



BUILDINGS DEPARTMENT ENVIRONMENTAL REPORT 2014



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FOREWORD

By controlling heat transfer through the building envelope and encouraging the use of natural ventilation, the energy performance of our residential buildings can be enhanced.



I am pleased to present our sixteenth Environmental Report covering our environmental performance in 2014.

In 2014, we continued to address sustainability by promoting the construction of green and sustainable new buildings, encouraging timely inspection and maintenance of existing buildings, as well as educating the general public their responsibilities and the requirements.

In view that a residential building is one of the major building uses in Hong Kong, enhancing the energy performance of residential buildings would help us achieve a more environmentally friendly and sustainable built environment. The “Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings” was published in September 2014 to provide technical guidance to assist practitioners to design and construct residential buildings. By controlling heat transfer through the building envelope and encouraging the use of natural ventilation, the energy performance of our residential buildings can be enhanced.

Regarding our existing buildings, we continued our efforts to implement the Mandatory Building and Window Inspection Schemes. Through regular inspections and timely maintenance, our existing buildings could be made more livable and our environment more sustainable.

Sustaining our public education and publicity efforts on the importance of building safety and timely maintenance for pursuing the ultimate goal of a sustainable and quality built environment, we launched the Building Safety Pioneer Programme targeting secondary school students. We also hosted various exhibitions, carnivals, roadshows and seminars to help instill a culture of building care to the general public particularly our younger generation.

I am pleased to share with you that in recognition of our efforts to promote and facilitate the construction and maintenance of quality and sustainable buildings and the implementation of various environmental friendly office practices, the Buildings Department was awarded the Certificate of Merit for Public Organizations and Utilities of the Hong Kong Awards for Environmental Excellence 2014 by the Environmental Campaign Committee. We will continue to work with building owners and all stakeholders concerned to create quality homes and a greener living environment for all.

HUI Siu-wai, JP
Director of Buildings

BUILDINGS DEPARTMENT AND THE ENVIRONMENT

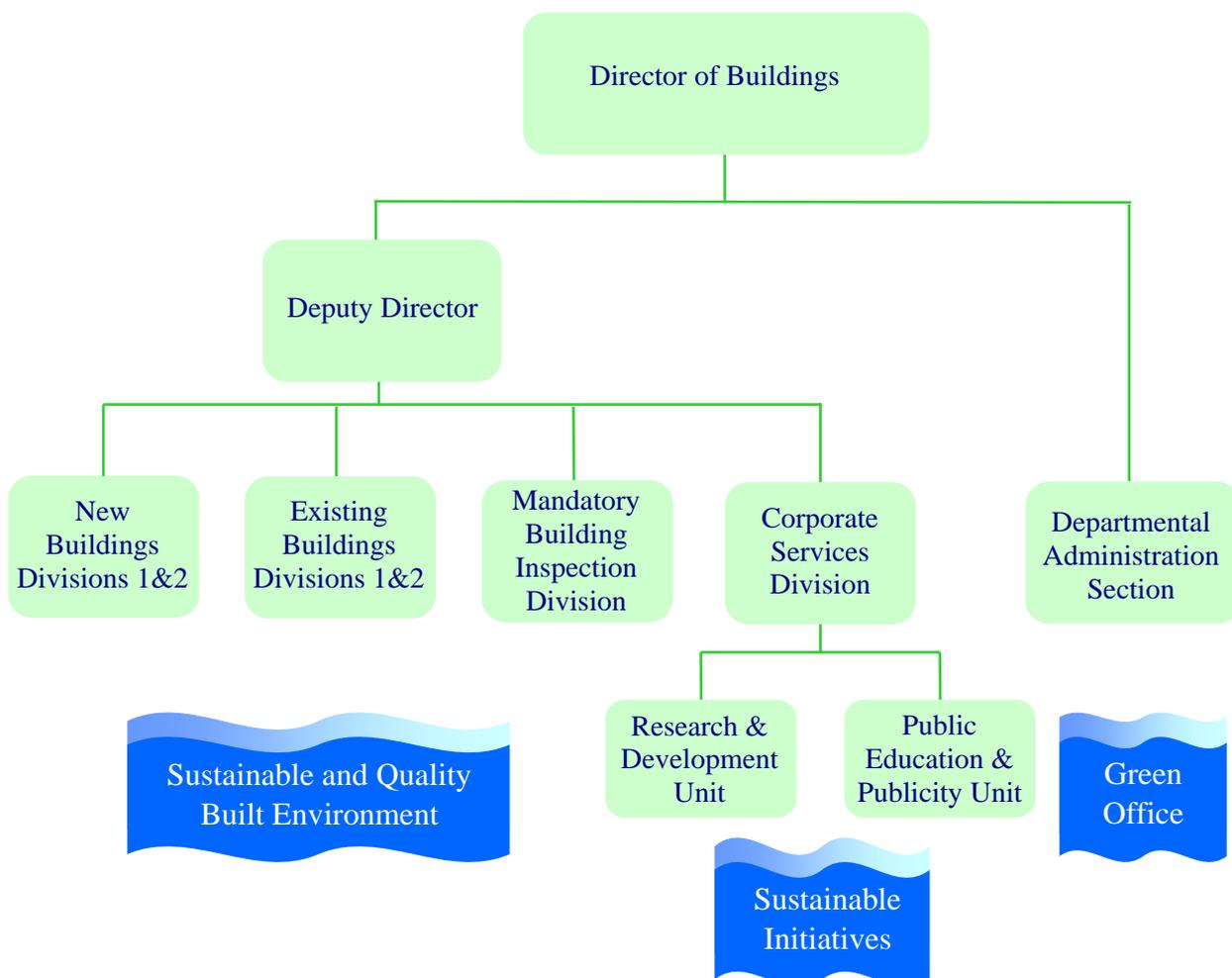
Our Vision: To make the built environment safe and healthy for our community.

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

Our Culture: To go the extra mile in serving our customers and the community as a harmonising regulator.

Under the ambit of the Buildings Ordinance (BO) and its subsidiary legislation, we are devoted to providing services to the public in facilitating and promoting the construction and maintenance of quality buildings in the private sector. We also take a proactive role in supporting the Government's objective of creating a better and sustainable living environment in Hong Kong.

1.1. Organisation Chart



1.2. Management Commitment

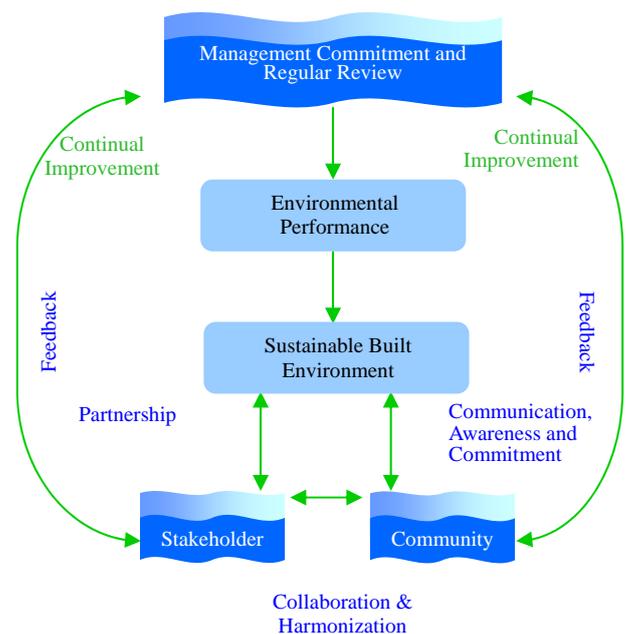
Our commitment and approach to environmental management stemmed from our determination towards a sustainable environment.

We continue to review our policies and strategies to identify any potential impacts to our environment and seek continual improvement in our environmental performance.

Through administering and enforcing the BO, we aim to ensure building safety; we set and enforce building standards, and aim to improve the quality of private building developments. We are committed to:

- (a) taking an active role in partnership with the building industry and other government departments or agencies to promote a sustainable built environment in Hong Kong;
- (b) ensuring that all services and operations are developed and conducted in an environmentally responsible manner, meeting the commitments of the Clean Air Charter;
- (c) implementing good practices of green management in our workplace; and
- (d) raising the awareness of both the public and our staff of the importance of a sustainable environment in our community.

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



The most important ingredients of sustainable developments are all levels of commitment and the continual development in harmony.

PROMOTING A 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 our review of the BO and allied regulations.

Targets	Performance in 2014
<ul style="list-style-type: none">Review of the Building (Construction) Regulations and Building (Planning) Regulations <p>To review the Building (Planning) Regulations (B(P)R) and the Building (Construction) Regulations (B(C)R) by including performance-based requirements in addition to the prescriptive standards, where appropriate.</p>	<ul style="list-style-type: none">◆ The proposed amendments to B(C)R were being further refined to take into account the views from stakeholders. We planned to introduce the proposed legislative amendments to the B(C)R to the Legislative Council (LegCo) in 2015/2016.◆ The consultancy study commissioned in November 2013 to comprehensively review the B(P)R was in progress. The Consultant will make recommendations on the planning and design standards of buildings stipulated therein so as to keep abreast with the advancement of technology and energy efficiency in building design. The study would also seek to update the B(P)R generally to facilitate modern and innovative building design with a view to developing a performance-based regulatory system.

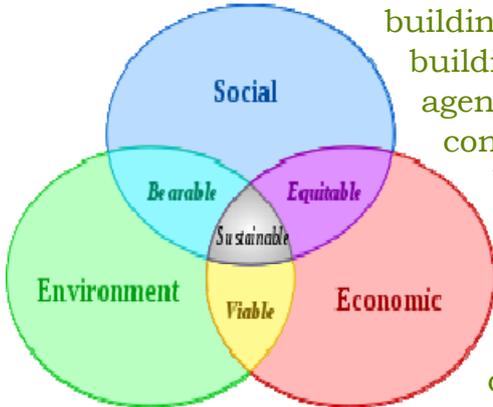
Targets	Performance in 2014
<ul style="list-style-type: none"> ● Review of the sanitary fitments, plumbing and drainage provisions for buildings <p>To amend the prescriptive requirements in the current plumbing and drainage standards for private buildings by adopting performance-based requirements taking account of the need for environmental protection and material conservation, as well as advancement in environmental science and technologies.</p>	<ul style="list-style-type: none"> ◆ The proposed amendments to the drainage regulations and the draft Code of Practice have taken into account of the views from stakeholders. To expedite the legislative amendment process, the amendments to the drainage regulations will proceed in two stages. The Stage 1 amendments will update the standards for provision of sanitary fitments in buildings, whilst other amendments will be dealt with at Stage 2. The Stage 1 legislative amendments will be introduced to the LegCo in 2015/16.
<ul style="list-style-type: none"> ● New design and construction requirements for energy efficiency of residential buildings <p>To implement a set of design and construction guidelines for improving energy efficiency in residential buildings based on the recommendations of a consultancy study.</p> 	<ul style="list-style-type: none"> ◆ The “Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings” (EE Guidelines) and Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineer (PNAP) APP-156 were promulgated in September 2014 which are applicable to new proposals submitted after 30 March 2015 involving Gross Floor Area (GFA) concessions for green/ amenity features and non-mandatory/ non-essential plant rooms and services.

Targets	Performance in 2014
<ul style="list-style-type: none"><li>● Review of the Building (Energy Efficiency) Regulation <p>To keep under regular review of the use of the Code of Practice for Overall Thermal Transfer Value (OTTV Code) in Building (Energy Efficiency) Regulation on the energy efficiency of buildings as well as the EE Guidelines.</p> 	<ul style="list-style-type: none"><li>◆ The review will be carried out by a Technical Committee which will collect views and consider comments or feedback arising from the use of the OTTV Code, EE Guidelines, relevant advancement in design, technologies and construction methods, and latest relevant overseas regulatory control and standards. The preparatory work for setting up the Technical Committee was in progress.

Targets	Performance in 2014
<ul style="list-style-type: none"><li>● Consultancy study on introducing seismic-resistant building design standards in Hong Kong <p>To engage a consultant to formulate a Code of Practice on Seismic-resistant Design Standards for Buildings in Hong Kong.</p>	<ul style="list-style-type: none"><li>◆ Following the completion of a consultation exercise on whether statutory seismic-resistant building design standards should be introduced in Hong Kong, we embarked on an exercise to formulate local seismic-resistant design standards for new private buildings.<li>◆ We commissioned a consultancy study to formulate a Code of Practice on Seismic-resistant Design Standards for Buildings in Hong Kong with a view to providing technical guidelines for compliance with the requirements. The consultancy would commence in February 2015 and would last for three years. The extant BO and its subsidiary Regulations would be reviewed and corresponding legislative amendments would be proposed, if necessary, to introduce the new design standards.

2.2. Promoting Green and Sustainable Building Developments

Since 2001, we have introduced, jointly with the Planning Department and the Lands Department, incentives for developers to provide green features in new building developments for promoting green and innovative buildings and quality living space. To respond to the global agenda on carbon emission reductions and address local concerns about the negative impact of excessive building bulk on the environment and premised on the recommendations of the Council for Sustainable Development based on its public engagement exercise, we have implemented a new policy to foster a quality and sustainable built environment through building design since April 2011.

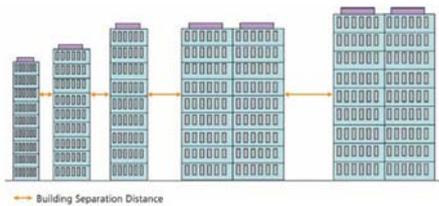


Targets	Performance in 2014
<ul style="list-style-type: none"> ● Promulgating sustainable practices <p>To update PNAPs for promulgating building design guidelines in order to improve the standards of living space.</p>  	<ul style="list-style-type: none"> ◆ For implementation of EE Guidelines issued in September 2014, PNAP APP-151 was revised at the same time to require compliance with EE Guidelines as one of the conditions for granting GFA concessions for green / amenity features and non-mandatory / non-essential plant rooms and services in new building developments. ◆ PNAP APP-19 was revised in September 2014 to clarify the projecting window requirements and to align with the new PNAP APP-156 on EE Guidelines.

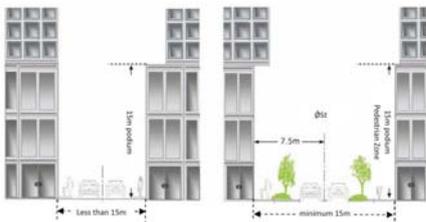
Targets	Performance in 2014
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- Promoting sustainable building design**

To monitor the implementation of the new GFA concessions 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.



Building Separation

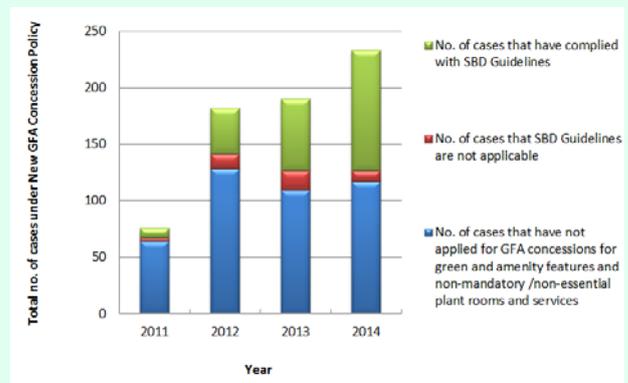


Building Set Back



Site Coverage of Greenery

- Under the new GFA concessions policy setting a cap of 10% of the total GFA of the development, compliance with SBD Guidelines is one of the prerequisites for granting GFA concessions for green / amenity features and non-mandatory / non-essential plant rooms and services in building projects.
- Since the implementation of the new GFA concessions policy on 1 April 2011 and up to 31 December 2014, we have approved **683** new development proposals and **264** of them were granted with GFA concessions.
- Out of these **264** approved proposals, **220** proposals were in compliance with the SBD Guidelines whereas the SBD Guidelines were not applicable to **44** proposals. The other **419** approved proposals did not apply for GFA concessions for green / amenity features and non-mandatory /non-essential plant rooms and services.
- The statistics from 2011 to 2014 are as follows:



- With experience gained in the implementation of the SBD Guidelines for more than three years, we proposed refinements to clarify the interpretation of the SBD Guidelines and to

- **Wider adoption of green features**

- (a) To monitor the implementation of **Joint Practice Notes 1 and 2 (JPNs 1 and 2)** aiming to promote green and innovative buildings.
- (b) To promote better understanding on environmental performance of buildings through **BEAM Plus** Assessment conferred by the HKGBC.



provide more design flexibility in compliance with the SBD Guidelines. The proposal was circulated to representatives of professional institutions, stakeholder organisations and relevant government departments in October 2014 for comments.

- ◆ Refresher seminars and experience sharing sessions with the professionals and stakeholders were held in 2014.
- ◆ To promote the construction of green and sustainable buildings, certification by BEAM Plus is one of the prerequisites for granting GFA concessions for certain green / amenity features in building projects.
- ◆ There were **116** building projects registered for the BEAM Plus certification in 2014 amounting to an increase of 45% compared with 2013. It demonstrated a wider adoption of BEAM Plus certification and green building design in private developments.

2.3. Facilitating Conservation of the Built Heritage



Stone House

We take a proactive and pragmatic approach to support the Government's initiative to revitalize public historic buildings through a partnership scheme and facilitate the adaptive re-use of private historic buildings.

Target	Performance in 2014
<p>● Enhancing heritage conservation</p> <p>To offer technical advice for facilitating the adaptive re-use of and alteration and addition works to historic buildings for compliance with the building safety and health requirements under the BO.</p>  <p>Jao Tsung-I Academy (Former Lai Chi Kok Hospital)</p>  <p>Former Fanling Magistracy</p>	<ul style="list-style-type: none"> ◆ The dedicated Heritage Units continued to work in partnership with the stakeholders to offer technical advice to facilitate approval of building plan submissions involving adaptive re-use of and alteration and addition works to historic buildings. ◆ The Technical Committee on Building Safety and Health Requirements for Historic Buildings held regular meetings to collect comments and feedback on the use of the Practice Guidebook on Compliance with Building Safety and Health Requirements under the Buildings Ordinance for Adaptive Re-use of and Alteration and Addition Works to Heritage Buildings for future refinement and to share experience on successful revitalisation projects.

2.4. Reducing Construction and Demolition Wastes

Landfills take up a lot of valuable space in Hong Kong. The existing landfills will be exhausted by 2020. We have continued our efforts to review the current building and construction practices, and to encourage stakeholders to minimise construction and demolition wastes.

Target	Performance in 2014
<ul style="list-style-type: none"> Minimising construction and demolition wastes <p>We will continue to collaborate with the stakeholders on the review of the use of environmentally friendly construction methods with a view to minimising construction and demolition wastes.</p>	<ul style="list-style-type: none"> The use of precast concrete construction could reduce construction wastes generated on construction site. We processed a total of 37 plan submissions adopting precast concrete construction in 2014. We continued to operate the validation scheme for unauthorised household minor works to reduce the need for removal of such unauthorised structures. Unauthorised signboards had also been included in a similar validation scheme as further discussed below.

2.5. Improving Environmental Hygiene



In response to the public concerns on the possible dire consequences of building neglect and the perennial environmental hygiene problems, the BD has continued to participate in improving environmental conditions of some identified black spots through large-scale operations.

Targets	Performance in 2014
<ul style="list-style-type: none"> Rectifying drainage defects <p>To work in collaboration with the Home Affairs Department and other relevant government departments to improve environmental conditions of identified blackspots under the Hygiene Blackspots Clearance programme.</p>	<ul style="list-style-type: none"> The Hygiene Blackspots Clearance programme (Phase IV) under the Team Clean Operation continued in 2014. Under this programme, a total of 235 buildings were involved and some 452 unauthorised building works (UBW) were removed.

Targets	Performance in 2014
<ul style="list-style-type: none"> ● Handling water seepage problems <p>To continue the operation of the Joint Office (JO) with the Food and Environmental Hygiene Department (FEHD) in handling public reports about water seepage problems.</p>	<ul style="list-style-type: none"> ◆ The operation of the JO was made permanent in April 2014 and conversion of the existing non-civil service positions to civil service posts was being implemented in phases. A consultancy study to explore the latest technologies for the investigation of water seepage in buildings was also commissioned in Oct 2014.
<ul style="list-style-type: none"> ● Promulgating guidelines to facilitate operation and maintenance <p>To issue / update practice notes and circular letters to promulgate operation and maintenance guidelines in order to improve the environmental hygiene and in turn the standards living.</p>	<ul style="list-style-type: none"> ◆ Two circular letters were issued in April 2014 to remind the practitioners (i) to review, strengthen where appropriate, and take anti-mosquito measures for the construction site and (ii) to take preventive measures proactively to ensure that no adverse drainage impacts would be caused by the construction sites on the public stormwater drainage systems. ◆ PNAP APP-93 was revised in May 2014 to provide guidelines on the design and construction requirements of architectural features for enclosing external drainage pipes so as to ensure effective arrangement for inspection and maintenance of the drainage pipes. ◆ Updating relevant PNAP to promote suitable provisions in building design to facilitate external inspection and maintenance of buildings was being considered.

2.6. Promoting Timely Maintenance and Building Repair

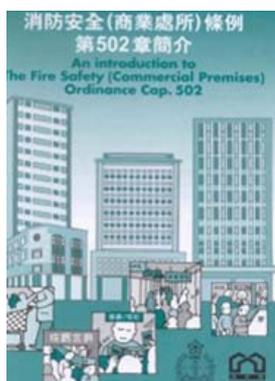
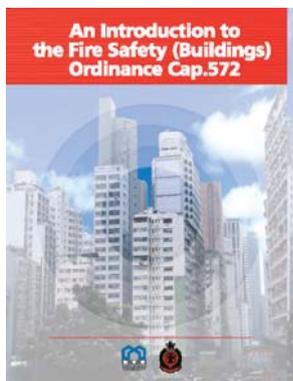
We have put in place a holistic strategy to tackle the long-standing building dilapidation problems. The Mandatory Building Inspection Scheme (MBIS) and the Mandatory Window Inspection Scheme (MWIS) was fully implemented on 30 June 2012 as the long-term measure to address the building neglect problems, foster a building care culture in the community and contribute to a sustainable living environment.

To achieve the dual objectives of creating more job opportunities for construction sector as well as promoting building safety and improving the cityscape and living environment, in collaboration with the Hong Kong Housing Society (HKHS) and the Urban Renewal Authority (URA), we have continued the Operation Building Bright (OBB) program to provide subsidies and technical assistance to help owners of old and dilapidated buildings carry out repair and maintenance works.

Targets	Performance in 2014																					
<ul style="list-style-type: none"> ● Tackling UBW and rectifying building dilapidation <p>(a) To continue the clearance of UBW in target buildings through large scale operations in one go, and to rectify identified building dilapidations including drainage defects.</p>	<ul style="list-style-type: none"> ◆ 11,816 removal orders related to UBW were issued and 22,866 UBW were removed or irregularities rectified. 																					
<table border="1"> <caption>Data for UBW Removal and Rectification (2009-2014)</caption> <thead> <tr> <th>Year</th> <th>No. of UBWs removed/irregularities rectified</th> <th>removal orders issued</th> </tr> </thead> <tbody> <tr> <td>2009</td> <td>42,000</td> <td>32,000</td> </tr> <tr> <td>2010</td> <td>26,000</td> <td>23,000</td> </tr> <tr> <td>2011</td> <td>18,000</td> <td>9,000</td> </tr> <tr> <td>2012</td> <td>14,000</td> <td>12,000</td> </tr> <tr> <td>2013</td> <td>15,000</td> <td>12,000</td> </tr> <tr> <td>2014</td> <td>23,000</td> <td>12,000</td> </tr> </tbody> </table>	Year	No. of UBWs removed/irregularities rectified	removal orders issued	2009	42,000	32,000	2010	26,000	23,000	2011	18,000	9,000	2012	14,000	12,000	2013	15,000	12,000	2014	23,000	12,000	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><i>Before</i></p> </div> <div style="text-align: center;"> <p><i>After</i></p> </div> </div>
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Targets	Performance in 2014
<p>(b) To continue the clearance operation of UBW in buildings along pedestrian streets against unauthorised large glass panels, advertisement signboards and TV displays on the external walls.</p> 	<ul style="list-style-type: none"> ◆ In 2014, we continued to take follow-up enforcement actions of the outstanding orders issued against large unauthorised glass panels, advertisement signboards and TV displays on the external wall of 393 target buildings under the clearance operations in the preceding years. ◆ At the end of 2014, majority of these orders had been complied with. We would continue to step up efforts in clearing the remaining 31 outstanding orders.
<ul style="list-style-type: none"> ● Clearance Operation on Unauthorised Roof Structures Ensemble <p>To continue the clearance operation to assist building owners to improve the conditions of their buildings by carrying out clearance of UBWs on rooftops, flat roofs, yards and lanes constituting safety hazard or environmental nuisance.</p>	<ul style="list-style-type: none"> ◆ In 2014, 200 domestic/composite buildings were targeted in the operation. Since the launch of the operation in late 2009 and up to the end of 2014, 810 industrial buildings and 1,521 domestic/composite buildings had been targeted with a total of 15,988 removal orders and 57 repair/investigation orders issued. Among these orders, 4,088 had been complied with.

Targets	Performance in 2014
<ul style="list-style-type: none"> ● Large Scale Operation on inspection of sub-divided flats <p>To continue the Large Scale Operation on inspection of sub-divided flats in target buildings and rectification of irregularities of building works associated with the sub-divided flats.</p>	<ul style="list-style-type: none"> ◆ In 2014, 308 domestic/composite/industrial buildings were targeted for the operation. A total of 2,218 sub-divided flats were inspected under the Large Scale Operation and arising from individual reports on sub-divided flats, irregularities of 295 sub-divided flats were rectified.
<ul style="list-style-type: none"> ● Improving fire safety measures in certain existing buildings and premises <p>To improve the existing fire safety measures in prescribed commercial premises, (i.e. banks, off course betting centres, jewellery shops, supermarkets and shopping arcades), as well as pre-1987 commercial buildings and composite buildings.</p>	<ul style="list-style-type: none"> ◆ In 2014, 67 prescribed commercial premises, 22 specified commercial buildings and 400 composite buildings were inspected for enforcement action under the Fire Safety (Commercial Premises) Ordinance Cap. 502 and the Fire Safety (Buildings) Ordinance Cap. 572. ◆ In 2014, a total of 6,439 fire safety directions were issued to require improvement of the fire safety construction in such premises/buildings.

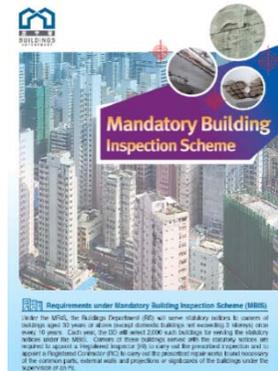
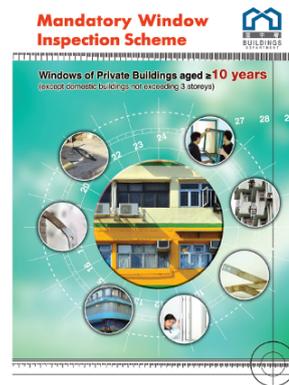
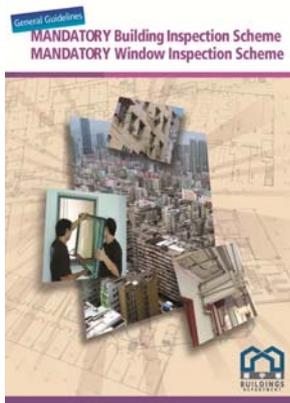


Targets	Performance in 2014
<ul style="list-style-type: none"> ● Establishing long-term measures to tackle building maintenance problems <p>To tackle the building maintenance problems in buildings aged 30 or above, the MBIS commenced in 2012.</p> <p>To tackle the building maintenance problems in buildings aged below 30 years, an operation was launched in April 2011. The operation would include enforcement action on actionable UBW identified during the inspections.</p>	<ul style="list-style-type: none"> ◆ In 2014, 2,217 repair/investigation/removal orders were issued to the target buildings of this special operation.
<ul style="list-style-type: none"> ● Providing financial assistance to building owners <p>To continue administering the Building Safety Loan Scheme to provide loans to private building owners for the carrying out of repair works or removal of UBW.</p>	<ul style="list-style-type: none"> ◆ A total amount of loan of about HK\$ 118 M was committed in 2014. 

Targets	Performance in 2014
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- Mandating building inspection and maintenance**

To continue the implementation of the MBIS and the MWIS and review the progress of the schemes, and fine-tune the modus operandi in the light of experience gained and feedback from stakeholders and the community.



- ◆ General Guidelines and pamphlets on MBIS and MWIS were updated in May 2014.
- ◆ The Technical Committee on the Code of Practice for the MBIS and MWIS (CoP) was set up in January 2014 and the CoP was updated in September 2014.
- ◆ Revised Practice Note for Mandatory Building and Window Inspection Schemes (PNBI) PNBI-3 was issued in May 2014 to introduce new and updated specified forms under MBIS and MWIS.
- ◆ 1,018 buildings were targeted for implementation of MBIS and MWIS concurrently in 2014.
- ◆ Each quarter, district briefing sessions would be conducted at various districts for the owners of targeted buildings under the MBIS and MWIS. Since June 2012, we had conducted a total of 169 district briefing sessions (50 sessions were held in 2014) in various districts to explain the details of the two schemes and, with the participation of URA/HKHS, the assistance packages available to eligible building owners.

Targets	Performance in 2014
<ul style="list-style-type: none"> ● Operation Building Bright (OBB) <p>To assist owners of target dilapidated buildings who are having difficulties in coordinating repair works, the BD in exercise of its statutory power serves repair order in respect of common parts of the target buildings and arranges to carry out the repair works in default of the building owners who are eligible to a grant under the OBB.</p>	<ul style="list-style-type: none"> ◆ In 2014, we continued to engage consultants and contractors to carry out repair works for OBB target buildings in default of the owners. Since the launching of the Operation, we had engaged consultants and contractors to carry out repair works in default of the owners for 1,213 target buildings (156 in 2014) and the repair works for 896 of them (193 in 2014) have been completed.
<ul style="list-style-type: none"> ● Removal of abandoned/dangerous signboards <p>To continue the enforcement action against abandoned/dangerous signboards.</p>	<ul style="list-style-type: none"> ◆ In 2014, we removed/repared a total of 1,301 abandoned/dangerous signboards.
<ul style="list-style-type: none"> ● Minor Works Control System <p>To continue the implementation of the minor works control system (MWCS). The MWCS provides a lawful, simple, safe as well as convenient means for building owners to carry out small-scale building works in order to improve safety standard of building works and facilitate compliance.</p>	<ul style="list-style-type: none"> ◆ In 2014, we received about 106,000 minor works (MW) submissions. MW relating to (i) windows; (ii) rendering & tiling; and (iii) repair of structural elements were three main areas of works which amounted to around 30%, 23% and 11% respectively of the total submissions in 2014.
<ul style="list-style-type: none"> ● Household Minor Works Validation Scheme <p>To continue implementation of the Household Minor Works Validation Scheme which facilitate members of the public to retain, after validation, minor household installations including air-conditioner supporting frames, drying racks and small canopies constructed without the prior approval of plans from the BD before the date of commencement of operation of the Scheme.</p>	<ul style="list-style-type: none"> ◆ In 2014, 8 minor household installations were validated. MW submissions related to air-conditioner supporting frames, drying racks and small canopies amounted to around 9%, 0.3% and 0.6% respectively of the total MW submissions in 2014.

Targets	Performance in 2014
<ul style="list-style-type: none"><li><i>Validation Scheme for unauthorised signboards under the Signboard Control System</i> <p>To continue implementation of the Validation Scheme for Unauthorised Signboards (VS) to enhance the safety of the existing unauthorised signboards. Eligible unauthorised signboards that existed before the date of implementation of the VS may be retained for continued use after inspection, strengthening (if required) and submission of certification of the structural safety by prescribed building professional and/or registered contractor to the BD.</p>	<ul style="list-style-type: none"><li>◆ The Validation Scheme for Unauthorised Signboards was launched on 2 September 2013. Up to end of 2014, we received a total of 176 submissions of certification under the VS. Out of these 176 submissions, 51 submissions involving the validation of 30 signboards were acknowledged, and 58 submissions could not be processed as incorrect or incomplete information was found. The remaining 67 submissions were being processed.

IMPLEMENTATION OF GREEN OFFICE MANAGEMENT

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 strive to fulfil the commitments set out in the Clean Air Charter to make sustained improvement to air quality.

3.1 Accomplishing the Clean Air Charter



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. We strive to fulfil the six commitments in the Charter to implement environmentally friendly measures in our daily operations.

Commitments	Performance in 2014
(1) Operate by a recognised world class standard, or the standards established by the Hong Kong/Guangdong governments on emission of air pollutants.	◆ In our operation, we continued to observe and comply with the ordinances and regulations on environmental protection related to our operation, where applicable.
(2) Use continuous emissions monitors at significant sources.	◆ This commitment was not applicable to our operation which was mainly office-based and would not generate significant air emission.

Commitments	Performance in 2014
<p>(3) Publish information on energy and fuel use, as well as total emission of air pollutants annually and timely, if emissions are significant.</p>	<ul style="list-style-type: none"> ◆ The source of energy and fuel consumption related to our operation included the Use of Electricity and Vehicle Fleet. Such sources produce air pollutant emission of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP). ◆ Our total electricity consumption in 2014 was 3,120,814 kWh, which was 41,502 kWh or 1.35% more than that consumed in 2013. The main reason for the rise was due to the departmental manpower growth of 3.25%. <p style="text-align: center;">Estimation of the air pollutant emission:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>SO₂ 5,961 kg</p> </div> <div style="text-align: center;"> <p>NO_x 3,620 kg</p> </div> <div style="text-align: center;"> <p>RSP 187 kg</p> </div> </div> ◆ We owned a fleet of 34 vehicles, 6 of them were Hybrid Electric Vehicles and 8 of them were Electric Vehicles. The 34 vehicles travelled 448,578 km in 2014 and the total fuel consumption was 42,277.5 litres of petroleum. The consumption of fuel per km was 6.34% less than that in 2013 which was due to the increase in the frequency of using electric/hybrid electric vehicles.. <p style="text-align: center;">Estimation of the air pollutant emission:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>NO_x 404 kg</p> </div> <div style="text-align: center;"> <p>RSP Negligible</p> </div> </div>
<p>(4) Undertake to adopt energy-efficient measures in our operations.</p>	<ul style="list-style-type: none"> ◆ We continued to adopt the following energy-efficient measures in our office-based and transportation operation to minimise energy consumption through: <ul style="list-style-type: none"> – Maintaining the air-conditioning temperature at 25.5°C and monitoring the room temperature regularly.

Commitments	Performance in 2014
	<ul style="list-style-type: none"><li>– Encouraging our staff to dress casual and smart in summers and lightly in winters to minimise the use of air-conditioning.<li>– Installing high output, energy-saving lighting fixtures (T5 fluorescent lamps) in our offices.<li>– Reminding our staff to turn off lights, air-conditioners and office equipment while they were not in use by affixing “Energy Saving” stickers on power switches.<li>– Enabling the hibernation mode or standby mode setting of office equipment and turning them off when they were not in use.<li>– Using timer-switches on electric equipment and office appliances in various sections to save electricity in stand-by mode.<li>– Appointing energy wardens in all divisions to ensure implementation of energy saving measures and arranging last-man-out to check and turn off all air-conditioning, lighting and office equipment.<li>– Adopting other energy saving practices such as encouraging our staff to use staircases for inter-floor traffic, controlling the use of personal electrical appliances in office, and circulating guidelines on energy saving and green tips.<li>– Encouraging our staff to walk or use public transport whenever possible.<li>– Promoting shared-use of pool cars in order to fully utilise each government vehicle.<li>– Reminding motor drivers to switch off idling engines in compliance with the Motor Vehicles Idling (Fixed Penalty) Ordinance.<li>– Requesting motor drivers to drive at a steady speed and avoid sudden braking.

Commitments	Performance in 2014
<p><i>(5) Identify and encourage business-relevant measures to be taken in days when air pollution is high.</i></p>	<p>◆ We continued to encourage our staff to adopt the following measures in our general office and transportation operation:</p> <ul style="list-style-type: none">– Sharing pool cars or using public transport where possible.– Combining trips to maximise the use of departmental vehicles and planning routes to minimise the journey distance and time.– Avoiding the use of products with high Volatile Organic Compound content by incorporating such requirements in procurement contracts.
<p><i>(6) Share air quality expertise in business with others.</i></p>	<p>◆ We shared our experience on energy saving and pollution reduction by publishing our Environmental Report on our website. Interested parties are welcome to contact us if they wish to obtain further information or details.</p>

3.2 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 as well as with our stakeholders and public via electronic means.

Targets	Performance in 2014
<ul style="list-style-type: none"> ● On public front (a) To disseminate information to the public via the BD's website and the thematic website as our communication platform. 	<ul style="list-style-type: none"> ◆ The BD's website continued to provide information on the functions and services of the Department including among others, the following: <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="background-color: #d9e1f2; padding: 5px; border: 1px solid #ccc;"> Publications <ul style="list-style-type: none"> ● Monthly Digest ● Codes of Practice & Design Manual ● Practice Notes & Circular Letters for AP/RSE/RGE/RI/QP/RC </div> <div style="background-color: #d9e1f2; padding: 5px; border: 1px solid #ccc;"> Notices <ul style="list-style-type: none"> ● Consultancy and Contract Tender Notices ● Recruitment </div> <div style="background-color: #d9e1f2; padding: 5px; border: 1px solid #ccc;"> Publicity <ul style="list-style-type: none"> ● Pamphlets ● Press Release ● TV Announcements of Public Interest </div> </div> ◆ The BD Websites Editorial Board was set up in February 2014 to review the contents of both websites so that the information would be presented in a succinct and coherent manner and that they would be up-to-date and easily accessible. The first phase of enhancing webpages of BD's website, including revamping the "Homepage", "MBIS and MWIS" and a new webpage on "Legal matters" was scheduled to be completed by January 2015. ◆ To put Green Culture in action, an "e-Briefcase" containing electronic format of all PNAP and other useful materials was continuously updated for use by Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (AP/RSE/RGE). ◆ We continued to inform all AP/RSE/RGE via email of any new/revised Code of Practice, Design Manual, PNAP, PNBI and/or circular letters which can be downloaded from our web-site.



Homepage of BD Website

Targets	Performance in 2014
 <p>Homepage of Thematic Website</p>	<ul style="list-style-type: none"> ◆ We continued to inform all Registered Contractors (RC) via email or Short Message Service (SMS) of any new/revised Code of Practice, Practice Notes for Registered Contractors (PNRC), PNBI and/or circular letters which can be downloaded from our web-site. ◆ We continued to inform all Registered Inspectors (RI) and Qualified Persons (QP) via email or SMS of any new/revised Code of Practice, PNBI and/or circular letters which can be downloaded from our web-site. ◆ The thematic website “Care for Your Building” continued to provide building safety information in a fun and easy to understand way to attract younger people to help them understand their roles and responsibilities towards a safe and sustainable built environment.
<p>(b) To launch mobile application for the general public to have a quick and easy communication platform to access information.</p>	<ul style="list-style-type: none"> ◆ We launched the mobile application on the MWCS – “Quick Guide for Minor Works” in September 2014 providing a quick and easy channel for the public to access useful information concerning MWCS. 

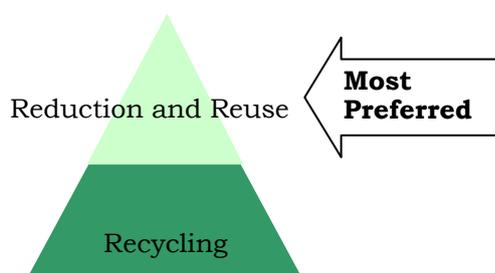
Targets	Performance in 2014
<p>(c) To simplify the viewing and copying of building records through the implementation of Buildings Records Access and Viewing On-line (BRAVO) system over the Internet.</p>	<ul style="list-style-type: none"> ◆ The BRAVO system offers round-the-clock service which allows members of public to view building records through the Internet anytime and anywhere in Hong Kong. ◆ In 2014, we handled 94,700 applications for viewing electronic records (include minor works records), out of which 71,700 were processed by the BRAVO system over the Internet 
<p>(d) To accept submission of documents in electronic format.</p>	<ul style="list-style-type: none"> ◆ By virtue of the Electronic Transactions Ordinance, we continued to accept simple electronic submissions under the BO through our Lotus Notes email system. ◆ According to the recommendations of the feasibility study on the implementation of an Electronic Submission System completed in October 2013, a full E-forms Submission System (EFSS) should be implemented to facilitate, among others, the online submission of forms. The development of the EFSS would start in March 2015 and is scheduled to be put into operation in April 2016. <p>In view of the low usage of digital signature in Hong Kong, other legally admissible alternatives, such as a password-protected system for electronic submission, to encourage more users to opt for online submission in the future were being explored.</p> <p>Besides, as the feasibility study revealed that it would be difficult and not cost effective for the BD to set up a portal on its own to receive electronic plans, BD is liaising with the Office of the Government Chief Information Officer (OGCIO) and the Development Bureau to explore whether it would be possible to set up a cross-departmental portal to receive electronic plans in the future.</p>

Targets	Performance in 2014
<ul style="list-style-type: none"> ● In our work place (a) To disseminate information and to introduce more green measures through increasing usage of LAN as a communication platform. 	<ul style="list-style-type: none"> ◆ We continued to disseminate information through electronic notice board, our Local Area Network (LAN) and emails. In-house surveys via electronic questionnaires facilitated the collection and compilation of information in an environmentally friendly manner. Discussion forums were set up for knowledge sharing among our staff in a paperless environment. Our email system was provided with advance functions to improve collaboration of work via the email network. The web-based photo library system continued to facilitate the sharing of site inspection photos among sections/units for better co-ordination of work. ◆ Mobile and Cloud Computing technology were adopted for reporting dangerous/abandoned signboards through mobile environment. ◆ Mobile devices deployed to colleagues had been provided with add-on feature "Junos Pulse", to facilitate access to BD Handbook and Instructions as well as internal manuals in lieu of paper copies. ◆ Mobile devices had been deployed for use in Registration Committee meetings for members to view softcopies of registration application documents in lieu of paper copies.
	<div style="display: flex; justify-content: space-around;"> <div> <p>Electronic Notice Board</p> <ul style="list-style-type: none"> • Notices • Circulars • Newsletters </div> <div> <p>Our LAN</p> <ul style="list-style-type: none"> • Office Instructions • Office Manuals • Discussion forums • Questionnaires • Site inspection photos </div> </div>

Targets	Performance in 2014
(b) To implement the Accessibility Program to provide all staff with email address.	<ul style="list-style-type: none"> ◆ All our staff were provided with email addresses for communication. LAN Link speed in all BD offices were upgraded to further improve the efficiency for dissemination of information. Open Source Departmental Portal Solution was implemented in July 2014 to improve the stability and efficiency of the Departmental Portal with more e-services hosted under single-sign-on functionalities.
(c) To implement the electronic leave system (e-Leave).	<ul style="list-style-type: none"> ◆ E-Leave continued to provide speedy and paperless leave application and processing services for all our staff.
(d) Green Management of Data Centre and Green IT Measures	<ul style="list-style-type: none"> ◆ Server virtualization technology was used to reduce the number of physical servers required thereby cutting down electricity power consumption. ◆ Unless overridden by users still working in the office, their computers were turned off automatically at a preset time to reduce unnecessary power consumption. ◆ All new printers were equipped with EcoPrint or Energy Saving Mode with Duplex Printing feature. ◆ All servers, printers and desktop personal computers were Energy Star & Restriction of Hazardous Substances (RoHS) Compliant. ◆ Network backup had been used to gradually replace manual backup thereby reducing transportation and storage of tapes. ◆ Electronic devices were provided to Chief Officers and above to facilitate paperless meetings. The BD was one of the user departments of the paperless meeting system developed by the OGCIO. The system was being upgraded to cater for the use of tablets other than notebooks. As tablets were more commonly used for meetings by our senior officers, we would keep in view the progress of the system upgrade and would consider using the system in meetings once the upgrade had been completed. ◆ Notifications to registered professionals and contractors were made via bulk SMS and emails instead of paper.

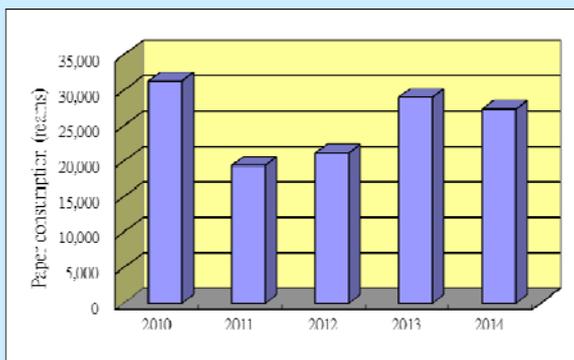
Targets	Performance in 2014
(e) Electronic Information Management (EIM) Strategy Study and Electronic Document Management System	<ul style="list-style-type: none"> ◆ EIM Strategy Study conducted by the Efficiency Unit (EU) was endorsed in November 2014. The study would assist us to formulate the standards and roadmap for the implementation of the Electronic Document Management System. Such a system would help us reduce the use of paper and proper keeping of records in accordance with the requirements of the Government Records Service.

3.3 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. Extant BD Administration Circular No. 5/2012 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 2014
Reduction	<ul style="list-style-type: none"> ◆ Our total paper consumption in 2014 was 27,379 reams, which was 5.63% lower than that in 2013. ◆ We reduced the use of paper by: <ul style="list-style-type: none"> – Adopting double-sided printing and photocopying, and printing of multiple pages into one page. – Using emails instead of paper memos and faxes for internal and external communications. – Minimising the production of hardcopies of documents. – Sending e-cards. – Using iPad in all Professional Registration Committee meetings. ◆ Recycled paper in lieu of virgin paper had continuously been used in the Department. In 2014, 43.07% of the total amount of paper consumed was recycled paper.



Targets	Performance in 2014
<p>Reuse</p>	<ul style="list-style-type: none"> ◆ We promoted the reuse of resources by: <ul style="list-style-type: none"> – encouraging our staff to use blank side of used paper for drafting, filing and printing. – reusing envelopes for internal circulation. – using ball pens with refills. – placing used paper with a blank side near high paper usage equipment e.g. photocopier, to facilitate reuse. ◆ A total of 804,650 nos. of envelopes were consumed in 2014 which was 104.28% more than that consumed in 2013. This was mainly due to the launch of some operations and publicity activities.
<p>Recycling</p>	<ul style="list-style-type: none"> ◆ We collected recyclable waste materials by: <ul style="list-style-type: none"> – placing collection bags in offices for recycling of waste paper. – placing paper recycling collection boxes near high paper usage equipment in our workplaces. – requesting our staff to return used printer cartridges to the Supplies Unit. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> ◆ With the support from our staff, we collected a total of 35,482 kg waste paper and 335 units of used printer cartridges for recycling in 2014.

3.4 Procuring Green Products

We purchased green products to show our responsibility to save the Earth and support for the recycling industry.



Pencils made of recycled materials



T5 Fluorescent tube



Recycled paper



Rechargeable batteries

3.5 Knowledge Management System

Targets	Performance in 2014
To develop a knowledge management system for better sharing of information and knowledge.	<ul style="list-style-type: none">◆ EIM strategy study conducted by the Efficiency Unit (EU) was endorsed in November 2014. The study would cover Contents Management, Record Management and Knowledge Management for all Divisions/Sections of the department. As short-term measures for sharing of information and knowledge, we set up a database called “BD Knowledge Hub” under the Lotus Notes platform to centrally store the knowledge-based information for staff reference. Research & Development Unit collects, uploads and updates all useful information to the Hub periodically.◆ As a long-term strategy, we would develop a Knowledge Management and Departmental collaboration platform to facilitate collaborative effort within/across divisions for better sharing of information and knowledge.

EDUCATION AND TRAINING

It is our belief that the success of moving towards sustainability depends upon the degree of all levels of commitment across the community.

4.1. Educating and Engaging the Public on Sustainability

On top of engaging the community in the process of formulating strategies conducive to sustainable development, we instill the concept of timely maintenance of existing buildings and green buildings into the public through our publicity programmes.

To enhance the awareness of the community on the importance of building safety and timely maintenance, the Public Education and Publicity Unit has held a series of seminars, roadshows, exhibitions and building safety carnival to promote and publicise the current and new building safety initiatives and educate the stakeholders. Also, the Comic Drawing Competition and the Building Safety Pioneer Programme (BSPP) for primary and secondary school students, and the “Our People Our Homes” photo competition for the general public were launched to help promote building safety to the younger generation as well as the general public.

Target	Performance in 2014
<p>(a) To promote and publicise all 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>◆ We organized the Building Safety Carnival 2014 in November 2014 at the Comic Home Base in Wanchai to promote the MBIS and MWIS to students and the general public.</p>   <p>Exhibits of MBIS/MWIS</p>

Target	Performance in 2014
	<ul style="list-style-type: none"><li>◆ We set up building safety exhibition booths at the “2014 World Skills Hong Kong Competition cum Construction Industry Mega Fun Day” and the “Hong Kong Institution of Engineer’s Hi-Tech Fiesta 2014” in June 2014. 
	<ul style="list-style-type: none"><li>◆ We organized 49 talks for schools and universities. 
	<ul style="list-style-type: none"><li>◆ We organized 89 talks for Owners’ Corporations, building owners, property management companies and stakeholders in the industry. 

Target	Performance in 2014
<p>(b) To promote and publicise building safety information to the public and younger people through BD's official Youtube and Facebook channels</p>	<ul style="list-style-type: none"> ◆ We organized “Our People Our Homes” photo competition for the general public and hosted exhibitions of the winning entires to promote building safety. <div style="text-align: center;"> </div> <ul style="list-style-type: none"> ◆ We made preparations to launch the BD Youtube channel (BDGOVHK) and Facebook fan page to disseminate information relating to building safety to the public and younger people. <div style="text-align: center;"> </div> <div style="text-align: center;"> </div>

4.2. Training our Staff

Our training and development programmes place great emphasis on equipping our staff to play appropriate roles in facilitating sustainable developments by offering a variety of training courses on the subject.

The Environmental Protection Department was invited to deliver a green talk on “A Clean Air Plan for Hong Kong” and “Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022” in June 2014 to equip our staff with useful knowledge of green policies and practical tips which helped raise their awareness and develop good habits on environmental protection.

As at 2014, there was a total of 128 professional officers who attended the BEAM Professionals (BEAM Pro) Training organised by HKGBC. Some of them are responsible for scrutiny of building plans submission including BEAM Plus certification for all new buildings applying for GFA concessions.

Target	Performance in 2014
<p>To provide more than 500 training man-days on topics related to green building and sustainability in 2014.</p>	<p>◆ 45 local seminars/courses/conferences on environmental and heritage conservation issues, 3 site visits to environmentally friendly and innovative buildings, and 5 overseas duty visits for visiting/attending international conferences on sustainable and innovative buildings were organised. A total of 553 training man-days were organised on topics related to green building and sustainability.</p>

WAY FORWARD

We will continue to address sustainability in promoting construction of green and sustainable new buildings, enforcing the timely inspection and maintenance to the existing building by means of reviewing/implementing the statutory requirements as well as administrative guidelines. We will also sustain our public education and publicity efforts to develop a culture of proper care and responsibility to our built environment so as to enhance our standard of living.

We look forward for the implementation of the energy efficient guidelines and practice notes for new residential buildings to promote green and sustainable built environment for our next generation.

Looking ahead, we will continue to:

- Review and upgrade the building design standards to achieve more positive environmental outcomes
- Promote green, eco-efficient and sustainable building designs and developments which reduce environmental impacts in terms of energy, carbon, waste and water
- Facilitate preservation of identity and culture of the built heritage
- Promote building hygiene and preventive maintenance of buildings
- Implement green office management
- Educate our staff and the public in social responsibility and practices to contribute towards sustainability

FEEDBACK

Your views and suggestions are most welcome. It will help formulate our sustainable policies and strategies and support our continual improvement. For any suggestions/views in connection with this report, please contact us by:

Online Electronic Feedback Form

Email : enquiry@bd.gov.hk

Website : <http://www.bd.gov.hk/>

Hotline : 1823

Fax : 2537 4992

Mail: 12/F Pioneer Centre, 750 Nathan Road, Mongkok, Kowloon, Hong Kong

Thank you for reading our report

**This report is also available for viewing at our website
http://www.bd.gov.hk/english/documents/index_env.html(English version) or
http://www.bd.gov.hk/chineseT/documents/index_env.html (Chinese version)**

Feedback

We value your feedback on our Environmental Report to help us make improvements in the coming year. You may click [here](#) to complete and submit the following form (Question 1 to Question 5) online. Thank you in advance for your views.

Question 1. Which sector of the community are you from?

- Youth/Student
- Building professional
- General public

Question 2. How do you rate the readability of the Report?

- Good
- Average
- Poor

Question 3. Further information you would suggest for inclusion in the Report?

- Charts
- Tables
- Hyperlinks to other information
- Others, please specify

Question 4. How do you rate the Report's contribution to your understanding of our environmental performance?

- Good
- Average
- Poor

Question 5. Which part of the Report are you most interested in?

- Buildings Department and the environment
- Promoting a sustainable built environment
- Implementation of green office management
- Education and training

Other comments and suggestions: _____

The data collected by this feedback form is solely for statistic analysis purpose to help us make improvements in the coming year. Individual views/feedbacks will not be disclosed.