merit, which every effort should be made to preserve if possible; Grade 2 status refers to buildings of special merit; efforts should be made to selectively preserve; and Grade 3 status refers to buildings of some merit; preservation in some form would be desirable and alternative means could be considered if preservation is not practicable.

Internal Monitoring Mechanism

The Government has established an internal mechanism to monitor any demolition of/alterations to declared monuments, proposed monuments, graded buildings or/ buildings proposed to be graded. Under the mechanism, BD, LandsD and PlanD will notify the Commissioner for Heritage's Office (CHO) and the Antiquities and Monuments Office (AMO) of DEVB regarding any possible threat which may affect privately-owned sites of archaeological interests, monuments and historic buildings that have been brought to the departments' attention through applications and enquiries received and in the normal course of duty such as regular inspections.

The monitoring mechanism enables the CHO and AMO to take timely follow-up actions with the private owners concerned, e.g. approaching them to explore conservation options. On the premise of respecting private property rights, we will offer appropriate economic incentives to encourage private owners to conserve their historic buildings. In implementing this policy, we aim to strike a balance between preservation of historic buildings and respect for private property rights. The economic incentives for different historic buildings will be considered on a case-by-case basis.

Built Heritage Conservation Fund

We set up the Built Heritage Conservation Fund (BHCF) in 2016 to provide financial support for public education, community involvement and publicity activities, as well as academic research. The BHCF also funds other existing government initiatives and activities on built heritage conservation, including the Revitalising Historic Buildings Through Partnership Scheme (the Revitalisation Scheme) and the Financial Assistance for Maintenance Scheme on Built Heritage.

Revitalising Historic Buildings Through Partnership Scheme

Launched in 2008, the Revitalisation Scheme aims to preserve and put government-owned historic buildings into good and innovative use; to transform historic buildings into unique cultural landmarks; to promote active public participation in the conservation of historic buildings; and to create job opportunities, in particular at the district level.

Under the Revitalisation Scheme, non-profit-making organisations are invited to submit proposals to revitalise selected government-owned graded historic buildings in the form of social enterprises. Selection of revitalisation proposals rests with the Advisory Committee on Built Heritage Conservation.

Where justified, we will provide financial support to the revitalisation projects, including:

- one-off grant to cover the costs of major renovation to the buildings, in part or in full;

- nominal rental for the buildings; and

- one-off grant to meet the starting costs and operating deficits (if any) of the social enterprises for the first two years of operation up to $5 million, on the condition that the proposals would become self-sustainable after this initial period.

Financial Assistance for Maintenance Scheme on Built Heritage

The Government has implemented the Financial Assistance for Maintenance Scheme on Built Heritage since 2008 to provide subsidies to private owners of graded historic buildings as well as non-profit-making organisations leasing government-owned declared monuments or graded historic buildings to carry out maintenance works. The grant ceiling for each successful application is $2 million.

Heritage Impact Assessment

To avoid undue impact on heritage conservation, project proponents for new capital works projects are required to assess whether their projects will affect sites or buildings of historic or archaeological significance (collectively known as "heritage sites"). If so, they have to undertake a Heritage Impact Assessment and devise mitigation measures as appropriate.

Progress of Heritage Conservation Initiatives

We have made good progress with a number of initiatives on heritage conservation in 2021:

- the BHCF operates two funding schemes to support public engagement programmes and research projects. Public engagement activities conducted under the fund in 2021 included an online forum and two online workshops. By 31 December 2021, public engagement activities under the fund had recorded a total of over 16 100 participants since the projects' commencement in 2018. Besides, five online guided tour videos were produced for public viewing.

- as of December 2021, 22 historic buildings have been included in six batches of the Revitalisation Scheme, of which 10 projects were in operation.

Five projects won the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation, including the top honour of Award of Excellence won by the Blue House Cluster revitalisation project in the 2017 edition;

- three Grade 1 historic buildings, namely, Bonham Road Government Primary School in Sai Ying Pun, the Old Tai Po Police Station in Tai Po and Hip Tin Temple in Sha Tau Kok were declared as monuments in accordance with the Ordinance in 2021. As of December 2021, there were 129 declared monuments in Hong Kong;

- as of December 2021, the AAB has confirmed the grading of 1 592 historic buildings. The AAB will continue to take forward the grading exercise and proceed to examine the remaining items on the list of 1 444 historic buildings and new items; and

- in 2021, the CHO organised a series of the public education programmes and activities, including the "Heritage Fiesta cum Roving Exhibition" and the promotion of photo points located at the historic buildings under the Revitalisation Scheme. A bimonthly newsletter "活化@Heritage" featuring heritage issues and the work of the CHO has been published since 2008.

5.10 Energizing Kowloon East

Policy

The adoption of a visionary, coordinated and integrated approach to expedite the transformation of Kowloon East into another core business district (CBD2) to support Hong Kong's economic development was first announced in the 2011-12 Policy Address. In June 2012, a dedicated Energizing Kowloon East Office (EKEO) was inaugurated to steer, oversee and monitor the transformation. Kowloon East comprises the Kowloon Bay Business Area (KBBA), the Kwun Tong Business Area (KTBA) and the Kai Tak Development Area, with a total area of about 488 hectares. As promulgated in the Policy Agenda in October 2017, the Energizing Kowloon East Initiative has been extended to cover the 26-hectare San Po Kong Business Area (SPKBA).

The temporary office building of EKEO under Kwun Tong Bypass is Hong Kong's first temporary office building accredited with the BEAM Plus (New Buildings) Platinum rating. The building was subsequently accredited with the BEAM Plus (Existing Buildings) Platinum rating in 2020. It demonstrates various environmental benefits and enhances the public's awareness of the Energizing Kowloon East initiative.

Energizing Kowloon East Office

Facilitation of Transformation Process

To facilitate the urban transformation process in Kowloon East, EKEO applies a "place-making" approach which is an integrated strategy for planning, design, implementation, management and community engagement to create quality public spaces for public enjoyment and bring improvements to the pedestrian environment. EKEO engages various stakeholders including local organisations, professional institutions, property owners, District Councils and the general public to collect their views. By the end of 2021, EKEO had organised about 800 briefings, seminars, workshops, forums, conferences,

exhibitions and visits, involving about 23 000 participants, including those from 25 countries and the Mainland.

The Conceptual Master Plan (CMP) provides a broad framework to guide the formulation of major actions to facilitate the transformation process of Kowloon East. It is a living and evolving document updated periodically to take on board public views received in various public engagement process. The latest CMP 6.0, promulgated in January 2022, has been prepared with the emphases of (i) enhancing connectivity, walkability and mobility; (ii) developing a smart, green and resilient CBD; (iii) ensuring sustainable growth; and (iv) promoting the "spirit of creation", under a visionary, co-ordinated and integrated approach.

CMP 6.0

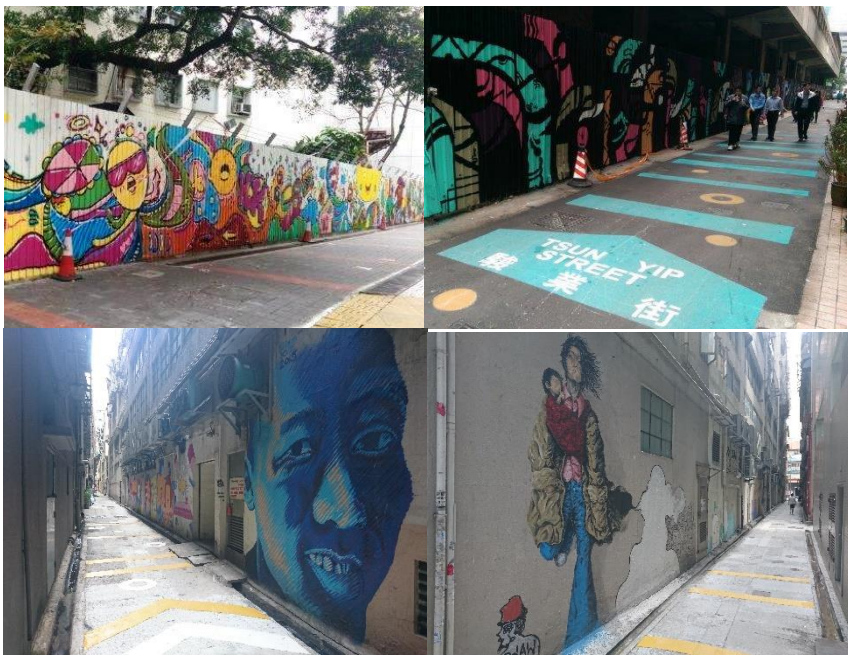
The sustainability concept of "walkability" in Kowloon East is advocated through improving connectivity and enhancing the pedestrian environment with a view to encouraging the public to walk more instead of relying on vehicles running fossil fuel. We formulated various quick-win and short-term proposals to improve the pedestrian environment as well as traffic conditions in KBBA and KTBA. As at the end of 2021, we completed over 85% of the about 90 quick-win and short-term improvement schemes. We also formulated a pedestrian environment and traffic improvement framework and a set of schemes for SPKBA for public engagement in November 2018. In tandem, we are taking forward the planning and design of various medium and long-term schemes in collaboration with relevant government departments, including the footbridges and subways near MTR Kowloon Bay Station and Ngau Tau Kok Station and an elevated walkway between Kowloon Bay and the New Acute Hospital.

Short-term improvement schemes in KTBA

Proposed footbridges near Kowloon Bay Station (artist's impression)

Proposed elevated walkway to the New Acute Hospital (artist's impression)

We will continue to collaborate with different organisations and government departments to improve the back alleys in Kowloon East to further improve pedestrian connectivity.



Revitalised Back Alleys in Kwun Tong

In the past 10 years, over 17 hectares of open spaces in Kowloon East have been provided or refurbished, including the Hoi Bun Road Park which was opened to the public in August 2021. To further improve the environment in Kowloon East, we are working with relevant government departments on various projects, including the transformation of the King Yip Street nullah into a green and vibrant "Tsui Ping River", improvement of Lam Wah Street Playground as well as their adjacent areas, and the implementation of district open space, sports centre and public vehicle park at Sze Mei Street.

Hoi Bun Road Park

On promoting green buildings, 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 2021, a total of 52 buildings in Kowloon East and five buildings in SPKBA have achieved such rating. The Green Map on EKEO's website shows all green buildings with BEAM Plus Gold or Platinum rating in Kowloon East and provides information of the green buildings. We will continue to enrich and update the Green Map.

Opportunities have been taken to investigate further novel green measures in the comprehensive development of the two action areas in KBBA and KTBA, as well as the former Kai Tak Runway Tip area.. Concepts of sustainable development, smart city initiatives and resilient design are proposed for incorporation into these developments.

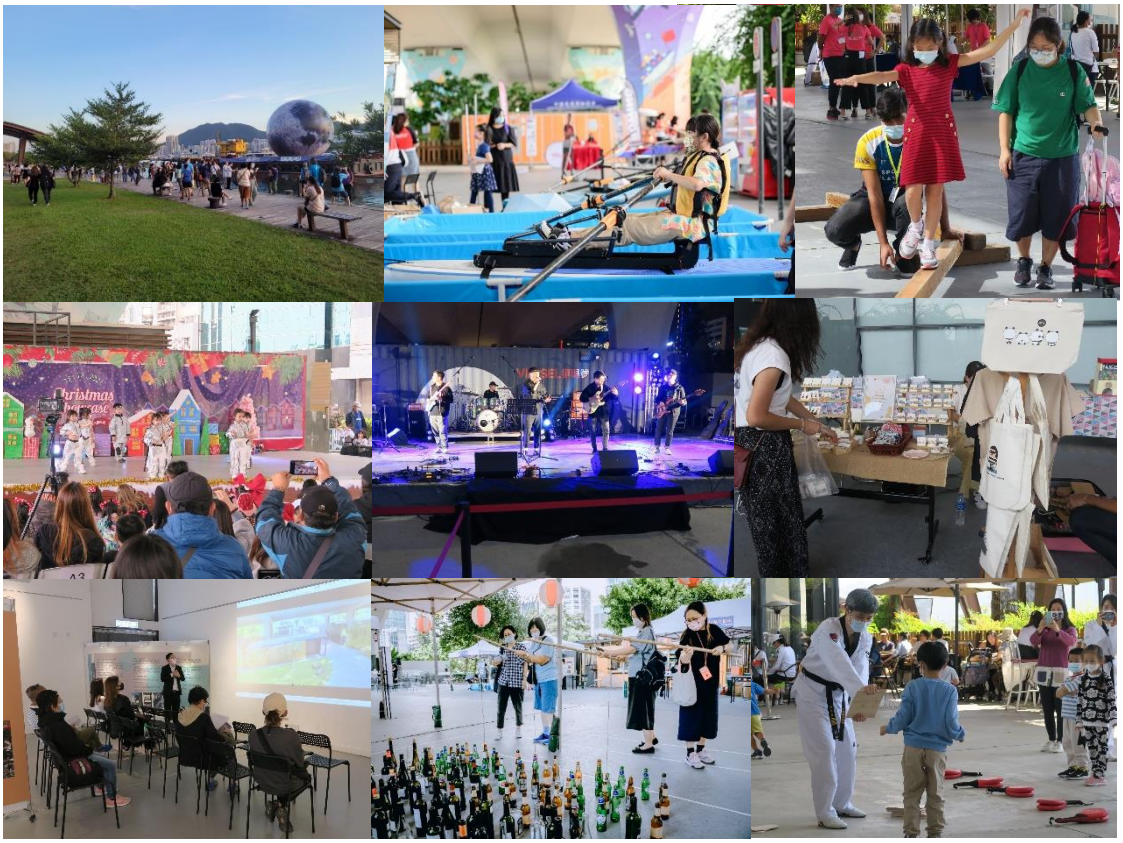
Kowloon East is a pilot area for exploring the feasibility of smart city development in Hong Kong. We have formulated a framework strategy, set direction and priority for various innovative proposals for Kowloon East. Various proof of concept (PoC) trials to demonstrate the effectiveness of some innovative proposals that have been carried out in Kowloon East, such as the "Real-time Water Quality Monitoring System" which adopts innovative technologies to real-time monitor the *E.coli* level at the Kwun Tong Typhoon Shelter.

As part of our initiative to provide a vibrant waterfront, and better land utilisation, we introduced the "Fly the Flyover Operation" and transformed three underutilised sites beneath Kwun Tong Bypass into facilities to serve the community, which include informal performance venue with flexible and green design for diversified activities, a gallery, outdoor open spaces, multi-purpose rooms, urban farming, eating places and pop-up stores.

Fly the Flyover and Operation beneath Kwun Tong Bypass

Through partnering with a non-government organisation, we will continue to organise and support various place-making events such as arts and musical performances, exhibitions, family fun days, carnivals, sporting events including water sports activities. As at the end of 2021, over 1 100 events organised by

various groups were held at the Fly the Flyover sites with more than 530 000 participants. Besides, the total participants of various events and activities in Kowloon East supported by our office attracted more than 1 120 000 participants. We also facilitated the Short Term Tenancy applications for setting up water sports facilities to promote water body co-use in Kwun Tong Typhoon Shelter (KTTS) and enhance vibrancy to the waterfront. Sites at the KTTS waterfront were handed over to the Kwun Tong Sports Promotion Association Limited and the Hong Kong Water Sports Council in 2021. Another site would be handed over to the Hong Kong Canoe Union by mid-2022. With progressive improvement in the water quality and implementation of water body co-use in the KTTS, more water sports and recreation activities and events are expected to be organized here.



Place-making events in Kowloon East

5.11 Invigorating Island South

Policy

The Invigorating Island South (IIS) initiative announced in the 2020 Policy Address aims to develop the Southern District into a place full of vibrancy, vigour and velocity for people to work, live, explore new ideas and have fun. The Invigorating Island South Office (IISO) was set up in February 2021 to engage and collaborate with stakeholders, and to take forward the IIS initiative.

Conceptual Master Plan for Focus Areas

In August 2021, IISO formulated the first Conceptual Master Plan (CMP 1.0) covering the IIS focus areas – Wong Chuk Hang, Aberdeen and Ap Lei Chau. Between August and November 2021, IISO conducted briefings on CMP 1.0 for over 30 stakeholder groups. Stakeholders' comments were incorporated, where appropriate, in the preparation of CMP 2.0. Embracing the four main strategies in the CMP, i.e. enhance connectivity and walkability, improve urban environment, unleash development potential, and enliven the district, IISO coordinates the overall planning and implementation of various measures and projects to foster the development and liveability of the Southern District, in particular the IIS focus areas.

IIS Focus Areas

Enhance Connectivity and Walkability

IISO commissioned a consultancy study in December 2021 to formulate comprehensive proposals for improving the pedestrian environment and traffic to bring vibrancy to the IIS focus areas. The study placed emphasis on enhancing connectivity and walkability including face-lifting the public realm, such as a

landscape corridor along Heung Yip Road and Staunton Creek Nullah. To bring earlier benefits to the public, some quick-win measures such as provision of additional pedestrian crossing facilities, and repaving of footpaths and road carriageways are being taken forward progressively. More improvement proposals are under formulation.

Improve Urban Environment

IISO is taking forward a number of place-making projects, one of which is the "Green Link in Wong Chuk Hang" aiming to connect MTR Wong Chuk Hang Station and Aberdeen Country Park through a series of attractive sitting-out areas and pedestrian facilities. The project includes improvements to two sitting-out areas and the nearby staircases, back alley and slopes, and the provision of a hiking trail to connect with Aberdeen Nature Trail. To gather creative and innovative ideas for the implementation of this project, a design competition was jointly organised by IISO, ArchSD and the Hong Kong Institute of Architects in September 2021, with more than 30 entries received.

Sites along Proposed Green Link in Wong Chuk Hang

IISO is working with DSD and other relevant government departments to formulate proposals for revitalising Staunton Creek Nullah into a river with environmental and landscape upgrading, integrating with the adjoining public spaces. As part of the nullah revitalisation proposals, a boardwalk along the northern bank in the downstream section has been proposed while landscape

enhancement will be provided in the upstream section. The revitalisation project and related open space improvements would contribute to creating a green urban environment.

Staunton Creek Nullah and Adjacent Area

Moreover, IISO and the Environmental Protection Department are exploring the feasibility of providing a recycling station under GREEN@COMMUNITY to promote environmental education and recycling in the Southern District as well as providing outdoor landscaped area for public enjoyment.

Unleash Development Potential

Apart from providing facilitation services to help expedite wholesale conversion (which would make better use of the existing industrial building stock) or redevelopment of industrial buildings in the Wong Chuk Hang Business Area, IISO is exploring with relevant government bureaux and departments the redevelopment and consolidation of government, institution or community and open space facilities, such as existing recreation ground, sports ground, sports centre and swimming pool facilities in Wong Chuk Hang, to promote "single site, multiple use" and optimise the use of land resources.

Enliven the District

IISO is working with the government departments concerned to formulate proposals for enhancing the waterfront on both sides of Aberdeen Typhoon Shelter to bring more vibrancy. As quick-win measures, the enclosed landscaped and grassed areas near Ap Lei Chau Park and the fenced-off space next to a sewage pumping station will be improved and opened for public enjoyment.

Open up enclosed areas for public enjoyment

With the technical support of CEDD, the expansion of Aberdeen Typhoon Shelter was found feasible to provide more vessel berthing area to give new vigour to Aberdeen Harbour. Preparation for commencing an investigation, design and construction consultancy in 2022 is underway.

IISO will continue to engage stakeholders and invite their feedback on the measures and projects proposed under the IIS initiative. More ideas may emerge in the course of interactions with stakeholders, both within and outside the Government, contributing to building a liveable city by collaborative efforts.

6. GREEN OFFICE MANAGEMENT

We are committed to improving and conserving our environment, and optimising the use of resources to reduce pollution and waste. We strive to implement various green housekeeping measures in daily office operations with a view to maintaining a green workplace and setting a good example for our departments. Our main focus of the green office management is on reducing paper and energy consumption.

Managing Paper Consumption

We have adopted a wide range of green housekeeping practices in daily office operations. We will continue our advocacy of environmental conservation and adopt the following green initiatives:

- use recycled paper in office operations;
- print and photocopy on both sides of paper;
- reuse single-side used paper for drafting, printing and receiving fax;
- reuse envelopes, loose minute jackets and action tags for internal transmission of documents and correspondence;
- communicate and disseminate information by electronic means within bureaux/departments as well as with members of the public;
- avoid printing or photocopying documents unless hard copy is absolutely necessary;
- keep the number of paper publications and copies of circulars to the absolute minimum;
- distribute softcopies by emails or CD-ROMs instead of print-outs;
- upload reports and consultation papers, circulars, posting notices, telephone lines and other publicity materials on e-bulletin board, intranet and internet website for circulation and general reference;
- avoid sending original documents which have been sent by fax or email;
- avoid the use of fax leader sheet unless it is absolutely necessary;

- send festive greeting cards by electronic mail, upload them to our homepage and minimise the use of printed cards; and

- encourage staff to use their own cups instead of paper-cups.

Managing Energy Consumption

To achieve the target of reducing energy consumption in government offices and buildings, we have adopted the following energy saving measures:

Energy Saving Measures Taken	
Lighting	• motion sensors are installed in both office and common areas like lift lobbies, meeting and conference rooms and toilets, and lights will be automatically turned off within 10 to 15 minutes when no motion is detected by the sensors; • staff are encouraged to switch off lights when they leave the cellular offices so as to achieve energy saving, in addition to installation of motion sensor lighting; and • task lighting is used in open plan offices and cellular offices without meeting facilities so as to achieve lower lighting power density, which in turn will save electricity and reduce CO_2 emission.
Air-conditioning	• the air-conditioning provision inside cellular offices will be adjusted to a minimum level when no motion is detected by the sensors; • air-conditioning provision hours are adjusted according to operational needs; • maintain room temperature at 25.5℃ in summer season; • staff are encouraged to dress lightly to minimise use of air-conditioning in hot months; and • staff are encouraged to lower window blinds or curtains before leaving office to reduce direct sunlight on the following day.

Energy Saving Measures Taken	
Computers, photocopiers and other electrical appliances	• activate the standby mode features of personal computers; • staff are encouraged to switch off monitors during lunch and when the staff are away from the workplace for meeting; • staff are encouraged to switch off personal computers, photocopiers and other electrical appliances when they are not in use or after office hours;

Energy Saving Measures Taken	
	• switch off non-essential servers after office hours; and • set all photocopiers to energy saving mode when they are not in use for over 15 minutes.
Others	• assign last-man-out to check the effectiveness of energy saving measures; • staff are encouraged to walk up or down one or two storeys rather than using the lift; • display posters to publicise messages on environmental protection; • collect plastics, metals, waste paper, glass bottles and rechargeable batteries by setting up recycling boxes at pantries/common areas; • ensure proper maintenance of our departmental vehicles and remind our drivers to switch off vehicle engines while waiting to avoid idling emission and achieve fuel saving; and • keep liaising with EMSD to explore feasible energy saving opportunities.

DEVB is one of the tenants of Central Government Offices (CGO) at Tamar, occupying office spaces from 15/F to 18/F and part of 6/F and 19/F of West Wing; and part of 17/F of East Wing. The adoption of the above energy saving measures had helped in the saving of electricity consumption of CGO. CGO was awarded the "Excellent" class under the Indoor Air Quality Certification Scheme.

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. We also use e-tender whenever applicable.

Staff Awareness

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. These would enhance their awareness on environmental protection and green management. For the years to come, we will continue to work closely with our staff with a view to fostering a green culture and ensuring that our offices operate in an environmentally responsible manner.

7. 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.

Development Bureau

Central Government Offices,
2 Tim Mei Avenue,
Tamar, Hong Kong

Fax No. : 2523 5327
E-mail Address : devbenq@devb.gov.hk
Website : http://www.devb.gov.hk/