

Buildings Department  
Environmental Report

2021





Table of Contents		Page
DIRECTOR'S MESSAGE		1
Chapter 1 SUSTAINABLE ORGANISATION		
1.1	Our Approach	2
1.2	Management Commitment	2
Chapter 2 SUSTAINABLE BUILT ENVIRONMENT		
2.1	Modernising Building Design Standards	3
2.2	Promoting Green and Sustainable Building Developments	5
2.3	Facilitating Conservation of Built Heritage	6
2.4	Reducing Construction and Demolition Wastes	7
2.5	Proper Use and Timely Maintenance of Existing Buildings	8
Chapter 3 PUBLIC EDUCATION AND HUMAN CAPITAL STRATEGY		
3.1	Educating and Engaging the Public on Sustainability	11
3.2	Training our Staff	14
Chapter 4 GREEN OFFICE		
4.1	Improving Air Quality	15
4.2	Moving towards a Paperless Office	17
4.3	Saving Resources	19
4.4	Procuring Green Products	20
Feedback		21

We are pleased to present the Environmental Report 2021 (this Report) of the Buildings Department (BD). This report showcases our vision, commitment, and achievements in promoting and supporting sustainable built environment in Hong Kong. In 2021, we continued to promote building safety; set and enforce safety, health and environmental standards for private buildings as well as improving the quality of building development to make the built environment safe and sustainable for our community.

The COVID-19 epidemic continued to rage in 2021. To reduce the spread of the novel coronavirus in the community, BD followed the special work arrangement for government employees while implemented targeted measures to tackle drainage defects including continuing our territory-wide inspection of external drainage systems for private buildings. Furthermore, BD continued to explore opportunities to adopt different information technologies to maintain and enhance our public services under the epidemic. For instance, we adopted a pragmatic and flexible approach for accepting the use of videotelephony to conduct site audit checks and qualified supervision for precast concrete units, modular integrated construction (MiC) modules and tempered glass fabricated in factories in the Mainland.

Enabling electronic submission is conducive to the adoption of “work from home” mode of operation under the epidemic. BD is developing an Electronic Submission Hub (ESH) for the submission and processing of plans and applications under the Buildings Ordinance (BO) (Cap. 123), as an alternative to the current paper-based system.



To implement a performance-based building control system and keep pace with the advancements in building technology, BD continues to review and refine the building standards and requirements. The new Building (Construction) Regulation and the consequential amendments to other subsidiary regulations under the BO, as well as the Building (Minor Works) (Amendment) Regulation 2021 (Amendment Regulation) came into operation in 2021.

For our existing buildings, BD is stepping up the clearance of drain-related orders against defective drainage pipes and expedient drainage connections causing hygiene and environmental pollution problem in view of the heightening concern about the condition of drainage pipes under the COVID-19 epidemic. We have also commissioned pilot projects for drainage inspection using advanced technologies and artificial intelligence.

I would like to thank our staff and external partners for their continued support in BD's sustainability journey. Looking forward, we will continue to explore new opportunities and technologies to bring forth a sustainable built environment for all.

**Ms YU Po-mei, Clarice, JP**  
Director of Buildings

## SUSTAINABLE ORGANISATION

### 1.1. Our Approach

**Our Vision:** To make the built environment safe and healthy for our community.

**Our Mission:** To set and enforce safety, health and environmental standards for private buildings.

**Our Culture:** To go the extra mile in serving our customers and the community in general

BD is committed to promoting building safety, developing and enforcing safety, health and environmental standards for private buildings, striving to improve the quality and sustainability of our built environment. We firmly uphold core responsibilities under the remit of the BO, as well as playing an active role in supporting relevant initiatives and policies of the Government.

### 1.2. Management Commitment

BD endeavours to cultivate a sustainable culture within and beyond the organisation through a robust sustainability management mechanism with an aim to support the Government's sustainability agenda. The Director of Buildings and the senior management members of BD, including a Deputy Director and six Assistant Directors, are responsible for decision-making on important policies including those relating to economic, social, environmental and sustainability aspects.

The approach of collaboration and harmonisation is well embedded in BD's management mechanism which drives our implementation of sustainability-related programmes. The senior management regularly reviews existing policies as well as social and environmental performance to identify potential impacts on sustainability-related matters, through maintaining active communication with different stakeholders.

We have joined the Hong Kong Green Building Council as an Associate Member since 2010 and have been taking part in its Committee work to promote environmental performance assessment.

## SUSTAINABLE BUILT ENVIRONMENT

It is our strategy to set out our statutory requirements as well as administrative guidelines to support the development of a sustainable built environment and to facilitate the adaptive re-use of heritage buildings with a view to providing a quality living and built environment for both the present and future generations of Hong Kong.

### 2.1 Modernising Building Design Standards

As an ongoing initiative of enhancing sustainable development, we continue to review and propose revisions of building standards when necessary to implement a performance-based building control system and enhance the standards on the design and construction of buildings and associated works under the BO.


Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>New Building (Construction) Regulation</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The new Building (Construction) Regulation and the amendments to other subsidiary regulations under the BO including the Building (Administration) (Amendment) Regulation 2020, the Building (Ventilating Systems) (Amendment) Regulation 2020 and the Building (Construction) Regulations (Repeal) Regulation were gazetted in early 2020 and came into operation on 1 February 2021.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Review of the Building (Planning) Regulations</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The review to convert the prescriptive requirements into performance based standards was ongoing.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Review of the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The second stage of legislative amendment arising from the review was targeted to be submitted to the Legislative Council in 2022.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Formulation of a Code of Practice on Seismic-resistant Design Standards for Buildings in Hong Kong (Seismic Code)</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ The formulation of the Seismic Code, which would provide technical guidance for the design and construction of seismic-resistant buildings, was underway. If necessary, legislative amendment would be proposed to support the implementation of the Code.</li> </ul>

Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <b><i>Review of the Building (Minor Works) Regulation</i></b></li> </ul> <p>To extend the coverage of the Minor Works Control System (MWCS) to facilitate the carrying out of minor works and bring greater convenience to the public.</p>	<ul style="list-style-type: none"> <li>◆ The Amendment Regulation which came into operation on 1 September 2021, prescribed the detailed descriptions of 11 types of minor amenity features (involving 21 prescribed building or building works items). Under this new Minor Amenity Feature Validation Scheme, such lower risk features, in existence before 1 September 2020, could be retained after safety inspection, strengthening (if required) and certification by a prescribed building professional or a prescribed registered contractor so as to meet the genuine needs of the building occupants.</li> </ul>
<ul style="list-style-type: none"> <li>● <b><i>Review of Building Energy Efficiency requirements</i></b></li> </ul> <p>To review the OTTV and RTTV in accordance with the “Energy Saving Plan for Hong Kong’s Built Environment 2015~2025+”.</p>	<ul style="list-style-type: none"> <li>◆ The OTTV standards were reviewed and tightened up in August 2019 and we would complete the next review on OTTV before 2025.</li> <li>◆ For RTTV, two reviews were planned to be completed by 2023 and 2030.</li> </ul>

## 2.2. Promoting Green and Sustainable Building Developments


Since 2001, BD has been working with the Planning Department and the Lands Department to offer incentives for developers to adopt green features in new building developments, with an aim to improving the environmental performance of buildings and promoting quality living environment.

Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>Promulgating sustainable practices</i></li> </ul> <p>To update current/issue new Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAPs) for promulgating building design guidelines to improve the standards of living environment.</p>	<ul style="list-style-type: none"> <li>◆ Enhanced design standards of aboveground drainage system were promulgated via a new PNAP APP-164 in December 2021.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Promoting sustainable building design</i></li> </ul> <p>To implement the gross floor area (GFA) concession policy under PNAP APP-151 and the Sustainable Building Design Guidelines (SBD Guidelines) to promote building separation, building setback and site coverage of greenery of buildings as promulgated in PNAP APP-152.</p>	<ul style="list-style-type: none"> <li>◆ Under the GFA concession policy, complying with the SBD Guidelines was one of the prerequisites for granting GFA concessions for green/amenity features and non-mandatory/non-essential plant rooms and services in building projects. A maximum concession is set at 10% of the total GFA of the development.</li> </ul>
<pre> graph LR     A[186 approved proposals in 2021] --&gt; B[106 approved proposals granted with GFA concessions]     A --&gt; C[80 approved proposals did not apply for GFA concessions]     B --&gt; D[100 proposals in compliance with SBD Guidelines]     B --&gt; E[6 proposals to which SBD Guidelines were not applicable]             </pre>	
<ul style="list-style-type: none"> <li>● <i>Participating in Building Environment Assessment</i></li> </ul> <p>(a) To support the adoption of Building Environmental Assessment Method (BEAM) Plus.</p>	<ul style="list-style-type: none"> <li>◆ There were 106 building proposals registered for the BEAM Plus certification in 2021, amounting to nearly 57% of the proposals approved in the year.</li> </ul>

Targets	Performance in 2021
<p>(b) To review the GFA concession mechanism and consider possible measures to tighten the prerequisites for application for GFA concession.</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>◆ Following the Policy Address in January 2017, we commissioned a consultancy study to review the GFA concession mechanism. While maintaining the 10% for GFA concession for new private development projects, the Consultant recommended that new projects would have to achieve a specific rating under the BEAM Plus in order to apply for GFA concession. If a project could only achieve a lower rating, it had to demonstrate compliance with one or more new specific standards which promote a quality built environment. We continued to communicate with stakeholders to prepare for implementing the new GFA concession mechanism.</p>

## 2.3. Facilitating Conservation of Built Heritage



Conservation of built heritage is of paramount importance to showcase the historical and cultural landscape of our city. With an aim to protecting and revitalising them, BD actively engages with various government departments and stakeholders in the community to revitalise and conserve heritage buildings.

Target	Performance in 2021
<p>● <i>Enhancing heritage conservation</i></p> <p>(a) To support historic buildings conservation and revitalisation without compromising building safety and health requirements.</p> <p>(b) To provide professional technical advisory and pre-submission enquiry services by our Heritage Unit.</p> <div style="text-align: center; margin-top: 20px;">  </div> <p style="text-align: center;">The Pok Fu Lam Farm</p>	<p>◆ The 2021 Edition of the "Practice Guidebook for Adaptive Re-use of and Alteration and Addition Works to Heritage Buildings 2012" (the Practice Guidebook) was issued to provide guidance on reusing historic buildings and project highlights.</p> <p>◆ Feedback on the Practice Guidebook was collected and considered by the Technical Committee on Building Safety and Health Requirements for Historic Buildings under the BO.</p>



## 2.4. Reducing Construction and Demolition Wastes

BD remains steadfast in collaborating with stakeholders to reduce construction and demolition wastes by reviewing and promoting environmentally friendly construction methods. We made continuous effort to improve current building designs and construction practices by encouraging more extensive application of precast concrete construction.

Target	Performance in 2021
<p data-bbox="188 589 774 660">● <i>Minimising construction and demolition wastes</i></p> <p data-bbox="188 707 774 779">To encourage wider adoption of MiC technology in Hong Kong.</p>  <p data-bbox="240 1191 722 1218">Yen Chow Street transitional housing project</p>  <p data-bbox="217 1688 748 1715">Sung Wong Toi Road transitional housing project</p>	<ul style="list-style-type: none"> <li data-bbox="802 707 1477 981">◆ The pre-acceptance mechanism for granting in-principle acceptance (IPA) to individual MiC systems or components and the GFA concession policy in allowing 6% of the MiC floor area to be exempted from GFA of new building developments had been in place since 2017 and 2019 respectively.</li> <li data-bbox="802 1028 1477 1339">◆ In view of the stepped-up cross-boundary control as one of the anti-epidemic measures against COVID-19, BD adopted a pragmatic and flexible approach to accept certain supervisory personnel to employ video telephony in conducting supervision for factory production of MiC modules instead of visiting the factory in the Mainland.</li> <li data-bbox="802 1386 1477 1619">◆ By 31 December 2021, BD had received 118 IPA applications, with 49 IPA granted involving 30 MiC manufacturers which had been included in BD's List of Accepted MiC Systems. 3 private MiC development projects had been completed.</li> </ul>

## 2.5. Proper Use and Timely Maintenance of Existing Buildings

Ensuring building safety and health is an important part of our services. We continue to promote the importance of environmental hygiene, reduce the risks brought about by unauthorised building works (UBWs), promote fire safety, proper maintenance of old buildings, drainage and slopes, as well as tackling problems relating to building neglect and dilapidation.

Targets	Performance in 2021
<ul style="list-style-type: none"> <li><b>Tackling UBWs and rectifying building dilapidation</b></li> </ul> <p>To continue the clearance of UBWs, including unauthorised signboards, structures on rooftops, podiums, lanes and yards and those in New Territories Exempted Houses (NTEHs), in target buildings by taking enforcement actions through large scale operations (LSOs); and to rectify identified building dilapidations, to improve building safety.</p>	<ul style="list-style-type: none"> <li>No. of removal orders issued in 2021: 10 588</li> <li>No. of UBWs removed and irregularities rectified: 27 917</li> <li>No. of repair/investigation orders issued: 8 680</li> <li>No. of buildings/premises repaired: 2 135</li> </ul>

### UBWs Clearance Operations in 2021

#### Unauthorised Signboards

- **2 503** unauthorised signboards removed/validated
- **1 810** abandoned/dangerous signboards removed/repared
- **43** signboards validated under the Signboard Validation Scheme

#### Unauthorised Structures on Rooftops


- **87** target domestic/composite buildings selected
- **3 793** removal orders and **18** repair/investigation orders issued
- **637** removal orders complied with

#### UBWs in NTEHs

- **883** removal orders and **5** repair/investigation orders issued
- **967** UBWs removed/irregularities rectified
- **10** buildings/premises repaired

<ul style="list-style-type: none"> <li><b>Inspection of subdivided flats (SDFs)</b></li> </ul> <p>To take enforcement actions against building irregularities associated with SDFs in domestic, composite and industrial buildings.</p>	<ul style="list-style-type: none"> <li>100 target buildings selected under LSOs</li> <li>1 727 SDFs inspected in response to reports and through LSOs</li> <li>315 SDFs rectified of irregularities</li> </ul>
---	--

Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>Tackling water seepage problems in buildings</i></li> </ul> <p>To continue the operation of the Joint Office with the Food and Environmental Hygiene Department in handling public reports on water seepage.</p>	<ul style="list-style-type: none"> <li>◆ The application of new testing methods including infrared thermography and microwave tomography in carrying out professional investigations for water seepage cases was extended to 12 pilot districts.</li> <li>◆ With the use of new testing methods in pilot districts, the success rate in identifying water source of cases was about 62%, which was higher than the success rate of around 41% for cases using the conventional methods.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Practical Guidelines for Building Maintenance and Repair</i></li> </ul> <p>To issue or update practice notes, circular letters and Code of Practice to provide practical guidelines on building designs to facilitate future repair and maintenance works.</p>	<ul style="list-style-type: none"> <li>◆ The new performance-based requirements for provisions of adequate means of access for maintenance and repair of external building elements of a building stipulated under the new Building (Construction) Regulation came into operation in February 2021. In this connection, the Code of Practice on Access for External Maintenance 2021 and PNAP APP-163 were promulgated to provide guidance on compliance with these statutory requirements.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Mandatory Building and Window Inspection Schemes</i></li> </ul> <p>To continue the implementation of the Mandatory Building Inspection Scheme (MBIS) and Mandatory Window Inspection Scheme (MWIS) and enhance support to the owners and stakeholders.</p>	<ul style="list-style-type: none"> <li>◆ 506 buildings were selected for both MBIS and MWIS, while 95 buildings were selected for MBIS only and 97 buildings were selected for MWIS only.</li> <li>◆ 10 briefing sessions were conducted for building owners, owners' corporations and the industry.</li> <li>◆ 12 briefing sessions were conducted for the "Central Platform on Building Management" organised by the Home Affairs Department.</li> </ul>

Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>Building fire safety</i></li> </ul> <p>To improve the existing fire safety measures in prescribed commercial premises, as well as pre-1987 commercial buildings, composite buildings and industrial buildings.</p>	<ul style="list-style-type: none"> <li>◆ BD carried out inspections and took necessary enforcement actions in accordance with the Fire Safety (Commercial Premises) Ordinance, Fire Safety (Buildings) Ordinance and Fire Safety (Industrial Buildings) Ordinance.</li> <li>◆ In 2021, BD inspected 530 premises and buildings, and issued 5 373 fire safety directions or fire safety improvement directions.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Special scheme to inspect external drainage system</i></li> </ul> <p>To inspect external drainage systems of about 20 000 private residential and composite buildings exceeding three storeys and to take enforcement actions to require repair of the defective drainage systems in view of the heightening concern about the condition of drainage pipes under the COVID-19 epidemic.</p>	<ul style="list-style-type: none"> <li>◆ About 15 500 target buildings had been inspected by the end of 2021</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Stepping up clearance of outstanding drainage repair orders covering misconnection of drain pipes causing hygiene and environmental pollution problems</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ Dedicated teams were set up for the operation.</li> <li>◆ All advisory letters had been dealt with by the end of 2021.</li> <li>◆ 416 orders complied with in 2021</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Commission of pilot projects for drainage inspection using advanced technologies</i></li> </ul> <p>To carry out site inspections for external drainage systems by cable robot and drone with the application of artificial intelligence by consultant.</p>	<ul style="list-style-type: none"> <li>◆ Inspections for five buildings were completed in November 2021.</li> </ul> 



## PUBLIC EDUCATION AND HUMAN CAPITAL STRATEGY


It is our belief that the success of moving towards sustainability depends upon the firm commitment and participation across the community.

### 3.1. Educating and Engaging the Public on Sustainability

Engaging stakeholders and the public is an indispensable part of enhancing awareness of building safety and fostering a building care culture. To this end, we are committed to raising public awareness by launching different community educational activities.

Targets	Performance in 2021
<p>(a) To promote and publicise initiatives of the department to the public and educate the general public and the stakeholders in the building/construction fields on the importance of building safety and timely maintenance of buildings.</p>	<p><b>Building Safety Week</b></p> <ul style="list-style-type: none"> <li>◆ The Building Safety Week 2021 was successfully held from 19 to 22 October that comprised a series of public webinars to help members of the public better understand building safety messages and foster a building care culture. The Building Safety Symposium themed “Shaping a Smart and Livable Built Environment” provided a good opportunity for the industry to exchange ideas and their views on building safety issues.</li> </ul> <div data-bbox="675 1167 1469 1541" data-label="Image"> </div> <p>Building Safety Symposium</p> <p>No. of guests for Building Safety Symposium: 560 No. of participants for webinars: 1 606</p> <p><b>Building Safety Advanced Certificate Course</b></p> <ul style="list-style-type: none"> <li>◆ The two-day Building Safety Advanced Certificate Course which was tailor-made for those who had completed the Building Safety Certificate Course, was held on 11 and 18 December. Participants had an in-depth exploration of building safety on the related topics to reinforce their building care awareness.</li> </ul> <p>No. of attendees: 180 Overall satisfaction rate: 99.4%</p>

Targets	Performance in 2021
	<p><b>Building Safety Talks</b></p> <ul style="list-style-type: none"> <li>◆ Organised a total of 9 sessions of Building Safety Webinar and 18 Building Safety Talks for the general public, educational sector, building owners and the industry throughout the year.</li> </ul>
	<p><b>Building Safety Pioneer Programme</b></p> <ul style="list-style-type: none"> <li>◆ Promoted building safety to 159 secondary school students through online activities.</li> </ul>
	<p><b>Music Video</b></p> <ul style="list-style-type: none"> <li>◆ Music video “Hey Hey Hey Check Your Building (Buildings’ Thingies Ain’t No Easy-Peasy Remix)” was published on 18 August 2021 to promote importance of regular maintenance of buildings.</li> </ul>
	<p><b>Radio Drama Competition</b></p> <ul style="list-style-type: none"> <li>◆ The Secondary School Radio Drama Competition 2021 was one of the major public education and publicity events organised by BD to promote building safety among secondary school students. Overwhelming responses from 37 schools were received. The media interviewed four of the winning teams and their entries were broadcasted on the Metro Radio in September 2021.</li> </ul>
	<p><b>Banners and posters</b></p> <ul style="list-style-type: none"> <li>◆ To enhance public awareness of the implementation of the Minor Amenity Feature Validation Scheme which enabled the public to retain certain unauthorised minor amenity features for use once proven safe, we displayed banners of the theme on various digital platforms in September and October 2021.</li> <li>◆ We continued to promote BD’s enforcement actions against UBWs in NTEHs, regular building inspection and window safety and voluntary inspection of windows through minibus banners.</li> </ul>
	<p><b>Periodic Publications</b></p> <ul style="list-style-type: none"> <li>◆ Building Safety Quarterly Newsletters covering topics on building safety, with reminders for practitioners and updates of building safety activities were published.</li> <li>◆ Monthly Digest provided statistical data on BD’s building control output under the BO.</li> </ul>

Targets	Performance in 2021
<p>(b) To promote and publicise building safety information to the public and younger people through electronic means to reduce the printing of pamphlets and leaflets.</p>	<p><b>Broadcasts</b></p> <ul style="list-style-type: none"> <li>◆ A new TV Announcement in the Public Interest (API) to remind the public of the importance of proper maintenance and repair of drainage pipes in buildings was launched in February. The API was played at Mass Transit Railway stations and train compartments, bus stops and online media platforms. A radio API promoting the implementation of the Minor Amenity Feature Validation Scheme was launched in September and broadcasted on local radio channels.</li> </ul> <p><b>E-Learning Centre</b></p> <ul style="list-style-type: none"> <li>◆ Our digital learning platform, the E-Learning Centre, continued to disseminate useful information to enhance building safety awareness among property owners, owners' corporations, representatives of property management companies and the public. In 2021, a total of 37 videos were uploaded to the E-Learning Centre.</li> </ul> <p><b>Social Media</b></p> <ul style="list-style-type: none"> <li>◆ BD maintained a Facebook page, an Instagram account and a YouTube channel, in order to share the latest event updates and safety tips in a more efficient way.</li> <li>◆ Annual Statistics:           <ul style="list-style-type: none"> <li>• No. of Facebook followers: 16 203</li> <li>• No. of Instagram followers: 2 696</li> <li>• No. of YouTube subscribers: 1 993</li> <li>• No. of posts on Facebook: 130</li> <li>• No. of posts on Instagram: 114</li> <li>• No. of videos on YouTube: 26</li> <li>• No. of likes on Facebook: 12 497</li> <li>• No. of likes on Instagram: 3 772</li> <li>• No. of likes on YouTube: 419</li> <li>• No. of views on YouTube: 2 198 998</li> </ul> </li> <li>◆ To promote the importance of regular drainage inspection, a video featuring Surveyor Vincent Ho, JP and celebrity Ms Jessica Hsuan was published in BD's social media.</li> </ul>
	

## 3.2. Training our Staff

Our training and development programmes place great emphasis on equipping our staff to understand and actively play their roles in promoting and facilitating sustainable building developments.

Target	Performance in 2021
To provide trainings related to green building and sustainability to staff.	<ul style="list-style-type: none"><li>◆ 75 seminars and conferences and 11 site visits on building sustainability were arranged for 1 231 staff.</li><li>◆ 45 staff attended BEAM Pro Training to support green building developments.</li><li>◆ 29 Building Information Modelling (BIM) lessons were arranged for staff to get prepared for wider use of BIM in building industry. 370 staff attended the BIM lessons.</li></ul>



## GREEN OFFICE

It is our continuous target to ensure effective implementation of in-house green measures in all our offices, and to increase the awareness of our staff on green office management. We take a proactive approach in resource conservation and energy saving to achieve sustainable development. In recognition of our excellence in environmental management, we clinched a Certificate of Merit under the Public and Community Services Sector in the Hong Kong Awards for Environmental Excellence.

### 4.1 Improving Air Quality

In November 2006, the Government signed the Clean Air Charter launched by the Hong Kong General Chamber of Commerce and the Hong Kong Business Coalition on the Environment, to join forces with the business sector and the community to foster the improvement of air quality in Hong Kong.

Commitments	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>To actively fulfil our commitment under the “Clean Air Charter”</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ BD had joined the Indoor Air Quality (IAQ) Certification Scheme since 2011.</li> <li>◆ Our Headquarters at West Kowloon Government Offices (WKGO) was certified with “Excellent” IAQ Class.</li> <li>◆ Our outstation offices in Taikoo Shing and Kwun Tong were certified with “Good” IAQ Class.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>To adopt energy-efficient measures in our operations</i></li> </ul>	<p><b>Reducing Carbon Emissions</b></p> <ul style="list-style-type: none"> <li>◆ The source of energy and fuel consumption related to our operation included the use of electricity and vehicle fleet which generated direct and indirect greenhouse gas.</li> <li>◆ The electricity consumption of WKGO and BD outstation offices including storerooms are 3 703 692 kWh and 1 139 767 kWh respectively.</li> <li>◆ We had been adopting a multi-faceted approach to minimise fuel consumption by encouraging online communication, planning business trips, and replacing traditional vehicles with electric vehicles (EVs). BD operated a fleet of 39 vehicles, out of which 9 were EVs, and 1 was hybrid electric car.</li> </ul>

Commitments	Performance in 2021
	<p><b>Increasing Energy Efficiency</b></p> <ul style="list-style-type: none"> <li>◆ Maintained air-conditioning at 25.5°C</li> <li>◆ Adopted multi-zone lighting control</li> <li>◆ Chose electrical devices and equipment with higher rating energy saving labels</li> <li>◆ Maintained installation of motion sensors if applicable</li> </ul> <p><b>Minimising Energy Wastage and Loss</b></p> <ul style="list-style-type: none"> <li>◆ Set time control and stand-by-mode for appliances</li> <li>◆ Appointed 61 Energy Wardens to arrange for the last-man-out to switch off lighting and devices at the end of the day and conduct walk-through quarterly</li> </ul> <p><b>Building Awareness</b></p> <ul style="list-style-type: none"> <li>◆ Displayed “Energy Saving” stickers to remind staff to turn off unnecessary appliances when not in use</li> <li>◆ Encouraged using staircases instead of elevators for inter-floor traffic within offices</li> </ul>
<ul style="list-style-type: none"> <li>● <i>To promote environmentally friendly practices in office refurbishment or relocation work</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ In 2021, we relocated our Fire Safety Section and Kowloon Section to Pioneer Centre and AIA Kowloon Tower respectively. Open office design was adopted as far as practicable to reduce the use of materials, maximise the use of natural light and enhance ventilation flow.</li> <li>◆ Energy retrofits such as using T5 fluorescent tubes were implemented.</li> <li>◆ To create a green and clean office environment, various measures were implemented upon office relocation, such as placing equipment which would cause noise disturbance and release airborne emissions in enclosed areas, and carried out full-scale cleaning to maintain good air ventilation.</li> </ul>

## 4.2 Moving towards a Paperless Office

We are taking advantage of the information technology to move towards a paperless office by introducing computerised management systems and encouraging communication within the workplace and with our stakeholders and public via electronic means.

Targets	Performance in 2021
<p><b><u>On public front</u></b></p> <ul style="list-style-type: none"> <li><i>To disseminate information to the public via the BD’s website and other electronic means</i></li> </ul> 	<ul style="list-style-type: none"> <li>◆ The BD’s website continued to provide information on the functions and services of the Department.</li> <li>◆ Legal/Validated Signboards Database was established in Government’s GeoInfo Map for identification of legal or validated signboards.</li> <li>◆ We launched a new Chatbot - “Ah Build” to answer general enquiries from the public about the MBIS and MWIS.</li> <li>◆ We continued to send notifications to all registered professionals and contractors via email and/or Short Message Service.</li> </ul>
<ul style="list-style-type: none"> <li><i>To develop and launch mobile applications for the general public to have a quick and easy communication platform to access information</i></li> </ul> 	<ul style="list-style-type: none"> <li>◆ With the use of two mobile applications, “Quick Guide for Minor Works” and “Quick Guide for MBIS/MWIS”, which provided a quick and easy means for the public to view useful information, users could carry out minor works under MWCS, inspection and repair works under MBIS and MWIS easily and effectively.</li> <li>◆ A digital “market-place”, called Mobile Digital Platform, was being developed to connect building owners, Qualified Persons and BD for implementation of MWIS. We aimed to launch the new application in the 3<sup>rd</sup> quarter of 2022.</li> </ul>
<ul style="list-style-type: none"> <li><i>To simplify the viewing and copying of building records through the implementation of Buildings Records Access and Viewing On-line (BRAVO) system over the Internet</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ In 2021, we handled 91 770 applications for viewing electronic records (include minor works records), out of which 86 623 were processed by the BRAVO system over the Internet.</li> </ul>

Targets	Performance in 2021
<ul style="list-style-type: none"> <li>● <i>To accept submission of documents in electronic format</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ In 2021, around 90 000 forms were processed through the Electronic Form Submission System.</li> <li>◆ An ESH was being developed for receiving and processing of electronic plans and documents as well as other applications under the BO. Implementation of the ESH would bring many environmental benefits including saving paper, and reducing the need for printing and transporting paper documents.</li> </ul>
<p><u><i>In our work place</i></u></p> <ul style="list-style-type: none"> <li>● <i>To disseminate information electronically and to introduce more green measures</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ We utilised the eDKMS, a central repository for document and knowledge management facilitating information sharing and collaboration within and across different divisions or sections in BD, in an attempt to further reduce paper consumption.</li> <li>◆ Mobile devices with the add-on feature “Pulse Secure” app were made available for staff to access internal manuals and electronic forms and process documents for site inspection and meetings when necessary.</li> </ul>
<ul style="list-style-type: none"> <li>● <i>Green Management of Data Centre and Green IT Measures</i></li> </ul>	<ul style="list-style-type: none"> <li>◆ Both cloud computing and server virtualisation technology were used to optimise the number of physical servers required thereby cutting down electricity power consumption.</li> <li>◆ All new printers were equipped with EcoPrint or Energy Saving Mode with Duplex Printing feature.</li> <li>◆ All servers, printers and desktop personal computers were Energy Star and Restriction of Hazardous Substances Compliant.</li> <li>◆ Network backup had been used to gradually replace manual backup thereby reducing transportation and storage of tapes.</li> </ul>



## 4.3 Saving Resources

The best approach to manage waste is “reduction” at source. We adhere to the principles of “Reduction, Reuse and Recycling” in the Department to minimise waste produced from our office operation. BD Administration Circular No. 4/2018 on “Green Practices and Waste Avoidance” has reminded all staff to set a green example by adopting green practices and waste avoidance measures and reducing the consumption of energy and paper.

Targets	Performance in 2021
<b>Reduction</b>	<ul style="list-style-type: none"> <li>◆ Our total paper consumption in 2021 was 27 806 reams, which was 8.24% higher than that in 2020, mainly due to the launch of some new operations and more publicity activities.</li> <li>◆ Recycled paper in lieu of virgin paper had continuously been used in the Department. In 2021, 41.82% of the total amount of paper consumed was recycled paper. The proportion had remained unchanged when compared to the year 2020. A total of 127 674 nos. of envelopes were consumed in 2021 which was 68.35% fewer than that consumed in 2020.</li> <li>◆ We would continue our efforts to minimise the use of paper by:               <ul style="list-style-type: none"> <li>• Using emails instead of paper memos and faxes for internal and external communications.</li> <li>• Minimising the production of hardcopies of documents.</li> <li>• Sending e-cards.</li> </ul> </li> <li>◆ "No bottled water" policy was adopted at our Headquarters to avoid use of unnecessary plastic bottles.</li> </ul>
<b>Reuse</b>	<ul style="list-style-type: none"> <li>◆ We promoted the reuse of resources by:               <ul style="list-style-type: none"> <li>• Reusing old furniture during office refurbishment or renovation.</li> <li>• Encouraging our staff to use the blank side of used paper for drafting, filing and printing.</li> <li>• Reusing envelopes for internal circulation.</li> <li>• Using ball pens with refills.</li> <li>• Placing used paper with a blank side near high paper usage equipment e.g. photocopier, to facilitate reuse.</li> <li>• Encouraging staff to use their own cups instead of paper cups.</li> </ul> </li> </ul>
<b>Recycling</b>	<ul style="list-style-type: none"> <li>◆ We collected recyclable waste materials by:               <ul style="list-style-type: none"> <li>• Placing collection bags near high paper usage equipment for recycling of waste paper.</li> </ul> </li> <li>◆ With the support from our staff, in 2021, we collected a total of 55 039 kg waste paper for recycling which were almost an increase of 274% when compared to the figure in 2020.</li> </ul>

## 4.4 Procuring Green Products

We purchased green products to show our responsibility to save the Earth and support for the recycling industry by sourcing applicable green products for office use making reference to the green specifications published by the Environmental Protection Department. Following are some examples of the green products we procured.



Pencils made of recycled materials



T5 Fluorescent tube



Recycled paper



Rechargeable batteries

## Feedback

Thank you for reading the Buildings Department Environmental Report 2021. Your views and suggestions are most welcome. It will help sustain our policies and support our continuous improvement. Please take a few minutes to give us your views by completing the following feedback form.

### 1. Which of the following best describes you?

- Government Departments or Agencies       Building Professionals       NGO  
 Legislators and Local District Councillors       General Public       Media  
 Staff of Buildings Department       Academic Sector       Student

### 2. Please rate our environmental report and performance.

Buildings Department Environmental Report 2021

- Fair       Good       Very Good       Excellent

Buildings Department Environmental Performance

- Fair       Good       Very Good       Excellent

### 3. Which aspect of the report did you find most useful?

- Economic     Environmental     Social     Governance     Others (please specify:\_\_\_\_)

### 4. Which aspect of the Buildings Department would you like to have more information?

- Economic     Environmental     Social     Governance     Others (please specify:\_\_\_\_)

Please return the completed feedback form to the Buildings Department by:

Email: [enquiry@bd.gov.hk](mailto:enquiry@bd.gov.hk)

Hotline: 2626 1616 (Handled by “1823”)

Fax: 2537 4992

Post: Buildings Department Headquarters, North Tower, West Kowloon  
Government Offices, 11 Hoi Ting Road, Yau Ma Tei, Kowloon

THANK YOU FOR YOUR VALUABLE FEEDBACK!