

# Environmental Report 2009



Education Bureau



# Environmental Report 2009

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# FOREWORD

Maintaining an environmentally friendly surrounding is crucial to the development of our future generations. As our standing policy, we are committed to conserving our environment through various means and delivering our services in an environmentally responsible manner. To take this forward, we undertake to promote environmental education in schools, fully comply with environmental legislation, and initiate housekeeping measures to preserve common resources and nurture civic responsibility as well as environmentally responsible attitude among our young generation for the environment. In supporting Government policies on environmental protection and sustainable development in Hong Kong, we will keep on pursuing our environmental goals and striving for continual improvement in our environmental performance.

The objective of this report is to outline our policies and management measures with respect to environmental issues, our past performance in 2009 and our direction for the coming year.



# CONTROLLING OFFICER'S PROFILE OF KEY RESPONSIBILITIES

We, the Education Bureau, are responsible for formulating and reviewing education policy, and overseeing the effective implementation of education programmes. Permanent Secretary for Education is responsible for the Policy Area 16: Education.

Our Bureau seeks to provide quality school education for our students, to develop their potential to the full and to prepare them for the challenges in life. One of our missions is to deliver professional services and ensure effective use of resources.

The Bureau had an establishment of 5,693 permanent posts as at 31 December 2009. Apart from 65 Government primary and secondary schools, our offices are located in 21 venues throughout Hong Kong.



# ENVIRONMENTAL POLICY

Our environmental policy is to promote environmental education in schools, to enhance our staff's environmental awareness by encouraging them to participate in environmental protection activities, to maintain a management system to improve the environmental quality of our activities, to fully commit to implementing the Clean Air Charter, to adopt responsible environmental housekeeping practices and to comply with relevant legislation and codes of practice.

We devote our green efforts in two main areas: to promote environmental education in schools as well as implement in-house green measures in offices and schools.



# REQUIREMENTS UNDER the CLEAN AIR CHARTER

The Chief Executive kicked off the Action Blue Sky in July 2006 as a massive publicity campaign to raise the community's awareness of improving the air quality in Hong Kong.

In tandem with a public appeal for energy conservation, he also directed that the Hong Kong Special Administrative Region Government should take the lead in reducing energy consumption.



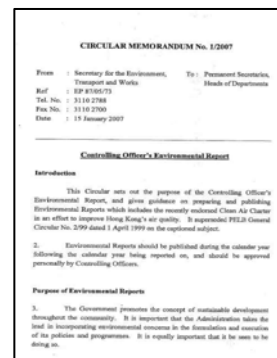
To show our strong commitment to environmental protection and concern about the well-being of our future generations, the Chief Executive, on behalf of the Hong Kong Special Administrative Region Government, signed the Clean Air Charter in November 2006. Accordingly, all government bureaux and departments are required to follow the principles and spirit of the Charter when designing and implementing measures having regard to the specific nature and need of their operation and activities.





## (A) INSTITUTIONAL CHANGE: BUREAU GREEN MANAGEMENT

To put in place an effective management framework, Principal Assistant Secretary (Administration) has been appointed as the Green Manager of the Bureau to oversee environmental protection issues. Under his chairmanship, a cross-divisional Bureau Green Management Working Group with representatives from all divisions set up since 1999 has been developing the Bureau's environmental objectives and overseeing the implementation of green housekeeping programmes. Apart from serving as the focal point for directing and addressing energy and environmental management issues and strengthening green efforts in the Bureau, the Working Group also initiates and monitors the progress of green measures, and reviews the overall strategy for green management in the Bureau. To respond to the Clean Air Charter, we have further strengthened the function of the Green Management Working Group with particular emphases on energy conservation and air quality improvement.



A two-tier Energy Manager Scheme has been introduced to promote and monitor green measures in the Bureau:

### 1. Green Managers at Divisional Level

14 Energy Managers have been appointed at Divisional level to oversee the implementation of energy-saving and green measures.

### 2. Assistant Energy Managers and Green Executives at Sectional Level

Environmental audit and inspection teams with 45 Assistant Energy Managers and 38 Green Executives have been set up at Sectional level to perform energy conservation duties and implement green measures, such as conducting regular checks, tendering advice to staff concerned and keeping in view the energy consumption situation closely. They take on the role of Energy and Emission Management Teams to co-ordinate measures to reduce energy and paper consumption.

Furthermore, electricity consumption of all office venues has been critically reviewed and closely monitored at the Green Management Working Group meetings conducted on a bi-monthly basis.

## **(B) FOLLOW-UP ACTIONS TO THE CLEAN AIR CHARTER**

### **1. Energy Audit**



We work closely with Electrical and Mechanical Services Department (EMSD) to identify more energy saving opportunities. EMSD completed an energy audit in the Bureau Headquarters in Wu Chung House, our largest office venue, in 2007. Another energy audit in the Kowloon Tong Education Services Centre was also completed in early 2008. We have taken various measures, including removing part of the fluorescent lamps in over-lit areas, switching off some of the passenger lifts during non-peak period, to implement the recommended energy saving proposals.

### **2. Reduction of Air Pollution**

#### **(a) Use of Fuel Efficient Types of Vehicles**

Vehicular emissions are the major local source of air pollution and reducing emissions from vehicles is an effective way to improve air quality. We have been using unleaded gasoline for our vehicle fleet since 1991.







During the past years, we have gradually replaced five of our six vehicles by environment-friendly petrol saloon cars with lower emissions and more fuel-efficient engines. Among those, three are equipped with a ‘hybrid system’ which combines a gasoline engine and electric motor power to improve fuel economy and minimise emission of polluting particles. The last vehicle has scheduled to be replaced by environment-friendly type in 2010.

### **(b) Promotion of Green Driving**

To reduce idling emissions and achieve fuel saving, our drivers are regularly reminded to switch off engines while waiting. Frequent surprise inspections have been conducted to ensure the compliance of our drivers in this regard.



Stickers to remind drivers to switch off idling engines while waiting

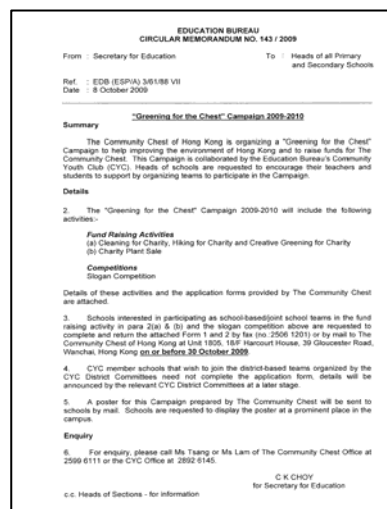
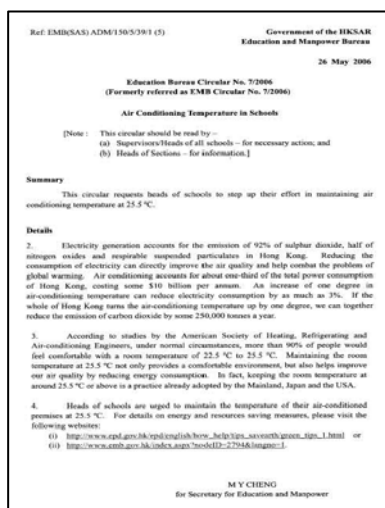
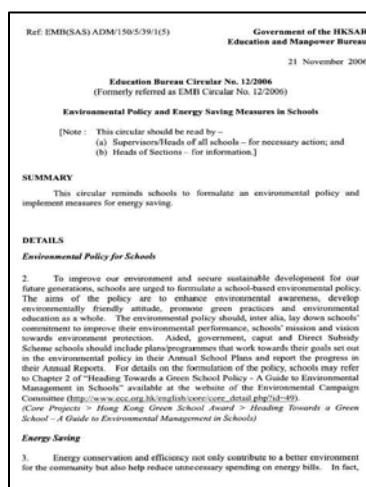
### (c) Economical Pool Car Resources

Furthermore, we have been practising car pooling and task combination, i.e. to achieve multiple objectives in one journey instead of several separate trips. Whenever circumstances permit, “pool car” orders from different users would be arranged to adjust transport demand and reduce the use of vehicles.



### 3. Issue of Circulars to Schools

To help alleviate problem of global warming, we issued circulars to remind all schools to maintain air conditioning temperature at 25.5°C with a view to reducing the emission of carbon dioxide in Hong Kong. We required all schools through circulars to formulate a school-based environmental policy and implement effective measures for energy saving so as to help improving air quality. In addition, the ‘Greening for the Chest’ Campaign is collaborated by our Community Youth Club. We encouraged schools to support the green campaign of 2009-2010 through the EDB Circular Memorandum no. 143/2009.



# KEY ENVIRONMENTAL PERFORMANCE IN 2009

## (A) ENVIRONMENTAL EDUCATION

Our mission is to enhance students' environmental awareness through education, and to enlist their participation in conserving the environment. To take this forward, we adopt a cross-curricular approach in the promotion of environmental education and promote school-based and action-oriented activities.

To fulfil the goal of promoting environmental education, various initiatives have been undertaken. They include:-

- ✚ issuing curriculum guides and other reference materials to promote environmental education in schools;
- ✚ producing multimedia packages and education television programmes on environmental education;
- ✚ organising school events on environmental education together with various government departments and green groups;
- ✚ incorporating appropriate environmental education elements in school syllabuses at all levels and updating curriculum guides and exemplars to assist schools in planning environmental education programmes;
- ✚ producing a reference handbook on “Education for Sustainable Development for Primary Teachers”; and



- ✚ supporting the “Greening for the Chest” Campaign organised by the Community Chest of Hong Kong.

## 1. Interaction with Schools

### (a) School Inspections and Visits

We conducted 8 school visits in 2009 giving advice on the implementation of environmental education.

- ✚ Advice was given on various environmental issues including improving air quality and energy conservation. Schools were also encouraged to formulate an environmental school policy and implement measures on energy saving.

### (b) Provision of Resources to Schools

- ✚ A professional development programme for primary teachers with “Climate Change” as a topic was organised in collaboration with the Hong Kong Observatory in November 2009.



- ✚ Reference and teaching materials on “energy sources and the environment”, “energy policy and renewable energy”, “air pollution and sustainable development”, “wind power”, “light pollution”, etc. have been uploaded to the Web-based Resource for Liberal Studies.
- ✚ Updating of the curriculum guide for General Studies for Primary Schools is in progress. Strengthening environmental education elements is included.
- ✚ A total of 7 seminars training programmes in the form of seminars / visits on Education for Sustainable Development were organised. Energy conservation was one of the topics discussed.
- ✚ A Web-based Environmental Educational Learning Package on “Education for Sustainable Development in Schools in Hong Kong” was developed. Clean Air was one of the topics in the package.

- ✚ EDB supports schools to organise Outdoor Education Camps (OEC) in which enhancing students' awareness of environmental protection is one of the elements. Related themes or activities include "Nature and I", "Science and Ecology Trips", "Climatology, Geography and Ecology Study Camps", etc. Some schools also adopted environmental protection as the main theme of OEC such as "Enhancing Communication Skills and Environmental Awareness".
- ✚ A total of 85,486 students, including 28,770 secondary and 56,716 primary students, from 813 schools (347 secondary and 466 primary schools) participated in the OEC in the 2008/09 school year.



### (c) School Activities to Promote Environmental Awareness

- ✚ Funding was provided for 400 school visits to the Mai Po Nature Reserve. Other visits to Wetland Park were also conducted on school basis through life-wide learning activities.
- ✚ Student Environmental Protection Ambassador Scheme (SEPAS) 2009/10

- ✚ SEPAS was organised in collaboration with the Environmental Protection Department (EPD) and the Environmental Campaign Committee to promote environmental protection in schools. The major theme in 2009 was Low Carbon Living. The Student Environmental Protection Ambassadors (SEPAs), their schools and families are encouraged to acquire low carbon lifestyles to help alleviate the present global warming situation.



- ✚ A total of 574 primary and secondary schools participated in the Scheme and 14,351 SEPAs were appointed.
- ✚ All SEPAs have also been appointed as the Blue Sky Ambassadors to assist teachers in organising environmental education activities related to air quality improvement.

Winner List of SEPAs 2008-09: (Government Schools only)

*i. Student Environmental Reporter Competition – “Green Enterprises in Perspective”*

School Name	Name	Award
Shau Kei Wan Government Secondary School	1. CHOW Lok Yi	Outstanding Student Environmental Protection Ambassador
Chiu Lut Sau Memorial Secondary School	2. WONG Shan Shan	

*ii. Capacity Building Programme*

School Name	Name	Award
Tuen Mun Government Secondary School	1. CHUNG Shuk Man	Certificate of Appreciation
	2. FOK Sze Tik	
	3. KAM Cheuk Yiu	
	4. NG Wing Yan	
	5. WONG Ka Hin	
	6. WONG Po Ying	
Ho Man Tin Government Secondary School	7. LAM Ching Wan	
	8. YIP Tse Yan	
Chiu Lut Sau Memorial Secondary School	9. CHEUNG King Shan	
	10. CHING Kwong Ming	
	11. IP Choi Yi	
	12. IP Yung Ho	
	13. WU Hiu Wai	
Tsuen Wan Government Secondary School	14. LAM Yuen Yuk	
	15. LAU Wing Yan	
	16. WONG Yue Kwan	
Fanling Government Secondary School	17. NG Yi Man	
	18. YIU Wai Sum	



✚ Eighth Hong Kong Green School Award (8<sup>th</sup> HKGSA)

- ✚ This award was organised in collaboration with the EPD and the Environmental Campaign Committee to promote environmental protection in schools and the major theme was Low Carbon Living.
- ✚ A total of 184 pre-schools, primary and secondary schools participated in the Award.
- ✚ The following two schools are awarded with the title of “Hong Kong Green School” in the Secondary School Category:

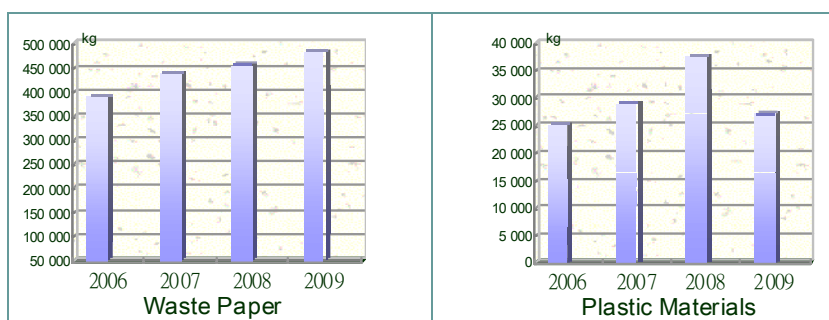
Hong Kong Green School	✚ Sir Ellis Kadoorie Secondary School (West Kowloon)
	✚ Tsuen Wan Government Secondary School



## Waste Separation and Recycling Scheme in Schools



- We worked together with the Environmental Campaign Committee to organise the Scheme to promote the concept of “4Rs”, i.e. reusing, reducing, recycling and replacing disposable products. As at the end of 2009, the participating schools collected about 484,260 kilograms of waste paper and 27,250 kilograms of plastic materials.



- In addition, about 1,980 kilograms of metal was collected.

## 2. Building Partnerships

We also collaborated with various government departments and relevant green groups to promote environmental protection. We participated in the following working groups and committees in 2009 to provide advice on the organisation of school activities and production of resource materials to schools -

✚ Clean Hong Kong : Publicity and Public Education Group

✚ Community Involvement Committee on Greening

✚ Environmental and Conservation Fund Committee

✚ Environmental Education & Community Action Projects Vetting Committee (Environment and Conservation Fund)

✚ Environmental Campaign Committee

✚ Environmental Campaign Committee Education Working Group

✚ Hong Kong Environmental Education Group

✚ WWF Hong Kong Education Committee

✚ Hong Chi Association Community Organic Farming Competition for Primary and Secondary Schools in Hong Kong

✚ British Council Climate Cool Project



附錄 3

世界自然基金會可持續發展教育項目(中學)  
(2009至2010學年)

**宗旨/目標**

上述活動旨在增加中學生對自然環境的認識和關注，並了解其與社會及經濟發展的關係。

**詳情**

2. 於2002年在約翰尼斯堡舉行的世界首屆會議，同意在2005年開展「聯合國可持續發展教育十年」活動，其目的是透過教育——一個達成「可持續發展」的有效方法，幫助解決21世紀所面臨的環境、社會及經濟問題。大會期望透過全球各地的努力和教育，共同推廣「可持續發展」，以求達致改善人民生活、保育地球資源及鼓勵全球經濟發展的目標。

3. 世界自然基金會香港分會在2009至2010學年將會舉辦四項可持續發展教育項目給中學生參與。

4. 有關可持續發展教育項目的詳情，請參閱附錄 3a 的世界自然基金會香港分會的邀請函。

5. 如欲參加上述可持續發展教育項目，請透過網上申請，**申請以先到先得方式處理**。有關來補中學教育項目的截止申請日期為 **2009年6月30日(星期二)**。

**聯絡人**

6. 如有查詢，請致電 2526 1011 與世界自然基金會香港分會劉慧娟小姐或致電 2153 7488 與課程發展處德育及公民教育組葉劉玉珍女士聯絡。

## **(B) IN-HOUSE HOUSEKEEPING MEASURES**

### **1. Design and Construction Works for New Schools**

We introduce various environmentally friendly initiatives in design and construction works of new school buildings, including: -

- ✚ reduction in noise and air pollution during construction through implementation of mitigation measures;
- ✚ the use of renewable energy (e.g. photovoltaic system) and alternative source of water (e.g. treated rain water ) as far as practicable;
- ✚ reduction in construction wastes by using more precast and prefabricated building elements;
- ✚ increased application of re-usable materials, in particular metal framework, site hoarding and recycled products;
- ✚ improvement to indoor air quality by installing fresh air pre-conditioners in classrooms and using low volatile organic compound-emitting building materials;
- ✚ the use of environmentally friendly refrigerant for air-conditioners;
- ✚ the use of energy-saving devices such as sun shading on external elevations, occupancy sensors, photo-sensor controlled lighting, T5 fluorescent lamps, LED exit signs, electronic ballasts and variable refrigerant volume air-conditioning system;



- ✚ the use of water-saving devices such as dual-flush toilet system and sensor-taps for wash basins;

✚ increased landscaping in school playgrounds and upper levels and roof floor of school (including vertical greening) for a greener environment in schools and campuses;



✚ provision of varied plant species and designated green areas in schools to foster students' interest in natural science and enable students to develop horticultural skills;

✚ provision of adequate space and waste separation bins to facilitate separation, collection and storage of recyclable materials for recycling;



✚ the use of shared facilities among schools which has enabled a greener, more spacious environment in these schools;

✚ introduction of hygiene improvement measures to schools, including toilet provision without main entrance doors and hand-washing facilities in playgrounds; and

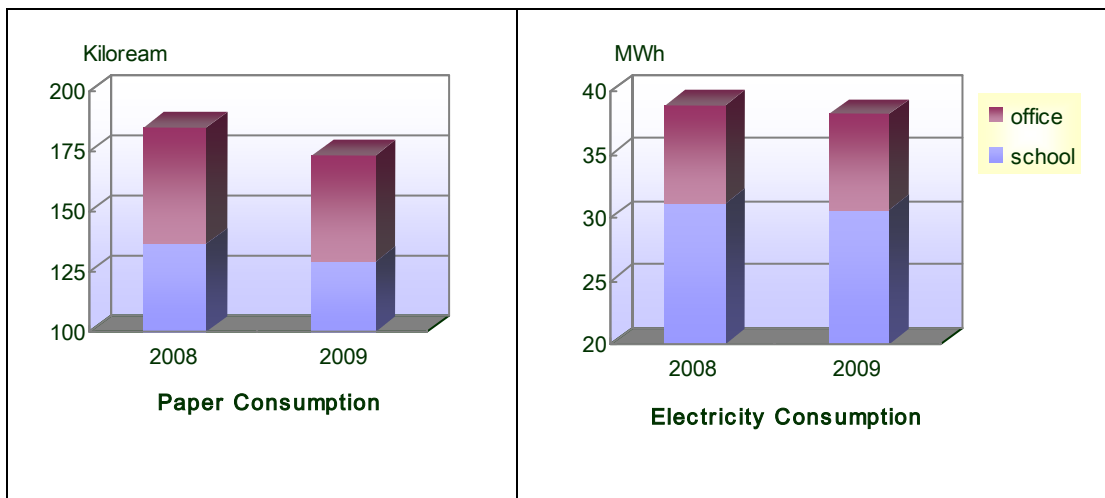
✚ provision of Central Food Portioning Area to facilitate the use of re-usable cutlery and food containers and to reduce food wastage.



## 2. Consumption of Resources

### (a) Saving Paper and Electricity

We are making continuous efforts in economising the use of paper and reducing electricity consumption. In 2009, we achieved a reduction of about 6.38% on paper consumption and a slight reduction in electricity consumption. We shall continue to explore other effective measures to achieve further savings in electricity and paper consumption in 2010.



## (b) Conserving Energy

We continue to adopt energy-efficient measures and sustain our efforts in reducing energy consumption.

- ✚ Installation of energy saving fluorescent tubes with electronic ballasts and light bulbs at the Headquarters was completed in 2009.

- ✚ We have been strictly following Government policy to maintain the ambient office temperature at 25.5°C.



- ✚ In 2009, we attended briefing sessions on “Government Energy Consumption Reporting and Monitoring”, experience sharing seminars on “Achieving Excellence in Indoor Air Quality” and seminar on “Green Building Management and Carbon Audit”. Electricity consumption reports were compiled on a quarterly basis, while internal energy audits were conducted periodically.

- ✚ We have also worked with the Architectural Services Department on using other energy saving equipment in the Headquarters, such as replacing the conventional spotlights with LED spotlights as well as upgrading the toilet lighting system with motion detection sensors in 2009.



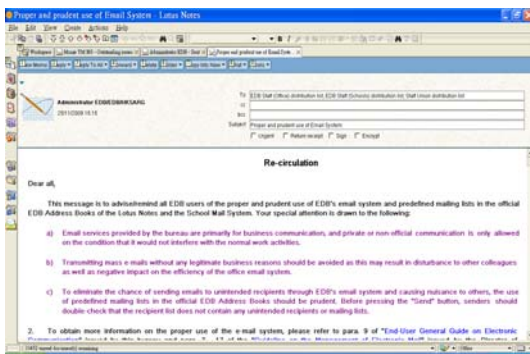


### 3. Highlights of Others Green Measures in 2009

We have all along adhered to the 4Rs principles of “Reduce, Re-use, Re-cycle and Replace disposable products” and focused on minimising waste and implementing various green measures on an on-going basis.

#### (a) **Minimising and Reducing Wastes**

##### Using Electronic Means of Communication



With a view to promoting paperless operation in our daily work and reducing the use of paper, all staff in the Bureau are provided with email accounts and use of electronic mails has become the most common means of communication in the Bureau.

All EDB staff are provided with Intranet accounts. The Intranet platform has been widely used to disseminate Bureau information including telephone directory, training activities, newsletters, etc. and process administrative and personnel matters, e.g. booking conference rooms, processing leave applications and processing applications for training courses. We encourage staff to exchange documents through electronic means to save paper.



## (b) Re-use and Waste Recycling

As an integral part of our green strategy, we have put in place the following recycling program –

### Green Purchasing



✚ In procurement of products, we took into account environmental factors such as recyclability and energy efficiency as far as applicable. We also purchased green products like re-cycled ink and toner cartridges.

✚ We supported procurement of green products for use in the Bureau. In arranging tenders, we included common environmentally friendly terms such as trade-in clauses, recycling arrangements, etc. as far as practicable. Trade-in arrangements for the supply of ink and toner printer cartridges were arranged. In this connection, a total of 600 used cartridges were returned to the suppliers concerned for recycling or public auction in 2009. Furthermore, we collected a total of 3,923 pieces of computer waste for recycling either by contractors under the disposal contracts or through public auction, representing an increase of 11% as compared with 2008.



✚ Tenderers were required to include use of recycled plastic bags and approved cleansing chemical and materials in the service schedule when inviting tenders for new cleansing contracts for our offices and schools.

### Collecting Waste



✚ We joined the EPD's "Programme on Source Separation of Commercial and Industrial Waste" and provided green boxes in offices and schools for collection of papers, plastic and aluminium wastes for recycling.

✚ We collected a total of 175,785 kilograms of waste paper for recycling throughout the year.

### Use of Recycled Paper



- ✚ Following the EPD's recommendation of wider use of recycled paper, we used 30,284 reams of recycled papers in the Bureau in 2009.
- ✚ We continue with our efforts in reducing paper consumption and measures such as printing on both sides of paper and reusing envelopes.

### Improvement in Indoor Air Quality



- ✚ Under the EPD's Indoor Air Quality (IAQ) Certification Scheme, offices of the Headquarters have renewed the "Good Class" IAQ Certificate in 2009. We will continue monitoring the indoor air quality regularly to ensure the IAQ meets the standard promulgated by the EPD.

### Promotional Green Activities

- ✚ We organised a series of activities to promote green management in the Bureau in 2009, including –

#### **(i) The Tenth Paper Saving Competition**

- ✚ We organised the tenth Paper Saving Competition to encourage colleagues working in government schools and the offices to save paper in their daily operations.



### Prize

Best Performance Award  
in Paper Saving

### Winning Teams

■ Curriculum Development Institute

■ Yuen Long Public School

Best Progress Award in  
Paper Saving

■ Quality Assurance Division

■ Yuen Long Public School

### (ii) *Green Christmas*

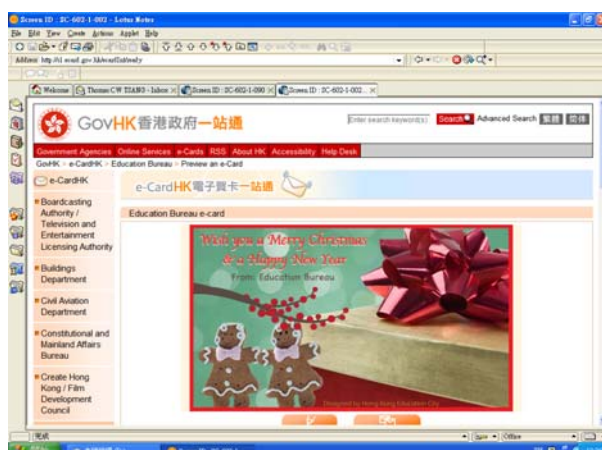
■ Donation of Clothing, Small Electrical Appliances and Toys.

■ We collected 14 packs of clothing, small electrical appliances and toys for donation to the Salvation Army during Christmas in 2009.



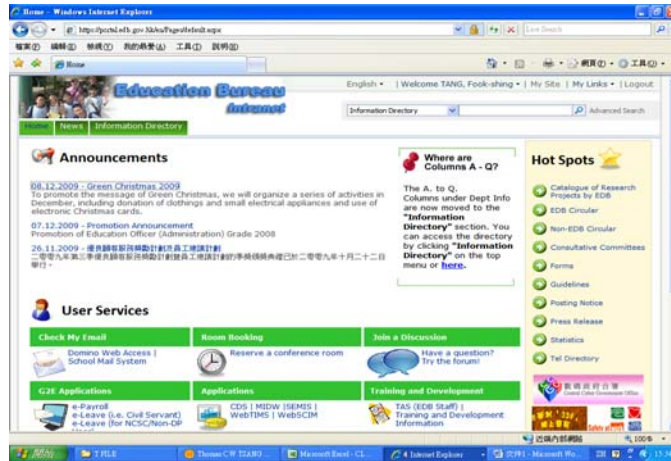
### (iii) *Electronic Christmas Cards*

■ As one of our paper-reducing measures, we designed and sent e-cards during Christmas and New Year to our working partners. Also, we have made use of the GovHK Internal e-Card Platform for staff to distribute e-cards. In this case, only one greeting card was issued in 2009.



## Promotional Messages on Newsletter and Bureau Intranet

- ✚ To invite direct participation of staff in protecting the environment, and appeal for their support and contribution in this aspect, we disseminated green messages and notices on the Bureau newsletter “EDB Pulse” and EDB Intranet’s pop-up window to promote green management. We also disseminate green management useful tips through Intranet and internal publications.





# WAY FORWARD

We fully recognise the importance of environmental protection and green management. The Bureau will continue to devote efforts and resources to maintaining a high level of green management practice and setting a good example to the community.



In terms of education, we will continue to encourage schools to develop a green culture, and to equip students with the knowledge, skills and attitude to become environmentally friendly citizens. To support schools in environmental education, we will continue to provide a broad range of services including school visits, teacher education programmes, territory-wide green activities, teaching guidelines and learning resources.

Within the Bureau, we will strive to reduce electricity consumption having regard to actual operational requirements. With completion of energy audits and review of enhanced green management measures, we would be in a better position to work out more concrete energy saving targets in the future.





## TARGETS FOR 2010

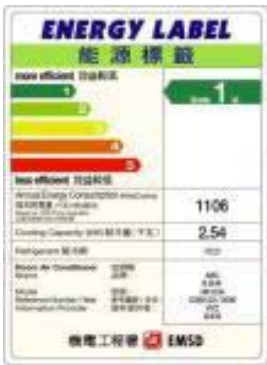
Our targets for promotion of environmental education in the 2009/10 school year are as follows:

<i>Key Action Area</i>	<i>Targets for 2009/10 School Year</i>
<ul style="list-style-type: none"><li>■ Conducting school inspections and visits to give advice on environmental education</li></ul>	<ul style="list-style-type: none"><li>■ To advise schools on environmental education during school visits and other learning experience activities</li></ul>
<ul style="list-style-type: none"><li>■ Organising school activities to enhance students' awareness on environmental protection</li></ul>	<ul style="list-style-type: none"><li>■ To fund 400 school visits to the Mai Po Nature Reserve</li><li>■ To organise activities in collaboration with various government departments and non-government organisations to promote green living</li></ul>



- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>■ Providing advice on organisation of school activities and production of resource materials to schools to promote environmental education</li></ul> | <ul style="list-style-type: none"><li>■ To enrich the web-based learning and teaching resources, such as the life event exemplars, relating to environmental education</li></ul> |
|--|--|

In conducting our business, we will continue to economize use of resources and minimise waste. In the coming year, we will continue to –



- ✚ initiate and promote environmentally friendly housekeeping practices;
- ✚ conduct indoor air quality check and devise more effective measures to strive for improving air quality;
- ✚ conduct energy audits to help identify room for further energy conservation;

- ✚ promote the use of electronic means of communication within the Bureau; and
- ✚ organise activities and training to promote staff's awareness and participation in green management.



# CONTACT US

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We value very much your feedback on the Environmental Report 2009, which would be most useful for improving our report in the coming year. If you have any comments/suggestions, please complete this form and send it back to Centre Manager, Room E301, East Block, Kowloon Tong Education Services Centre, 19 Suffolk Road, Kowloon Tong, Hong Kong or fax it to 2117 0081. You may also send any comments by email to [edbinfo@edb.gov.hk](mailto:edbinfo@edb.gov.hk). Thank you.

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## Feedback Form

1. Do you find the Report informative?  Yes  No

2. Do you find the content of the Report easy to understand?  Yes  No

3. Which other topics would you like the Report to cover?

\_\_\_\_\_

4. What improvement measures would you recommend?

\_\_\_\_\_

5. What is your overall view of the Report?

Excellent  Good  Adequate  Poor

Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

Address : \_\_\_\_\_