

# Buildings Department Controlling Officer's Environmental Report



2005

<b>Foreword</b>	<b>1</b>
<b>I. Buildings Department and the Environment</b>	
Organization Chart	2
Management Commitment	3
<b>II. Environmental Performance Analysis and Future Targets</b>	
<b>A. Promoting a Sustainable Built Environment</b>	
1. Modernizing the Legislation	4
2. Promoting Environmentally Friendly Buildings	6
3. Sustainable Building Developments	7
4. Reducing Construction and Demolition Wastes	8
5. Enhancing Environmental Hygiene	9
6. Timely Maintenance and Building Repair	11
<b>B. Implementation of Green Office Management</b>	
1. Minimizing Energy Consumption	13
2. Moving towards a Paperless Office	14
3. Saving Resources	15
<b>C. Education and Training</b>	
1. Educating the Public on Sustainability	16
2. Training our Staff	17
<b>III. Way Forward</b>	<b>18</b>



## Foreword

I am pleased to present our seventh Environmental Report covering the period from 1 January 2005 to 31 December 2005.

The Report continues to serve as a scorecard of our progress and performance in achieving the targets and objectives set out pursuant to our environmental commitments. Through such evaluation, we aim at developing an insight for future challenges.

This year, we revamped the format of the Report to make it more concise and compact, in other words, more environmentally friendly. We also expanded its coverage to our work over existing buildings, reporting our efforts on timely maintenance and our move towards achieving a sustainable built environment.

I hope you will find this new look and direction of the Report informative and interesting.

2005 was a busy yet fruitful year for us. To enhance timely maintenance of existing private buildings, we worked in partnership with both government bodies such as the Home Affairs Department and Fire Services Department, as well as non-government organizations, including the Hong Kong Housing Society and Urban Renewal Authority to provide building owners with a comprehensive network assistance to carry out proper building management and maintenance.



Our hard work has not gone unnoticed. Our “Coordinated Maintenance of Buildings Scheme” won the Partnership Award of the Civil Service Outstanding Service Award Scheme 2005. It is not only a great honour, but also a true recognition of our initiatives and professionalism in resolving the hardcore problems in building maintenance.

We also won the Grand Award of the Ombudsman Awards 2005 for our performance in handling public complaints.

We all understand that our challenge for the future is onerous. Let’s work hand in hand to strive for a sustainable and quality living environment for the community and the future generation.

CHEUNG Hau-wai, JP  
Director of Buildings

努力不懈 突破目標  
*We Go the Extra Mile*

## I. Buildings Department and the Environment

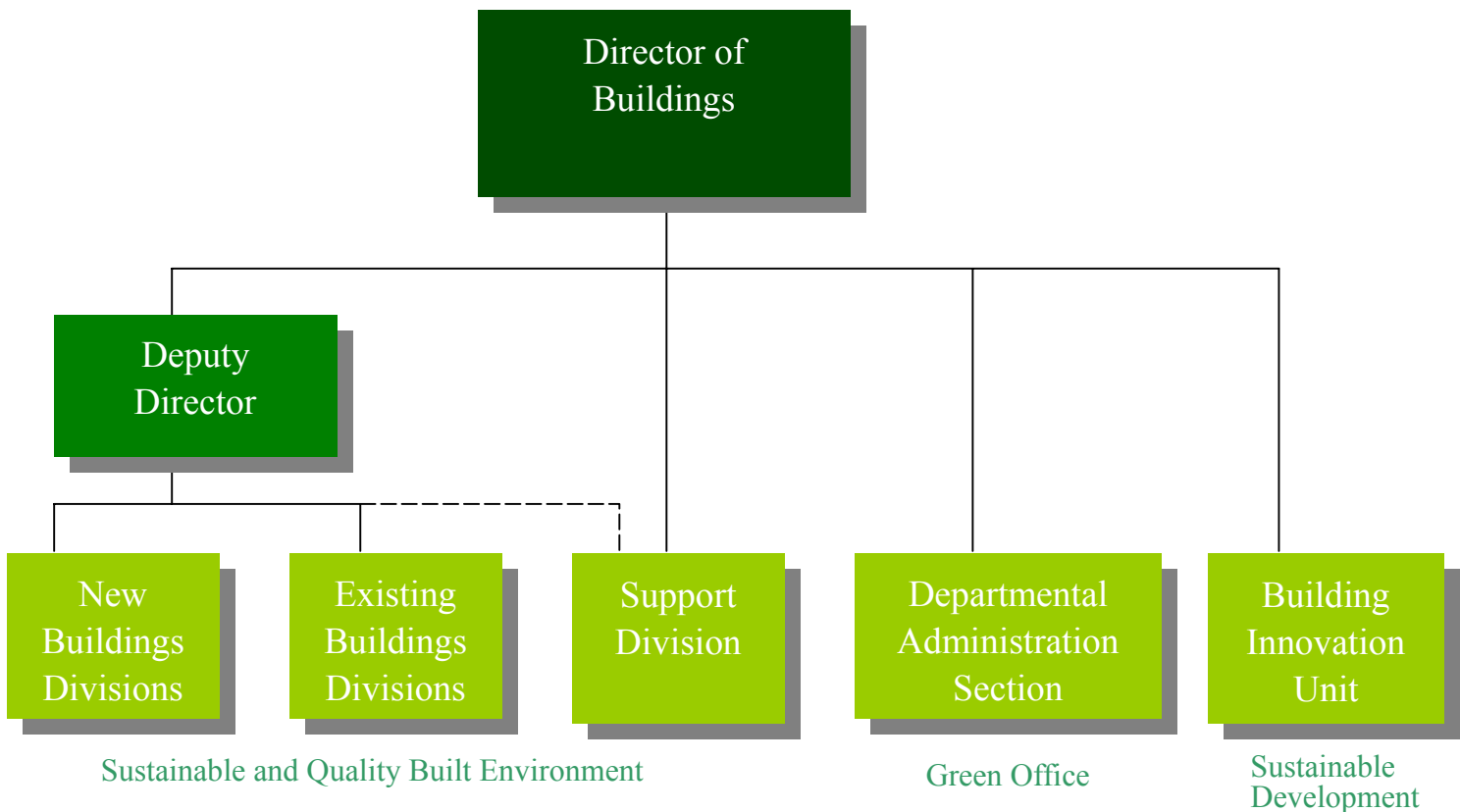
The Buildings Department (BD) takes a proactive role in supporting the Government's objective of achieving a sustainable environment in Hong Kong. Our vision and mission outline our long-term strategy in pursuit of sustainability.

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

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

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

### Organization Chart



## Management Commitment

Through administering and enforcing the Buildings Ordinance, we have the responsibility to promote building safety, to set and enforce building standards as well as to improve the quality of private building developments. We are committed to:

- (a) taking a leading role in and advocating a joint effort with the building industry and other government departments or agencies to promote a sustainable built environment in Hong Kong;
- (b) implementing good practices of green management in our workplace; and
- (c) raising the awareness of both the public and our staff of the importance of a sustainable environment in our community.

In 2005, we carried out the following major activities which have contributed to a sustainable built environment:

- Conducting review of the legislations and standards for improving the living environment;
- Promoting environmentally friendly buildings by advocating the adoption of green features and benchmarking green buildings;
- Taking forward the government's initiatives in enhancing sustainable building design;
- Enhancing environmental hygiene through rectification of drainage defects and handling of water seepage complaints;
- Promoting timely maintenance and building repair to address the building neglect problems;
- Adopting various green measures in office management;
- Educating the public on the importance of sustainable living environment and engaging them in formulating the strategy; and
- Organizing training programmes to equip our staff for their role and awareness for sustainable development.

The following chapters provide an overview of the above activities, their environmental performance in 2005 and the future targets as well as our way forward.

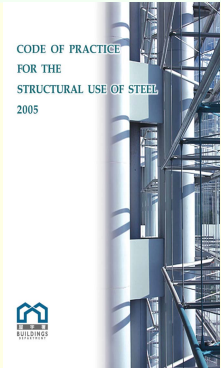

## II ENVIRONMENTAL PERFORMANCE ANALYSIS AND FUTURE TARGETS

### A. PROMOTING A SUSTAINABLE BUILT ENVIRONMENT

#### 1. Modernizing the Legislation

A comprehensive review of the Buildings Ordinance (BO) and the subsidiary legislation began in 2000 and continued in 2005 aiming to (i) facilitate environmentally friendly and responsive building design; (ii) modernize a series of building standards to encourage more efficient and economic use of building materials, and to achieve more rational and economical design.

#### Review of the Buildings Ordinance

Targets	Performance in 2005
<p>To carry out a comprehensive review of the BO including the provision of performance-based requirements in addition to the prescriptive standards, where appropriate, under the Building (Planning) Regulations and the Building (Construction) Regulations.</p>	<p>✓ We continued to review the fire safety standards in buildings and related codes of practices for the preparation of a draft performance-based Fire Code.</p>
<p>To issue a code of practice on the use of steel for buildings which enables more efficient and rational design, as well as economical and optimum use of building materials.</p>	<p>✓ The Code of Practice on Structural Use of Steel Using Limit State Approach 2005 was issued.</p> 
<p>To review the supervision plan system aiming to integrate the safety and quality aspects of supervision thus enabling more efficient site supervision, better use of resources as well as minimizing documentation.</p>	<p>✓ The Technical Memorandum for Supervision Plans 2005 and the Code of Practice for Site Supervision 2005 were issued.</p> 

	Targets	Performance in 2005
Review of the Buildings Ordinance (Cont'd)	To introduce a control regime for ensuring safety and quality of building works involving geotechnical elements.	✓ The provisions relating to the appointment of Registered Geotechnical Engineers (RGE) for the geotechnical elements of building works and the statutory duties and responsibilities of the RGE so appointed under the Building (Amendment) Ordinance 2004 came into operation on 31.12.2005.
Review of Lighting and Ventilation Requirements for Buildings	To establish a new set of the performance standards for provision of lighting and ventilation in buildings.  <b>Aim:</b> To adequately protect the health of occupants and to ensure satisfactory indoor environment for buildings in Hong Kong.	✓ Practice Note for Authorized Persons & Registered Structural Engineers (PNAP) 278 was first issued in 2003 to promulgate performance standards as an alternative to the prescriptive requirements set out in the Building (Planning) Regulations. As a continuous exercise, guidance notes on the application of computational lighting simulation was issued as an appendix to PNAP 278 in June 2005.
Review of Sanitary Fitments, Plumbing and Drainage Provisions for Buildings	A consultancy study has been commissioned to review the current plumbing and drainage standards for private buildings.  <b>Aim:</b> To take cognizance of the built environment, environmental and material conservation, as well as environmental science and technologies.	<ul style="list-style-type: none"> <li>✓ Ongoing. To take forward the consultant's recommendation on some issues which have reached consensus with stakeholders. PNAP 297 promulgating the new requirements on the provisions of sanitary fitments in offices, shopping arcades and department stores, places of public entertainment and cinemas, was issued in May 2005.</li> <li>✓ Further consultation on the refined recommendation with various concerned groups were conducted.</li> </ul>
Review of the Provision of Barrier Free Access for Buildings	A consultancy study has been commissioned to amend the relevant building regulations and the extant design manual.  <b>Aim:</b> (i) To update the design requirements on the provision of facilities for persons with a disability; and (ii) to address the specific needs of the elderly to provide a safe and elderly-friendly living environment.	✓ Ongoing. Consultation with stakeholders on the revised draft Design Manual : Barrier Free Access, was conducted.

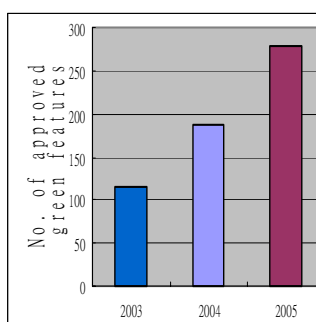


## 2. Promoting Environmentally Friendly Buildings

The Building Innovation Unit (BIU) is tasked to conduct research and make recommendations on way to promote the construction of environmentally friendly buildings.

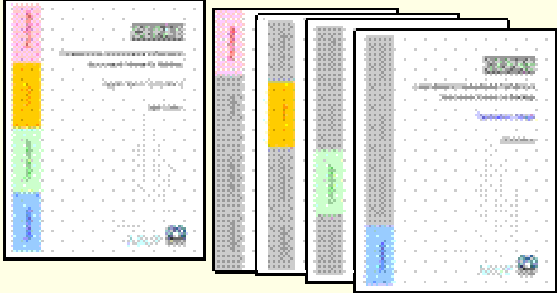
To advocate wider adoption of green features in building developments in a bid to (i) minimize the energy consumption, construction and demolition wastes; and (ii) to maximize the use of natural renewable resources and recycled building materials

Targets	Performance in 2005
To promote environmentally friendly construction in private building development.	✓ Since the issue of the first Joint Practice Note in 2001 till end of 2005, a total of 278 building projects with one or more green features were approved by BD.
To monitor the implementation of Joint Practice Notes (JPN) 1 & 2 which were jointly issued by BD, PlanD and LandsD in 2001 & 2002 aiming to promote green and innovative buildings.	✓ An interdepartmental working group was set up to review the effectiveness of the incentives for the provision of green features promulgated in JPN 1 & 2, and to formulate the way forward in promoting the construction of green and environmentally friendly buildings.





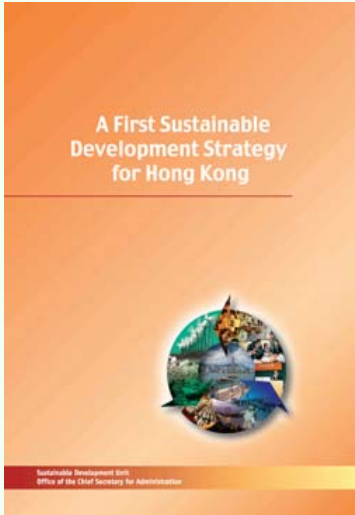
**Benchmarking green buildings to provide impetus to the promotion of green buildings and to find ways to entice the industry and building owners to upgrade the environmental performance of buildings**

Target	Performance in 2005
<p>A consultancy study has been commissioned to devise a green building labeling scheme namely, Comprehensive Environmental Performance Assessment Scheme (CEPAS) for both new and existing buildings as a means of using market force to promote environmentally friendly buildings.</p> 	<p>✓ The consultancy study on the development of CEPAS was completed. The findings and recommendation from the consultant was referred to the Provisional Construction Industry Co-ordination Board for forging consensus on a model of building environmental assessment scheme suitable for industry-wide application.</p>

### 3. Sustainable Building Developments

In 2005, the Sustainable Development Unit under the Office of the Chief Secretary for Administration issued the document "A First Sustainable Development Strategy for Hong Kong (2005)". One of the key initiatives recommended was to consider further enhancing sustainable building design guidelines. BD was tasked to take forward this initiative.

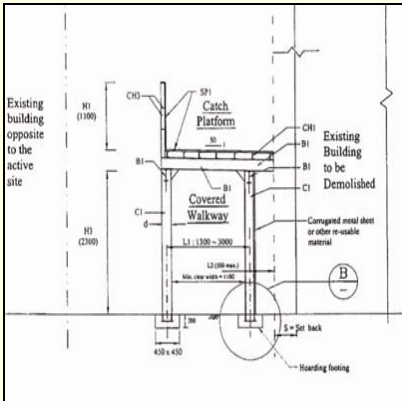
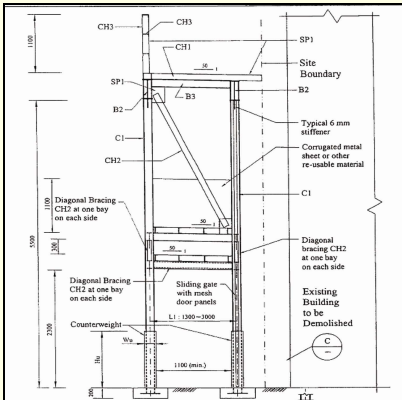
**To review the effectiveness of measures to promote sustainable building design features and to consider further enhancing sustainable building design guidelines**

Target	Performance in 2005
<p>To commission a consultancy study to promote the adoption of building design that supports sustainable urban living space and to develop the corresponding sustainable building design guidelines.</p> <p>The consultancy study will include the generic sustainable urban living space issues that the new building design should address including among others, mitigating urban heat island, promoting better urban air ventilation and urban greenery.</p>	<p>✓ Preparation and finalization of the tendering formalities for the consultancy study was in progress.</p> 

## 4. Reducing Construction and Demolition Wastes

Continue to review the current building and construction practices to find ways in reducing construction and demolition wastes.

**To minimize the wastes generated from the construction and demolition sites**

Targets	Performance in 2005
<p>To revise PNAP 71 on Demolition Works – Measures for Public Safety to promulgate the adoption of more economical design with recycled materials.</p>	<p>✓ The revised practice note was issued.</p>  
<p>To revise PNAP 54 on Cinemas in Non-domestic Buildings or Composite Buildings such that the installation of cinema seats prior to the issue of Occupation Permit is not required.</p>	<p>✓ The revised practice note was issued.</p>
<p>To issue a practice note on quality control of precast concrete construction in order to encourage the industry to widely adopt this environmentally friendly construction method.</p>	<p>✓ The practice note was at the drafting stage.</p>


## 5. Enhancing Environmental Hygiene

The outbreak of the SARS in 2003 has heightened the public concerns on the possible dire consequences of building neglect and the perennial environmental hygiene problems. In response, BD, as a core member of Team Clean, has conducted a territory-wide survey to all private buildings on defective drains and participated in improving environmental conditions of some identified blackspots. Two dedicated working groups were tasked to work out practical proposals for enhancement of built environment and environmental hygiene.

	Targets	Performance in 2005
<b>Enhancing environmental hygiene</b>	To commission a consultancy study to review and to rationalize the building design requirements for improving the environmental hygiene.	✓ Preparatory work was in progress.
<b>Rectifying Drainage Defects</b>	<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> <p>To monitor the progress of the remaining rectification works by building owners on defective drains and removal of unauthorized building works (UBW) identified under the Hygiene Blackspots Clearance Programme.</p>	<p>✓ Eradication of target backlanes and hygiene blackspots involving 295 buildings under Phase III Team Clean Operation was commenced in early 2005. Under this operation, about 30 drainage defects and some 980 unauthorized building works were rectified and removed respectively. Drainage rectification works have been completed in which 980 cases were served with drainage repair orders or advisory letters</p>



**Handling  
Water  
Seepage  
problems**

Targets	Performance in 2005
<p>To carry out verification check on the condition of drainage system for buildings with voluntary inspection reports submitted by Owners' Corporations or Management Companies.</p>	<p>✓ Verification checks were completed. BD has taken follow-up actions on the cases with defects identified during the verification checks through the issue of drainage repair order or advisory letter.</p> 
<p>To provide one-stop service to members of the public in handling complaints on water seepage, BD partnered with FEHD to set up a Joint Office in Shamshuipo as a pilot scheme in December 2004.</p>	<p>✓ The results of the pilot scheme were encouraging. It was planned to extend the mode of operation of the Joint Office to the entire territory under a three-year programme.</p>
<p>To issue guidelines on good practice in preventive measures of water seepage to practitioners for reference.</p>	<p>✓ Circular letter to Authorized Persons, Registered Structural Engineers and Registered Contractors on the guidelines on prevention of water seepage in new buildings was issued on 7.3.2005.</p>

## 6. Timely Maintenance and Building Repair

Proper building management and timely maintenance of existing buildings are key factors contributing to a sustainable living environment, as the number of prematurely ageing buildings will be reduced, the overall life span of private buildings prolonged and the living environment improved. This is conducive to the sustainability principle of promoting a building care culture in the society. BD has taken on board large scale operations to tackle the unauthorized building works and to promote timely maintenance of existing buildings. BD also administers a building safety loan scheme to render financial assistance to the owners for carrying out the necessary maintenance and repair works. To address the building neglect problems, a mandatory building inspection scheme is proposed.

### To tackle UBWs

Targets	Performance in 2005
<p>BD has been taking vigorous enforcement action to tackle UBW through among others, launching Large Scale Operations such as the Blitz Operation for clearance of all unauthorized building works on the external walls of buildings at one go.</p>	<p>✓ On-going. No. of orders/warning notices related to UBWs issued: 27191 No. of unauthorized structures removed and irregularities rectified: 40365</p>
<p><b>Before</b></p> 	<p><b>After</b></p> 
<h3>To provide a comprehensive network of assistance to building owners to carry out proper building management and maintenance</h3> <p>In collaboration with six other government departments, BD continues to operate the Coordinated Maintenance of Buildings Scheme (CMBS) with a view to advising owners and owner's corporation of the comprehensive management and maintenance works required.</p>	<p>✓ In February 2005, the BD introduced a modified CMBS under which the Hong Kong Housing Society (HKHS) was invited to provide technical support to owners in carrying out the maintenance and repair works. This modified CMBS, achieving notable service enhancement through collaboration with other government departments and non-government body, won the Partnership Award of the Civil Service Outstanding Service Award Scheme 2005.</p>
	



To provide the necessary financial assistance to building owners

**Targets**

BD operates a Building Safety Loan Scheme to provide loans to private building owners for the carrying out of repair works or removal of unauthorized building works.

**Performance in 2005**

- ✓ A total amount of \$ 66.6M was committed.



Public consultation on building management and maintenance

Public consultation on the building management and maintenance was first conducted by the Housing, Planning and Lands Bureau in 2003/2004 with a view to working out the implementation details of the mandatory building inspection scheme (MBIS).

- ✓ In January 2005, the report of the first stage public consultation was released.
- ✓ In October 2005, the 2<sup>nd</sup> stage public consultation on Building Management and Maintenance was launched to seek public views on the implementation details of the proposed MBIS and related issues.







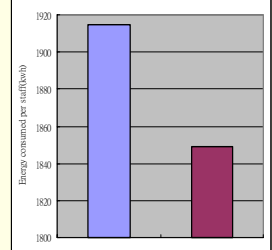


## B. IMPLEMENTATION OF GREEN OFFICE MANAGEMENT





### 1. Minimizing Energy Consumption

We have implemented a series of energy saving measures aiming to implement in-house green measures in the department and to enhance colleagues' awareness on green office management.

Targets	Performance in 2005							
<p>To minimize energy consumption by</p> <ul style="list-style-type: none"> <li>(i) using energy-efficient appliances and installations;</li> <li>(ii) adopting other energy saving measures; and</li> <li>(iii) issuing regular reminders to staff.</li> </ul>	<ul style="list-style-type: none"> <li>✓ High output energy saving lightings (T5 fluorescent tubes) were installed, which accounted for about 23% of the total fluorescent tubes in our office.</li> </ul>							
	<ul style="list-style-type: none"> <li>✓ “Energy Saving” stickers were affixed on the power switches to remind colleagues to switch off lights, air-conditioners and office equipment when not in use.</li> </ul>							
	<ul style="list-style-type: none"> <li>✓ Air-conditioning temperature was set at 25.5°C to save energy.</li> </ul>							
	<ul style="list-style-type: none"> <li>✓ Office equipment with “Energy Efficiency” label were procured to reduce electricity consumption.</li> </ul>							
	<ul style="list-style-type: none"> <li>✓ Energy wardens were appointed to remind colleagues of the energy saving measures.</li> </ul>	 <table border="1"> <caption>Energy consumed per staff (kWh)</caption> <thead> <tr> <th>Year</th> <th>Energy consumed per staff (kWh)</th> </tr> </thead> <tbody> <tr> <td>2004</td> <td>~1900</td> </tr> <tr> <td>2005</td> <td>1849</td> </tr> </tbody> </table>	Year	Energy consumed per staff (kWh)	2004	~1900	2005	1849
	Year	Energy consumed per staff (kWh)						
	2004	~1900						
2005	1849							
<ul style="list-style-type: none"> <li>✓ Colleagues were encouraged to set their computers to hibernation mode or standby mode during office hours.</li> </ul>								
<ul style="list-style-type: none"> <li>✓ Other energy saving measures were also taken, including encouraging staff to use staircase for inter-floor traffic, controlling the use of personal electric appliances in office and circulating guidelines on energy saving and other green tips, etc.</li> </ul>								
<ul style="list-style-type: none"> <li>✓ The energy consumption per staff was 1849 kWh in 2005.</li> </ul>								

## 2. Moving towards a Paperless Office

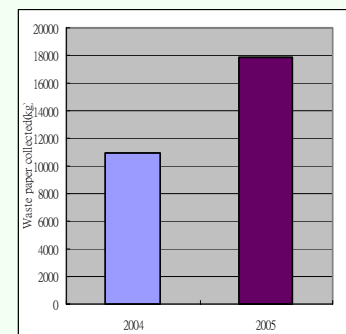
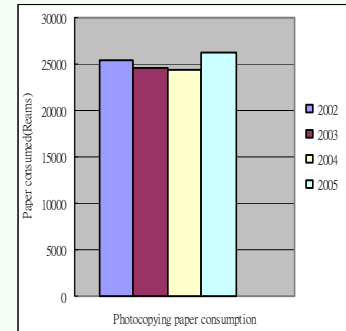
We are moving towards a paperless office by introducing computerized management systems and encouraging communication via electronic means.

Targets	Performance in 2005
<p>To make use of Information Technology for information dissemination.</p> <p>To introduce more greenhouse measures though increase in the use of LAN as a communication platform.</p>	<p>✓ On-going. Information were disseminated through electronic notice board, BD Local Area Network (LAN) as well as BD Website and via emails.</p> <p><b>Electronic Notice Board    BD's LAN    BD Website &amp; Emails</b></p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <ul style="list-style-type: none"> <li>Notices</li> <li>Circulars</li> <li>Newsletters</li> </ul> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <ul style="list-style-type: none"> <li>Office Instructions</li> <li>Office Manuals</li> <li>Minutes of Meetings etc</li> </ul> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <ul style="list-style-type: none"> <li>Practice Notes for AP/RSE/RGE/RC</li> </ul> </div> </div>
<p>To implement a computerized <b>Building Records Management System (BRMS)</b> for the electronic imaging, storage and retrieval of building records of all existing buildings kept by BD district by district.</p>	<p>✓ BRMS was extended to cover the entire Kowloon peninsula, Hong Kong Island and some districts in the New Territories.</p> <div style="display: flex; justify-content: space-around;">   </div>
<p>To implement <b>Training Administration System (TAS)</b></p>	<p>✓ The system was being developed.</p>
<p>To implement the <b>Accessibility Program</b> to provide all staff with email address.</p>	<p>✓ The system was being developed.</p>
<p>To enhance the <b>electronic leave system (e-Leave)</b></p>	<p>✓ Enhancement work was in progress.</p>

### 3. Saving Resources

We save resources by exercising the principle of "Reduce, Reuse and Recycle" and utilizing resources efficiently.

Targets	Performance in 2005
<h2>Reduce</h2>	<ul style="list-style-type: none"> <li>✓ Due to the increase in staff strength, the paper consumption in 2005 had a slight increase compared with that in 2004. In this regard, we endeavor to reduce the use of paper by encouraging staff to:-               <ul style="list-style-type: none"> <li>□ Adopt double-sided printing and photocopying; and</li> <li>□ Minimize the production of hardcopies of documents.</li> </ul> </li> <li>✓ e-Greeting cards were sent.</li> </ul>
<h2>Reuse</h2>	<ul style="list-style-type: none"> <li>✓ Scrap paper with a blank side was placed near the photocopying machines to facilitate reuse of paper.</li> <li>✓ We encourage staff to:-               <ul style="list-style-type: none"> <li>□ Use blank side of used paper for drafting, filing and printing.</li> <li>□ Reuse envelopes for internal circulation.</li> </ul> </li> </ul>
<h2>Recycle</h2>	<ul style="list-style-type: none"> <li>✓ Recycling boxes were placed near high paper usage equipment like photocopiers, fax machines and network printers to collect used paper for recycling. In 2005, 17,912 kg of waste paper was collected.</li> </ul>



## C. EDUCATION AND TRAINING

### 1. Educating the Public on Sustainability


We instill the concept of timely maintenance of existing buildings and green buildings into the public through our publicity programmes and also to engage the community in the process of formulating strategies in relation to sustainable development.

Targets	Performance in 2005
<p>To sustain public education and publicity campaign on the need for periodical safety inspection and maintenance of buildings.</p>	<ul style="list-style-type: none"> <li>✓ A joint Building Maintenance and Management Carnival was organized in collaboration with HKHS &amp; URA on 27.11.2005 to promulgate the importance of timely maintenance of existing buildings</li> <li>✓ BD sent delegates to attend the 2005 World Sustainable Building Conference and set up booth therein for exchange of sustainable building experience and strategies as well as construction practices with other advanced countries.</li> </ul>



## 2. Training our Staff

Our training and development programme puts great emphasis on equipping our staff to play the appropriate and facilitating role in sustainability development by offering a variety of training programmes on the subject.

Targets	Performance in 2005
<p>To provide more than 500 training man-days on green building issues and building repairs in 2005.</p>	<p>✓ Achieved.</p> <p><b>30</b> local seminars / courses / conferences on environmental issues and building repairs were arranged to provide <b>519</b> training man-days. <b>6</b> site visits to environmentally friendly and innovative buildings or material laboratory were organized to provide <b>95.5</b> training man-days. <b>2</b> overseas duty visits for attending international conferences on sustainable development and innovative building technologies in Japan and Beijing were made.</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;">     </div> <p>✓ The Environmental Protection Department was invited to deliver a talk on “Green Living” and “Green Office” to our staff in registry meeting. Useful green tips were offered in the talk and practical green measures were proposed for implementation in office.</p>

### III. Way Forward

Our commitments to bring along a safe and sustainable built environment are reflected in our decision-making process and will be carried through in our everyday activities.

On the public front, we will continue to promote the importance of timely maintenance and building repairs, permeating the concept of sustainability into the entire community.

For industry stakeholders, we will explore new ways to encourage sustainable buildings whilst maintaining the current initiatives to encourage the design and construction of environmentally friendly buildings.

In our workplace, we will maintain our consistent approach in adopting green practices in the office. We will continue to keep our staff abreast of the latest development in sustainability to enable them to assume their environmental responsibility.

While our approach will be driven by the organizational imperatives, policy initiatives and departmental goals, it will also be responsive to the interest of our wider stakeholder community. To this end, we sincerely invite you to provide us your views and suggestions, which are important to the continuous improvement and development of our measures towards a sustainable environment.

### 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)

For any suggestions, please contact us via one of the following means:

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

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

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

Hotline : 2626 1616

(BD hotline is handled by "1823 Citizen's Easy Link of the Government")

Fax : 2537 4992