

**BUILDINGS DEPARTMENT  
ENVIRONMENTAL REPORT  
2012**



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### WAY FORWARD

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# FOREWORD

*Serving the community as a harmonising regulator, we will continue to work with building owners and all stakeholders concerned to create quality homes and a greener living environment for all.*



I am pleased to present our fourteenth Environmental Report covering our environmental performance in 2012.

Our strategy for addressing sustainability is to promote the construction of green and sustainable new buildings and to assist building owners to rehabilitate our existing building stock through timely maintenance and repairs. As a department with some 1600 staff in 2012, we also implement good practices of green management in our workplace.

Our focus in 2012 was mainly a continuation of our past efforts. In particular, we continued the review of our legislation and requirements to identify practical measures to improve energy efficiency in residential buildings that would be applicable to the local climate. We also maintained an enquiry service to help designers fulfil the requirements under the Sustainable Building Design Guidelines to promote building separation, building setback and site coverage of greenery of new building developments.

Following the tragic incident of the building collapse at Ma Tau Wai Road in 2010 and the fatal fire incident at Fa Yuen Street in Mongkok in 2011, we have introduced a number of major legislative amendments to enhance our control regime on building safety.

The Mandatory Building Inspection Scheme (MBIS) and the Mandatory Window Inspection Scheme (MWIS) introduced in mid 2011 were fully implemented in June 2012. The MBIS and MWIS cover all private buildings (except domestic buildings not exceeding 3 storeys) aged 30 years or above and 10 years or above respectively.

Under the MBIS and MWIS, we issued pre-notification letters and thereafter statutory notices to owners of the targeted buildings, requiring them to undertake prescribed inspections and as necessary prescribed repairs of their buildings and windows.

To tackle unauthorised sub-divisioning of flats at source, we introduced the Building (Minor Works) (Amendment) Regulation 2012. Several types of building works associated with sub-divided flats were included under the Minor Works Control System, so as to strengthen the control of building works commonly involved in the sub-division of flats.

I am pleased to share with you that in recognition of our persistent efforts to promote and facilitate the construction and maintenance of quality and sustainable buildings and the implementation of various environmental friendly office policies, we were awarded the Certificate of Merit for Public Organizations and Utilities of the Hong Kong Awards for Environmental Excellence 2012 by the Environmental Campaign Committee. Serving the community as a harmonising regulator, we will continue to work with building owners and all stakeholders concerned to create quality homes and a greener living environment for all.

**AU Choi-kai, JP**  
Director of Buildings

## BUILDINGS DEPARTMENT AND THE ENVIRONMENT

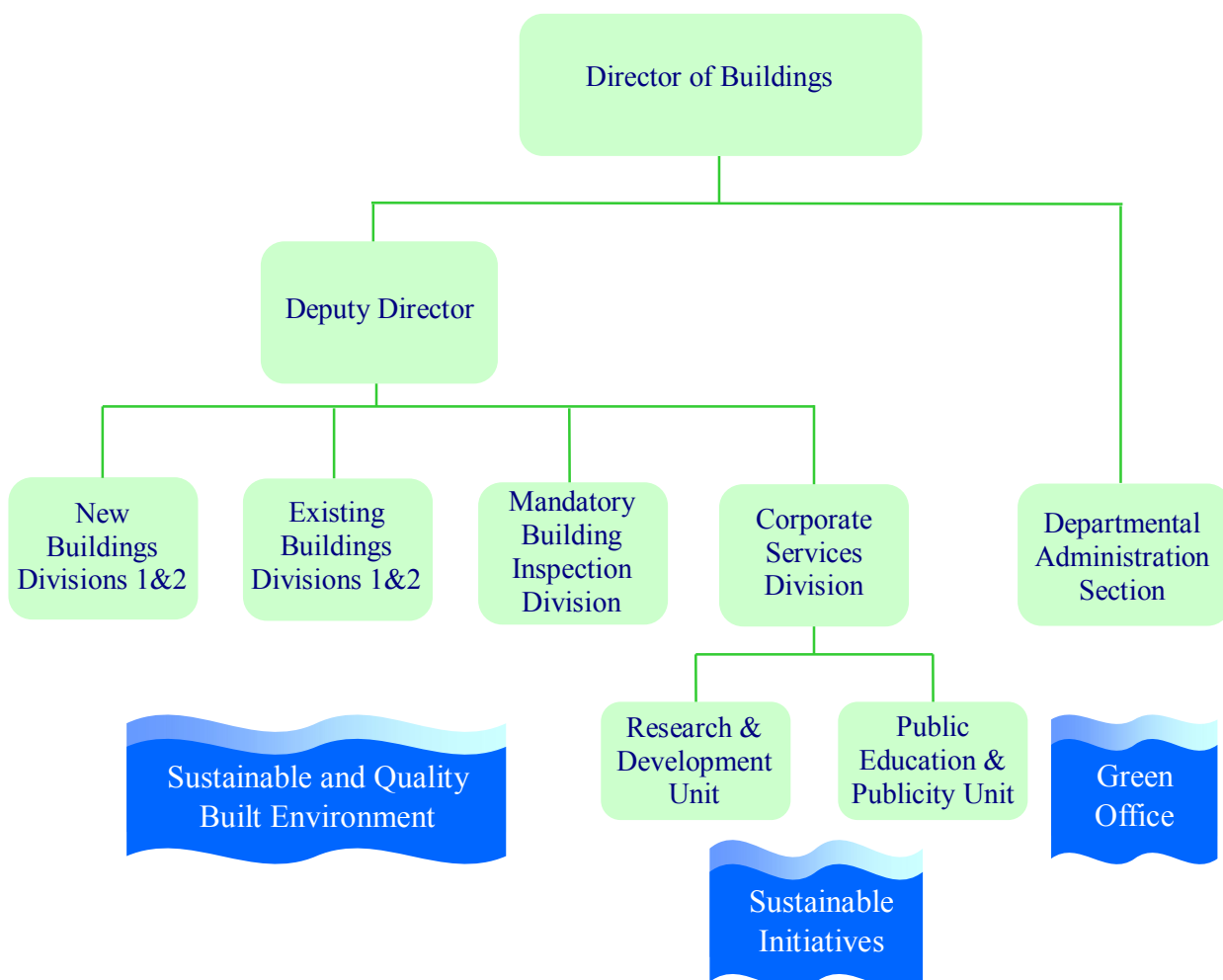
**Our Vision:** To make the built environment safe and healthy for our community.

**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. Organization Chart





## 1.2. Management Commitment

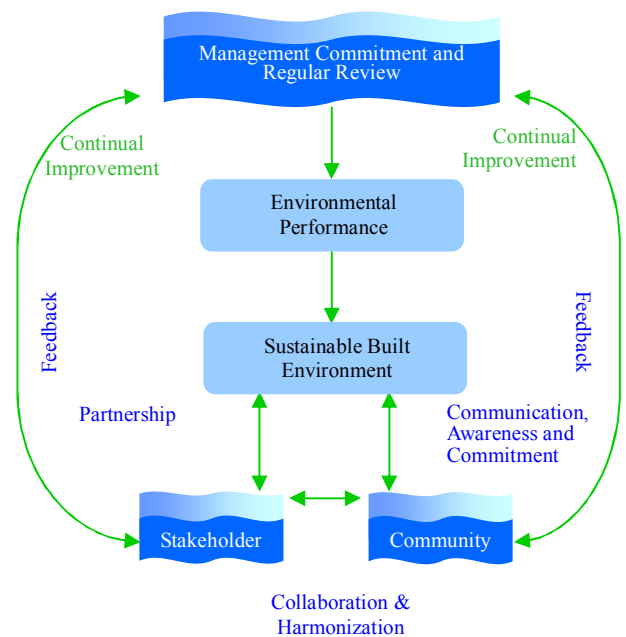
Our commitment and approach to environmental management are established by our determination towards a sustainable environment.

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 as an Associate Member since 2010 and have taken 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.*

## ENVIRONMENTAL PERFORMANCE

### 2.1. 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 environment for both the present and future generations of Hong Kong.

#### 2.1.1. Modernizing Building Design Standards

As an ongoing initiative of enhancing sustainable development, we continue our review of the Buildings Ordinance and allied regulations.

Targets	Performance in 2012
<ul style="list-style-type: none"> <li>● <b>Review of the Buildings Ordinance</b></li> </ul> <p>To review the Building (Planning) Regulations and the Building (Construction) Regulations by including <b>performance-based requirements</b> in addition to the prescriptive standards, where appropriate.</p>	<ul style="list-style-type: none"> <li>◆ Subsequent to the taking effect of the amended Regulation 17 of the Building (Construction) Regulations and the Code of Practice for Dead and Imposed Loads 2011 on 1 August 2011, further review of the regulations were conducted. We aimed to introduce the proposed legislative amendment to the Building (Construction) Regulations to the Legislative Council (LegCo) in 2014/2015.</li> <li>◆ We commenced preparations with a view to commissioning a consultancy study in the 4<sup>th</sup> quarter of 2013 to comprehensively review the Building (Planning) Regulations and make recommendations on the extant planning and design standards so as to bring them in line with the prevailing community aspiration on sustainable building design and keep abreast with advancement of technology and energy efficiency in building design. The study will also seek to update the regulations to facilitate modern and innovative design with a view to developing a performance-based regulatory system.</li> </ul>

Targets	Performance in 2012
<ul style="list-style-type: none"> <li><b>Review of the sanitary fitments, plumbing and drainage provisions for buildings</b></li> </ul> <p>To continue with the review of the <b>current plumbing and drainage standards</b> for private buildings by replacing the prescriptive standards with 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"> <li>The proposed amendments to the drainage regulations and the draft Code of Practice were further refined to take into account of the views from stakeholders. We planned to introduce the proposed legislative amendments to the LegCo in 2013/14.</li> <li>Prior to the proposed legislative amendments, revised Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-93 and ADV-28 on the Planning and Design of Drainage Works and the Provision of Sanitary Fitments in Offices, Shopping Arcades, Department Stores, Places of Public Entertainment, Cinemas and Other Public Places were issued in September and November 2012 respectively.</li> </ul>
<ul style="list-style-type: none"> <li><b>Review of the Building (Energy Efficiency) Regulation</b></li> </ul> <p>To keep under regular review of the use of the Code of Practice for Overall Thermal Transfer Value (OTTV) in Building (Energy Efficiency) Regulation (B(EE)R) on the energy efficiency of buildings.</p> 	<ul style="list-style-type: none"> <li>Preparation was made for setting up a Technical Committee to collect views and consider comments or feedback arising from the use of the OTTV Code, relevant advancement in design, technologies and construction methods, and latest relevant overseas regulatory control and standards.</li> </ul>

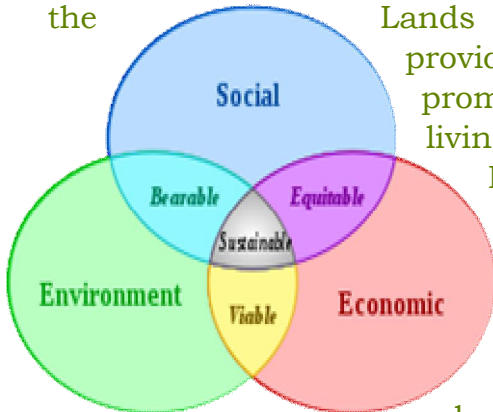
Targets	Performance in 2012
<ul style="list-style-type: none"><li data-bbox="183 315 734 470"><b><i>Design and Construction Requirements for Residential Buildings for Energy Efficiency</i></b></li></ul> <p data-bbox="183 515 726 672">To conduct a consultancy study to develop a set of design and construction guidelines for improving energy efficiency in residential buildings.</p> 	<ul style="list-style-type: none"><li data-bbox="782 510 1476 705">◆ The consultant completed the review of the legislation, requirements and practices to identify practical measures in improving energy efficiency in residential buildings applicable to the local environment.</li><li data-bbox="782 750 1476 945">◆ After further consultation with stakeholders on the draft design and construction guidelines for improving energy efficiency in residential buildings, the consultant had made refinements to the guidelines.</li><li data-bbox="782 990 1476 1184">◆ We planned to issue the “Guidelines on Design and Construction Requirements for Residential Buildings for Energy Efficiency” after consultation with all stakeholders, in early 2014.</li></ul>




# CHAPTER 2

## 2.1.2. Promoting Green and Sustainable Building Developments

We have since 2001 introduced, jointly with the Planning Department (PlanD) and the Lands Department (LandsD), incentives for developers to provide green features in new building developments for promoting green and innovative buildings and quality living space.



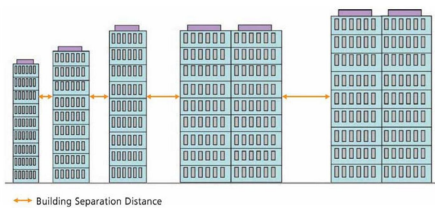
Following the extensive Public Engagement Exercise on Building Design to Foster a Quality and Sustainable Built Environment conducted in conjunction with the Council for Sustainable Development (SDC), the Administration announced in October 2010 a new policy to foster a quality and sustainable built environment through building design. The Buildings Department has been tasked to promulgate the measures recommended in the SDC's report on the Public Engagement Exercise.

Targets	Performance in 2012
<ul style="list-style-type: none"> <li><b>Promulgating sustainable practices</b></li> </ul> <p>To issue PNAPs to promulgate building design guidelines in order to <b>improve the standards of living space.</b></p> 	<ul style="list-style-type: none"> <li>Revised PNAP APP-19 was issued in November 2012 to incorporate the design requirements of window flower boxes so as to improve building safety.</li> <li>Revised PNAP APP-93 was issued in September 2012 to incorporate the design requirements of sunken slab for accommodating pipeworks to facilitate future inspection of such pipework.</li> <li>Revised PNAP APP-132 was issued in December 2012 to promulgate the new "Open Space Approach" as an alternative to meet the site coverage and open space requirements so as to allow greater flexibility in the design of innovative and sustainable buildings.</li> </ul>

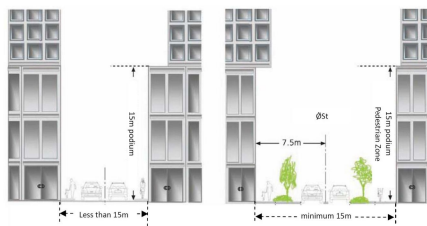
Targets	Performance in 2012
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- Promoting sustainable building design**

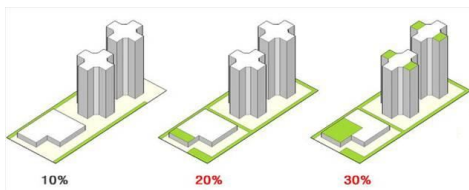
To monitor the implementation of the new GFA concessions policy, in particular, the requirements under PNAP APP-152 on Sustainable Building Design (SBD) Guidelines to promote building separation, building setback and site coverage of greenery of buildings.



**Building Separation**

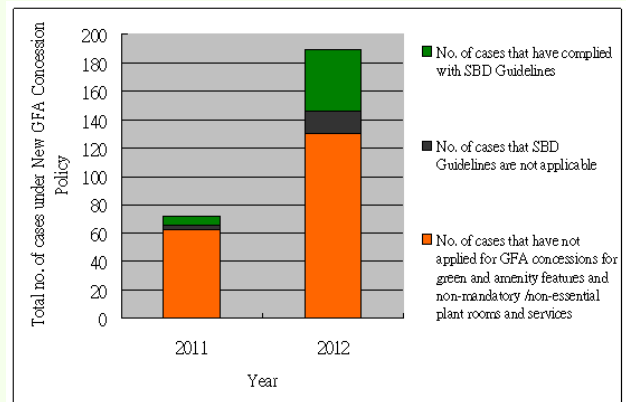



**Building Set Back**



**Site Coverage of Greenery**

- ◆ Since the implementation of the new GFA concessions policy on 1.4.2011, the Buildings Department takes into account compliance with the SBD Guidelines, where applicable, as a pre-requisite in granting GFA concessions for certain green and amenity features and non-mandatory / non-essential plant rooms and services.
- ◆ We provided pre-submission enquiry service to help designers fulfill the SBD Guidelines, in the form of either a response to enquiry submissions or through informal discussions at the Buildings Department's office.
- ◆ As at 31.12.2012, a total of **261** new development proposals have been approved under the new GFA concessions policy. Out of which, **50** proposals have complied with the SBD Guidelines; the SBD Guidelines are not applicable to **19** proposals; and the remaining **192** proposals have not applied for GFA concessions for green and amenity features and non-mandatory / non-essential plant rooms and services.



Targets	Performance in 2012
<ul style="list-style-type: none"> <li>● <b>Wider adoption of green features</b></li> <li>(a) To monitor the implementation of <b>Joint Practice Notes 1 and 2 (JPN1 and 2)</b> aiming to promote green and innovative buildings.</li> <li>(b) To promote better understanding on environmental performance of buildings through <b>BEAM Plus</b> Assessment.</li> </ul> <div style="text-align: center; margin-top: 20px;">  </div>	<ul style="list-style-type: none"> <li>◆ The JPNs 1 and 2 were revised in 2011 as part of the package of measures for implementing the new GFA concessions policy.</li> <li>◆ We had been monitoring the effectiveness of the incentives promulgated in the JPNs 1 &amp; 2.</li> <li>◆ Under the extant GFA concessions policy implemented since April 2011, we continued in 2012 to require certification by BEAM Plus Assessment conferred by the Hong Kong Green Building Council (but without mandating the rating to be achieved) for all new buildings as well as estimation of energy consumption of the common parts of a domestic development and of the entire non-domestic development as pre-requisites for granting GFA concessions for certain green and amenity features and non-mandatory / non-essential plant rooms and services in new building developments. Such information will be posted on Buildings Department's website after the issuance of the occupation permit to enhance transparency of information on energy performance of a building.</li> </ul> <p>As at 31.12.2012, 69 building projects have been registered for the BEAM Plus certification in order to apply for the GFA concessions. No building projects have been completed so far.</p>

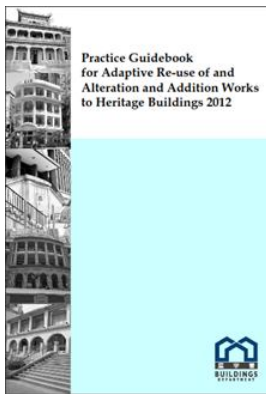
### 2.1.3. Facilitating Conservation of the Built Heritage



We take a proactive approach to support the Government's initiative and to facilitate private sector's participation in heritage conservation.

- **Enhancing heritage conservation**

To conduct research on the building control regime on adaptive re-use of heritage buildings in some overseas countries with a view to formulating guidelines for compliance with building safety and health requirements for **adaptive re-use of and alteration and addition works to heritage buildings** in Hong Kong under the BO.



- ◆ A dedicated team continued to offer technical advice and process building plan submissions involving adaptive re-use of and alteration and addition works to heritage buildings.
- ◆ We commissioned a consultancy study on “Building Design Guidelines for Adaptive Re-use of Heritage Buildings” in 2009. Based on the findings from this consultancy study, we revised a previous interim edition and published a full edition 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” in May 2012. The aim of this Practice Guidebook is to provide design guidelines in terms of straight-forward practical solutions and alternative approach that may be adopted for compliance with the building safety and health requirements under the Buildings Ordinance.
- ◆ We have set up a Technical Committee on Building Safety and Health Requirements for Historic Buildings under the Buildings Ordinance. The committee will provide a platform to collect and consider comments and feedback arising from the use of the Guidebook, relevant advancement in design, technologies and construction methods, and relevant overseas regulatory control and building safety and health standards.



# CHAPTER 2

## 2.1.4. 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 minimize construction and demolition wastes.

Target	Performance in 2012
<ul style="list-style-type: none"><li>● <b>Minimizing construction and demolition wastes</b></li></ul> <p>We will continue to collaborate with the stakeholders on the review of the use of environmentally friendly construction methods with a view to minimizing construction and demolition wastes.</p>	<ul style="list-style-type: none"><li>◆ We processed a total of 52 plan submissions adopting precast concrete construction in 2012.</li><li>◆ We commenced the consultation on reducing the thickness of curtain wall for exclusion from gross floor area calculation.</li><li>◆ We continued to operate the validation schemes for unauthorised household minor works to reduce the need for removal of such unauthorised structures.</li></ul>

## 2.1.5. Improving Environmental Hygiene



In response to the public concerns on the possible dire consequences of building neglect and the perennial environmental hygiene problems, the Buildings Department, as a core member of Team Clean, has continued to participate in improving environmental conditions of some identified black spots through large-scale operations.

Targets	Performance in 2012
<ul style="list-style-type: none"><li>● <b>Rectifying drainage defects</b></li></ul> <p>To work in collaboration with the Home Affairs Department and other relevant government departments to <b>improve environmental conditions</b> of identified blackspots under the Hygiene Blackspots Clearance programme.</p>	<ul style="list-style-type: none"><li>◆ The Hygiene Blackspots Clearance programme (Phase IV) under the Team Clean Operation continued in 2012. Under this programme, a total of 235 buildings were involved and some 432 unauthorized building works (UBW) were removed.</li></ul>
<ul style="list-style-type: none"><li>● <b>Handling water seepage problems</b></li></ul> <p>To continue the operation of the <b>Joint Office (JO)</b> with the Food and Environmental Hygiene Department in handling public reports about water seepage problems.</p>	<ul style="list-style-type: none"><li>◆ The operation of the <b>Joint Office (JO)</b> with the Food and Environmental Hygiene Department in handling public reports about water seepage problems would continue for two more years from April 2012.</li></ul>



Targets	Performance in 2012
<ul style="list-style-type: none"> <li>● <b><i>Promulgating guidelines to facilitate operation and maintenance</i></b></li> </ul> <p>To issue practice notes to promulgate operation and maintenance guidelines in order to improve the <b>environmental hygiene</b> and in turn the <b>standards of living space</b>.</p>	<ul style="list-style-type: none"> <li>◆ A circular letter was issued in May 2012 to remind the practitioners 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.</li> <li>◆ Subsequent to the publication of the "Technical Guidelines on The Design, Installation &amp; Maintenance Of Cast-in Anchors At External Walls Of New Buildings" by the Construction Industry Council, revised PNAP ADV-14 was issued in June 2012 for the provision of cast-in anchor devices in the design and construction of new buildings for use by workers to prevent and/or arrest falls from height when working on the external walls of buildings during repair and maintenance.</li> </ul>

## 2.1.6. Promoting Timely Maintenance and Building Repair

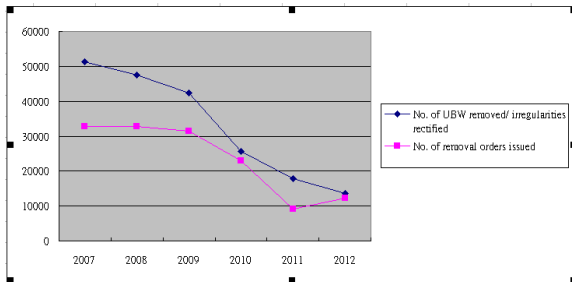
We have put in place a holistic strategy to tackle the long-standing building dilapidation problems. The Mandatory Building Inspection Scheme (MBIS) and the Mandatory Window Inspection Scheme (MWIS) was fully implemented on 30 June 2012 as the long-term measure to address the building neglect problems, 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 program to provide subsidies and technical assistance to help owners of old and dilapidated buildings carry out repair and maintenance works.

Targets	Performance in 2012
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- **Tackling UBW and rectifying building dilapidation**

(a) To continue the clearance of UBW in target buildings through, among others, the **Blitz UBW Clearance (BUC) Operation** and to rectify identified building dilapidations including drainage defects in one go.



◆ 12,292 removal orders related to UBW were issued and 13,581 UBW were removed or irregularities rectified.

*Before*



*After*

(b) To continue the **Clearance Operation of UBW in buildings along Pedestrian Streets (COUPS)** against unauthorized large glass panels, advertisement signboards and TV displays on the external walls.



◆ In 2012, we continued to take follow-up enforcement actions of the outstanding orders issued against large unauthorized glass panels, advertisement signboards and TV displays on the external wall of 393 target buildings under COUPS in the preceding years.

◆ At the end of 2012, majority of these orders had been complied with. We would continue to step up efforts in clearing the remaining 84 outstanding orders.

Targets	Performance in 2012
<ul style="list-style-type: none"> <li>● <b>Clearance Operation on Unauthorized Roof Structures Ensemble (COURSE)</b></li> </ul> <p>To continue the COURSE operation to assist building owners to improve the conditions of their industrial buildings by carrying out clearance of UBWs on rooftops, flat roofs, yards and lanes constituting safety hazard or environmental nuisance.</p> <p>To launch another COURSE operation since 1st April 2011 on the clearance of UBWs on rooftops, flat roofs, yards and lanes of 500 target domestic/composite buildings per year, as part of our new building safety initiatives.</p>	<ul style="list-style-type: none"> <li>◆ In 2012, 350 domestic/composite buildings aged 30 years or above were targeted in the operation. Since the launch of the operation in late 2009 and up to the end of 2012, 810 industrial buildings and 721 domestic/composite buildings had been targeted with a total of 7,945 removal orders and 32 repair/investigation orders issued. Among these orders, 1,447 had been complied with.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Improving fire safety measures in certain existing buildings and premises</b></li> </ul> <p>To improve the existing fire safety measures in <b>prescribed commercial premises</b>, (i.e. banks, off course betting centres, jewellery shops, supermarkets and shopping arcades), as well as <b>pre-1987 commercial buildings and composite buildings</b>.</p>	<ul style="list-style-type: none"> <li>◆ 150 prescribed commercial premises, 40 specified commercial buildings and 1,150 composite buildings were inspected for enforcement action under the Fire Safety (Commercial Premises) Ordinance Cap. 502 and the Fire Safety (Buildings) Ordinance Cap. 572.</li> <li>◆ A total of 7,103 fire safety directions were issued to require improvement of the fire safety construction in such premises/buildings to current standards.</li> </ul>

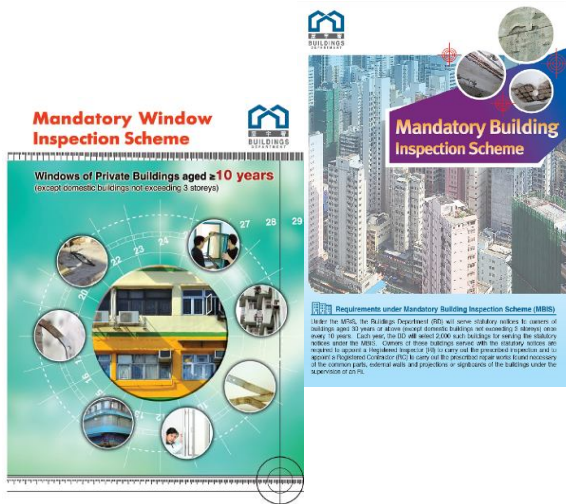


Targets	Performance in 2012
<ul style="list-style-type: none"> <li>● <b>Establishing long-term measures to tackle building maintenance problems</b></li> </ul> <p>To tackle the building maintenance problems in buildings aged 30 or above, the Mandatory Building Inspection Scheme (MBIS) commenced in 2012, while Coordinated Maintenance of Buildings Scheme (CMBS) will cease after the full implementation of the MBIS.</p> <p>To tackle the building maintenance problems in buildings aged below 30 years, an operation “<b>Repair or Investigation of Buildings, for Enhancement, with Age Under Thirty Years (REIN-BEAUTY)</b>” was launched in April 2011. The operation would include enforcement action on actionable UBWs identified during the inspections.</p>	<ul style="list-style-type: none"> <li>◆ In 2012, the Buildings Department, in collaboration with six other government departments, continued to assist owners and owners’ corporations of the target buildings of the CMBS commenced in previous years in carrying out the outstanding building maintenance and improvement works.</li> <li>◆ In 2012, we targeted 500 dilapidated buildings aged below 30 years for inspections and issue of repair/investigation orders under “REIN-BEAUTY”.</li> </ul>
<ul style="list-style-type: none"> <li>● <b>Providing financial assistance to building owners</b></li> </ul> <p>To continue administering the <b>Building Safety Loan Scheme</b> 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"> <li>◆ A total amount of loan of HK\$ 90.1M was committed in 2012.</li> </ul> <div data-bbox="916 1442 1369 1742" data-label="Image"> </div>

Targets	Performance in 2012
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- **Mandating building inspection and maintenance**

To continue working out the implementation details of the **Mandatory Building Inspection Scheme (MBIS)** and the **Mandatory Window Inspection Scheme (MWIS)** and fully implement the schemes in the 2<sup>nd</sup> quarter of 2012.



- ◆ Full implementation of the Mandatory Building Inspection Scheme (MBIS) and Mandatory Window Inspection Scheme (MWIS) commenced on 30 June 2012.
- ◆ General Guidelines and pamphlets on MBIS and MWIS were issued in June 2012.
- ◆ The final version of the Code of Practice and the Practice Notes for Mandatory Building and Window Inspection Scheme were issued in December 2012.
- ◆ As at 31 December 2012, 459 applications for registration as registered inspectors under the Buildings Ordinance were received of which 315 were accepted.
- ◆ 949 and 2,823 buildings were targeted for implementation of MBIS and MWIS respectively.
- ◆ Pre-notification letters to owners of the targeted buildings had been issued and the issue of statutory notices under the MWIS had commenced by end of 2012.
- ◆ We conducted 33 briefing sessions in various districts for the owners of the targeted buildings with the participation of URA/HKHS to explain the details of the two schemes and the assistance packages available to building owners.



- ***Operation Building Bright (OBB)***

To assist owners of target dilapidated buildings who are having difficulties in coordinating repair works, the Buildings Department 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.

- ***Removal of abandoned/dangerous signboards***

To continue the enforcement action against abandoned/dangerous signboards.

◆ In 2012, we continued to engage consultants and contractors to carry out repair works for 241 OBB target buildings in default of the owners. Since the launching of the Operation, we have engaged consultants and contractors to carry out repair works in default of the owners for 874 target buildings and the repair works for 508 of them have been completed.

◆ In 2012, we removed/ repaired a total of 1,309 abandoned/dangerous signboards.

# CHAPTER 2

## 2.2 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 fulfill the commitments set out in the Clean Air Charter to make sustained improvement to air quality.

### 2.2.1 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 fulfill the six commitments in the Charter to implement environmentally friendly measures in our daily operations.

Commitments	Performance in 2012
<b>(1) Operate by a recognized world class standard, or the standards established by the Hong Kong/Guangdong governments on emission of air pollutants.</b>	◆ In our operation, we continued to observe and comply with the ordinances and regulations on environmental protection related to our operation, where applicable.
<b>(2) Use continuous emissions monitors at significant sources.</b>	◆ This commitment was not applicable to our operation which was mainly office-based and would not generate significant air emission.
<b>(3) Publish information on energy and fuel use, as well as total emission of air pollutants annually and timely, if emissions are significant.</b>	◆ The source of energy and fuel consumption related to our operation included the <b>Use of Electricity</b> and <b>Vehicle Fleet</b> . Such sources produce air pollutant emission of sulphur dioxide (SO <sub>2</sub> ), nitrogen oxides (NO <sub>x</sub> ) and respirable suspended particulates (RSP).  ◆ Our total electricity consumption in 2012 was 2,969,988 kWh, which was 131,049 kWh or 4.62% more than that consumed in 2011. The main reason for the rise was due to the increase in the number of office premises under the department in response to its manpower growth of 9.6%.

Commitments	Performance in 2012
	<p><b>Estimation of the air pollutant emission:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><b>SO<sub>2</sub></b> <b>5,673 kg</b></p> </div> <div style="text-align: center;"> <p><b>NO<sub>x</sub></b> <b>3,445kg</b></p> </div> <div style="text-align: center;"> <p><b>RSP</b> <b>178 kg</b></p> </div> </div> <p>◆ We owned a fleet of 31 vehicles and 6 of them were Hybrid Electric Vehicles. The 31 vehicles travelled 376,298 km in 2012 and the total fuel consumption was 43,504.16 litres of petroleum. The consumption of fuel per km was 1.96% more than that in 2011.</p> <p><b>Estimation of the air pollutant emission:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p><b>NO<sub>x</sub></b> <b>339 kg</b></p> </div> <div style="text-align: center;"> <p><b>RSP</b> <b>Negligible</b></p> </div> </div>
<p><b>(4) Undertake to adopt energy-efficient measures in our operations.</b></p>	<p>◆ We continued to adopt the following energy-efficient measures in our office-based and transportation operation to minimize energy consumption through:</p> <ul style="list-style-type: none"> <li>– Maintaining the air-conditioning temperature at 25.5°C and monitoring the room temperature regularly.</li> <li>– Encouraging our staff to dress casual and smart in summers and lightly in winters to minimize the use of air-conditioning.</li> <li>– Installing high output, energy-saving lighting fixtures (T5 fluorescent lamps) in our offices.</li> <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> <li>– Enabling the hibernation mode or standby mode setting of office equipment and turning them off when they were not in use.</li> </ul>

# CHAPTER 2

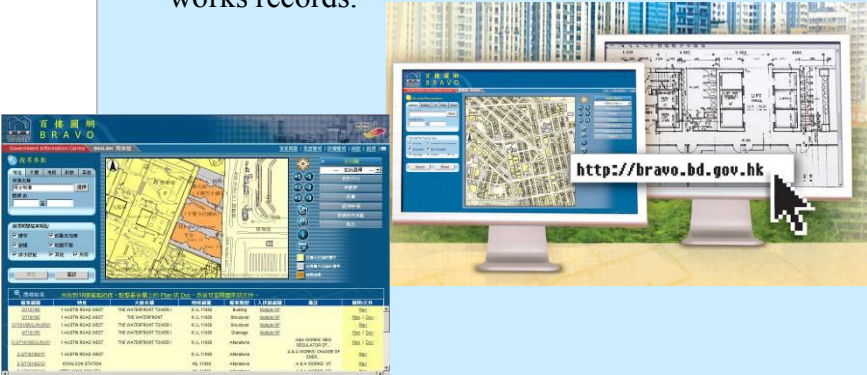
Commitments	Performance in 2012
	<ul style="list-style-type: none"> <li>- Appointing energy wardens in all divisions to ensure implementation of energy saving measures and arranging last-man-out to check and turn off all air-conditioning, lighting and office equipment.</li> <li>- Adopting other energy saving practices such as encouraging our staff to use staircase for inter-floor traffic, controlling the use of personal electrical appliances in office, and circulating guidelines on energy saving and green tips.</li> <li>- Encouraging our staff to walk or use public transport whenever possible.</li> <li>- Sharing the use of pool car in order to fully utilize each government vehicle.</li> <li>- Reminding motor drivers to switch off idling engines in compliance with the Motor Vehicles Idling (Fixed Penalty) Ordinance.</li> <li>- Requesting motor drivers to drive at a steady speed and avoid sudden braking.</li> </ul>
<p><b>(5) Identify and encourage business-relevant measures to be taken in days when air pollution is high.</b></p>	<ul style="list-style-type: none"> <li>◆ We continued to encourage our staff to adopt the following measures in our general office and transportation operation:               <ul style="list-style-type: none"> <li>- Sharing pool car or using public transport where possible.</li> <li>- Combining trips to maximize the use of departmental vehicles and plan routes to minimize the journey distance and time.</li> <li>- Avoiding the use of products with high Volatile Organic Compound (VOC) content by incorporating such requirements in procurement contracts..</li> </ul> </li> </ul>
<p><b>(6) Share air quality expertise in business with others.</b></p>	<ul style="list-style-type: none"> <li>◆ 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.</li> </ul>

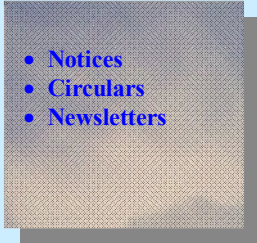
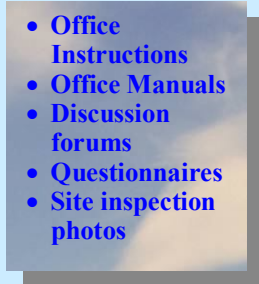
## 2.2.2 Moving towards a Paperless Office

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

Targets	Performance in 2012			
<ul style="list-style-type: none"> <li>● <b>On public front</b></li> <li>(a) To disseminate information to the stakeholder and the public via <b>the Buildings Department's website</b> as a communication platform.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Our website continued to provide information on the functions and services of the Department including among others, the following:               <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="text-align: center; vertical-align: top;"> <b>Publications</b> <ul style="list-style-type: none"> <li>• Monthly Digest</li> <li>• Codes of Practice &amp; Design Manual</li> <li>• Practice Notes &amp; Circular Letters for AP/RSE/RGE/RI/RC</li> </ul> </td> <td style="text-align: center; vertical-align: top;"> <b>Notices</b> <ul style="list-style-type: none"> <li>• Consultancy and Contract Tender Notices</li> <li>• Recruitment</li> </ul> </td> <td style="text-align: center; vertical-align: top;"> <b>Publicity</b> <ul style="list-style-type: none"> <li>• Pamphlets</li> <li>• Press Release</li> <li>• TV Announcements of Public Interest</li> </ul> </td> </tr> </table> </li> <li>◆ To put Green Culture in action, we have prepared an "e-Briefcase" containing electronic format of all PNAPs and other useful materials for dissemination to Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (AP/RSE/RGE).</li> <li>◆ We continued to inform all AP/RSE/RGE, Registered Inspectors (RI) and Registered Contractors (RC) via email of any new/ revised Code of Practice, design Manual, PNAPs/ PNRCs/ PNBI and/ or circular letters which can be downloaded from our web-site.</li> <li>◆ Distributing hardcopies of PNRCs and circular letters were ceased in 2012, e-notification in the form of e-mail or Short Message Service (SMS) were used to notify all RC of new/revised PNRCs or circular letters issued.</li> </ul>	<b>Publications</b> <ul style="list-style-type: none"> <li>• Monthly Digest</li> <li>• Codes of Practice &amp; Design Manual</li> <li>• Practice Notes &amp; Circular Letters for AP/RSE/RGE/RI/RC</li> </ul>	<b>Notices</b> <ul style="list-style-type: none"> <li>• Consultancy and Contract Tender Notices</li> <li>• Recruitment</li> </ul>	<b>Publicity</b> <ul style="list-style-type: none"> <li>• Pamphlets</li> <li>• Press Release</li> <li>• TV Announcements of Public Interest</li> </ul>
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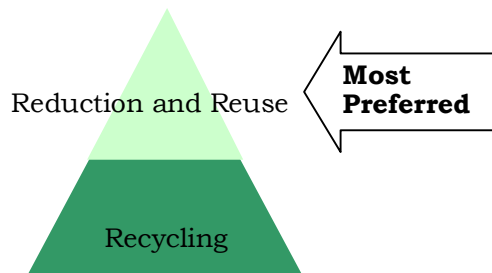


Targets	Performance in 2012
<p>(b) To simplify the viewing and copying of building records through the implementation of Buildings Records Access and Viewing On-line (BRAVO) system over the Internet.</p>	<ul style="list-style-type: none"> <li>◆ The BRAVO system offers round-the-clock service which allows members of public to view building records through the Internet at anytime and anywhere in Hong Kong.</li> <li>◆ In 2012, we handled 89,300 applications for viewing electronic records, out of which 62,300 were processed by the BRAVO system over the Internet</li> <li>◆ The BRAVO system was further enhanced in 2012 to provide the viewing and copying services for minor works records.</li> </ul> 
<p>(c) To accept submission of documents in electronic format.</p>	<ul style="list-style-type: none"> <li>◆ By virtue of the Electronic Transactions Ordinance, we continued to accept simple electronic submissions under the BO through our e-Counter.</li> <li>◆ We started a feasibility study in 2012 on the implementation of an Electronic Submission System, with a view to evaluating the possibility of extending the scope of electronic submissions to plans and documents, etc.. Depending on the findings of the feasibility study, the scope of electronic submission to the Buildings Department may be extended in future.</li> </ul>

Targets	Performance in 2012
<ul style="list-style-type: none"> <li>• <b><i>In our work place</i></b></li> </ul> <p>(a) To disseminate information and to introduce more green measures through increasing usage of LAN as a communication platform.</p>	<p>◆ 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 upgraded to provide advance functions to improve collaboration of work via the email network. A web-based photo library system was also launched to facilitate the sharing of site inspection photos among sections/units for better co-ordination of work.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="778 900 1114 936" style="text-align: center;"> <p><b>Electronic Notice Board</b></p>  </div> <div data-bbox="1225 900 1359 936" style="text-align: center;"> <p><b>Our LAN</b></p>  </div> </div>
<p>(b) To implement the Accessibility Program to provide all staff with email address.</p>	<p>◆ All our staff were provided with email addresses for communication. More e-services were hosted in 2012 in the Departmental Portal and the LAN Link speed would be upgraded to further improve the efficiency for dissemination of information. As invited by OCGIO, we commenced preparation in 2012 for Open Source Departmental Portal Solution to be implemented in 2013 to improve the stability and efficiency of the Departmental Portal with more e-services and single-sign-on functionalities.</p>

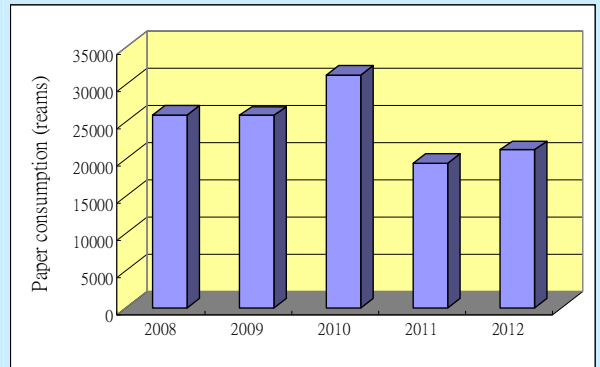
Targets	Performance in 2012
(c) To implement the electronic leave system (e-Leave)	<ul style="list-style-type: none"> <li>◆ E-Leave continued to provide speedy and paperless leave application and processing services for all our staff.</li> </ul>
(d) Green Management of Data Centre and Green IT Measures	<ul style="list-style-type: none"> <li>◆ Server virtualization technology was used to reduce the no of physical servers required thereby cutting down electricity power consumption.</li> <li>◆ Unless overridden by users still working in the office, their computers were turned off automatically at a preset time to reduce unnecessary power consumption.</li> <li>◆ All new printers are equipped with EcoPrint or Energy Saving Mode with Duplex Printing feature</li> <li>◆ All Servers and Desktop Personal Computers are Energy Star Compliant</li> <li>◆ Network backup has been used to gradually replace manual backup thereby reducing transportation and storage of tapes</li> <li>◆ Electronic devices are provided to Chief Officers and above to facilitate paperless meetings</li> <li>◆ Notifications to registered professionals and contractors are made via bulk SMS and emails instead of paper</li> </ul>
(e) Electronic Information Management Strategy Study and Electronic Document Management System	<ul style="list-style-type: none"> <li>◆ We invited the Efficiency Unit to conduct an Electronic Information Management Strategy Study to be commenced in mid 2013. 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.</li> </ul>

## 2.2.3 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 minimize waste produced from our office operation. The Buildings Department Administration Circular on “Green Practices and Waste Avoidance” was issued in October 2012 to remind 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 2012
<p><b>Reduction</b></p>	<ul style="list-style-type: none"> <li>◆ Our total paper consumption in 2012 was 21,194 reams, which was 9.1% more than that in 2011. The increase was mainly due to the launching of some operations and publicity activities.</li> <li>◆ We reduced the use of paper by:                             <ul style="list-style-type: none"> <li>– Adopting double-sided printing and photocopying.</li> <li>– Using emails instead of paper memos and faxes for internal and external communications.</li> <li>– Minimizing the production of hardcopies of documents.</li> <li>– Sending e-cards.</li> </ul> </li> <li>◆ Recycled paper in lieu of virgin paper had continuously been used in the Department. In 2012, 46.17% of the total amount of paper consumed was recycled paper.</li> </ul>
<p><b>Reuse</b></p>	<ul style="list-style-type: none"> <li>◆ We promoted the reuse of resources by:                             <ul style="list-style-type: none"> <li>– Encouraging our staff to use 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 paper with a blank side near high paper usage equipment e.g. photocopying machines, to facilitate reuse.</li> </ul> </li> <li>◆ A total of 745,400 nos. of envelopes were consumed in 2012 which was 15.2% lower than that consumed in 2011.</li> </ul>

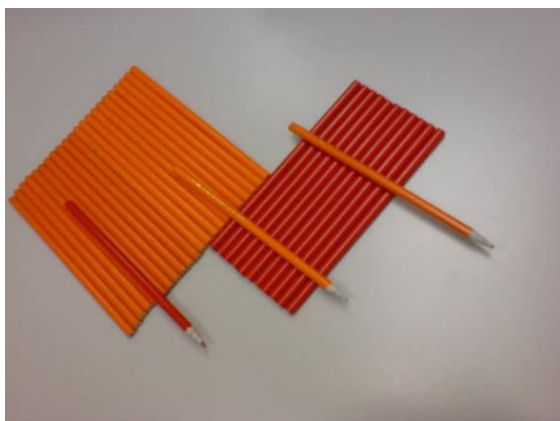


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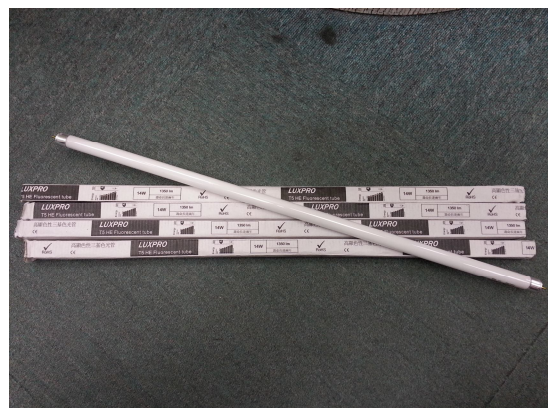
Targets	Performance in 2012
<p><b>Recycling</b></p>	<ul style="list-style-type: none"> <li>◆ We collected recyclable waste materials by:                             <ul style="list-style-type: none"> <li>– Placing collection bags in offices for recycling of waste paper.</li> <li>– Placing recycling boxes near high paper usage equipment in our workplaces.</li> <li>– Requesting our staff to return used printer cartridges to the Supplies Unit.</li> </ul> </li> </ul>
<div style="display: flex; justify-content: space-around;">   </div>	
<ul style="list-style-type: none"> <li>◆ With the support from our staff, we collected a total of 40,020 kg waste paper and 2,297 units of used printer cartridges for recycling in 2012.</li> </ul>	

## 2.2.4 Procuring Green Products

We purchased green products to save the Earth and also to support the recycling industry.



Pencils made of recycled materials



T5 Fluorescent tube



Recycled paper



Rechargeable batteries



## 2.2.5 Office Relocation Exercise

Targets	Performance in 2012
<p>To take forward a relocation exercise for the Buildings Department offices aiming to enhance the operational efficiency and effectiveness and to promote a greener office as a whole</p>	<p>◆ Currently, our offices were dispersed in 7 different buildings in Mongkok, Yaumatei, Kwun Tong and Kwai Fong. A review on the office accommodation was conducted with the aims of enhancing coherence and communication amongst staff, and reducing file movement and paper consumption. A relocation exercise was carried out in phases with the first phase commenced in May 2012.</p>

## 2.2.6 Knowledge Management System

Targets	Performance in 2012
<p>To develop a knowledge management system for better sharing of information and knowledge</p>	<p>◆ We established a working group to recommend the detailed arrangements for setting up its knowledge management system. We also commissioned the Efficiency Unit to conduct a pilot knowledge management study for the New Buildings Divisions of the department for planning and developing the knowledge management strategy. As short-term measures for sharing of information and knowledge, we started preparation works to set up a 'Knowledge Hub' database under the Lotus Notes platform to centrally store the knowledge-based information.</p>

## 2.3. 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.

### 2.3.1. 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 was established in April 2011 to promote and publicize the current and new building safety initiatives and educate the stakeholders.

Target	Performance in 2012
<p>To promote and publicize 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>	<ul style="list-style-type: none"> <li>◆ Organized 36 talks for students of primary schools and secondary schools.                             <div data-bbox="722 1050 1375 1480" data-label="Image"> </div> </li> <li>◆ Organized 109 talks for Owners' Corporations, building owners, property management companies and stakeholders in the industry.                             <div data-bbox="722 1650 1375 2080" data-label="Image"> </div> </li> </ul>

- ◆ Participating in carnivals at various districts.



## 2.3.2. Training our Staff

Our training and development programme places 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 “Improving Hong Kong’s Air Quality” and “Water Reduction and Recycling” in November 2012 to equip our staff with useful knowledge and practical tips which helped raised their awareness and facilitate developing good habits on environmental protection.

51 nos. of our professional officers attended the BEAM Professionals (BEAM Pro) Training organized by The Hong Kong Green Building Council (HKGBC) in 2012 and most of them became accredited BEAM Pro. 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 2012
<p>To provide more than 500 training man-days on topics related to green building, sustainability and building repairs in 2012.</p>	<ul style="list-style-type: none"> <li>◆ 42 local seminars / courses / conferences on environmental issues and building repairs were arranged to provide 506 training man-days. 2 site visits to environmentally friendly and innovative buildings were organized to provide 48 training man-days. 2 overseas duty visits were made for attending international conferences on sustainable and innovative buildings.</li> </ul>



## WAY FORWARD

With the implementation of the Mandatory Building Inspection Scheme and the Mandatory Window Inspection Scheme, we set the legal framework for initiating timely maintenance by building owners to tackle building neglect problems in our old building stock.

We look forward to the implementation of the Validation Scheme for Unauthorised Signboards under the Signboard Control System in 2013 for further fostering of a safe and sustainable built environment for our next generations.

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

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

**Hotline :** 2626 1616 (Our hotline is handled by “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](http://www.bd.gov.hk/english/documents/index_env.html)(English version) or**

**[http://www.bd.gov.hk/chineseT/documents/index\\_env.html](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.