

2005 Environmental Report

Environment, Transport and Works Bureau
(Transport Branch and Works Branch)

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2005 Environmental Report

Environment, Transport and Works Bureau

1. INTRODUCTION

This environmental report covers the environmental performance of the Transport and Works Branches of the Environment, Transport and Works Bureau (ETWB).

ETWB is responsible for policy matters in three portfolios, viz., Environment, Transport and Works, handled previously by the Environment Branch, the Transport Branch and the Works Branch. With effect from 1 April 2005, the Environment Branch merged with the Environmental Protection Department (EPD). The new entity then takes on a corporate title of EPD. The merger brings the policy-formulation and implementation functions of environmental matters under one roof, the new EPD, which reports to the Secretary for the Environment, Transport and Works (Secretary for ETW) direct. This arrangement greatly shortens the line of command and improves the overall efficiency. It also places the EPD in a much stronger position to tackle the unique environmental issues faced by Hong Kong. On the part of its environmental performance, please visit its website at <http://www.epd.gov.hk>.

The Secretary for ETW is the head of the Bureau. She is assisted by the Permanent Secretary for the Environment, Transport and Works (Environment)/Director of Environmental Protection, the Permanent Secretary for the Environment, Transport and Works (Transport) and the Permanent Secretary for the Environment, Transport and Works (Works). In addition, the Transport Branch and Works Branch of the Bureau oversees the operation of their executive departments, namely, Architectural Services Department, Civil Engineering and Development Department, Drainage Services Department, Electrical and Mechanical Services Department, Highways Department, Transport Department and Water Supplies Department.

2. BRIEF ON THE GEOGRAPHIC POSITION OF HONG KONG

Hong Kong houses about 6.9 million people over a small area of 1,104 square kilometres, with population concentrated in less than 21% of the land. Population densities in the developed areas average over 34,000 per square kilometer, and in the Kowloon Peninsula, the average is over 44,110. These areas have some of the highest population densities found anywhere in the world, and are several times higher than those in cities like London, New York and Tokyo.

Hong Kong is home to intense economic activities. Per capita GDP in 2005 was about HK\$199,000, placing Hong Kong among the most prosperous communities in the world. Situated at the mouth of the Pearl River, Hong Kong is a leading city in the Pearl River Delta, providing essential services to its fast-developing hinterland. Such combination of people and economic activities puts enormous strain on the local environment.

3. KEY RESPONSIBILITIES OF THE TRANSPORT AND WORKS BRANCHES, ETWB

The Transport Branch is responsible for policy matters on development of transport infrastructure, provision of transport services and traffic management; while public works programme, greening, water supply, slope safety and flood prevention are under the policy purview of the Works Branch. In the process of policy-formulation, sustainability is also a key consideration in the development.

The major areas of policy responsibilities include -

- to plan for and implement the construction and improvement of our transport infrastructure, with emphasis on railways;
- to further promote the usage of public transport services by improving their quality and co-ordination;
- to effectively manage road use, reduce traffic congestion and promote road safety;
- to continue to support environmental improvement measures in transport-related areas;
- to ensure the provision of a reliable, adequate and quality water supply and an efficient water supply service;
- to ensure effective planning, management and implementation of public infrastructure development and works programmes in a safe, environmentally responsible, timely and cost-effective manner and to maintain high quality and standards;
- to ensure a high standard of slope safety, and greener and visually more attractive slope appearance;
- to alleviate the risk of flooding and incorporate environmentally friendly measures in river widening works and channel design; and
- to uplift the quality of the living environment by promoting urban greening.

4. ENVIRONMENTAL GOALS OF THE TRANSPORT AND WORKS BRANCHES, ETWB

In planning our transport systems and implementing public works, we require ourselves and our agents to minimize any possible environmental impacts. We are committed to alleviating and containing the environmental pressures arising from our large population, high population density and active economy and preserving the environmental assets that we have been enjoying. We are also committed to working closely with the Guangdong authorities in all aspects to bring about environmental improvement with the ultimate objective of achieving sustainable development in the Pearl River Delta. Specifically, our goals are -

- to improve water quality;
- to reduce construction and demolition (C&D) wastes;
- to improve the efficiency with which energy and materials are used in public works;
- to enhance the quality of our living environment through active planting, proper maintenance and preservation of trees and other vegetation;
- to provide transport infrastructure and services in an environmentally friendly manner;
- to ensure that public works projects are carried out to the highest quality according to latest environmental standards, with the state-of-the-art environmental technology; and
- to lead by example, and to promote environmental awareness among works departments and within the local construction industry.

5. ENVIRONMENTAL PERFORMANCE OF MAJOR POLICY PROGRAMMES UNDER THE TRANSPORT AND WORKS BRANCHES, ETWB

Water Quality and Conservation

■ *Conservation of fresh water*

Fresh water is a scarce resource. With growing population and economic activities, there is an ever-increasing demand for this limited resource. From a sustainability perspective, water conservation is one of the fundamental elements to ensure a reliable and sufficient water supply to the people in Hong Kong. Against this backdrop, we are continuing with the implementation of the Total Water Management programme to promote water conservation, water resource protection and management. This programme also features initiatives on development of new water resources and water recycling which will help to save fresh water.

In 2004 and 2005, we achieved good progress towards water conservation through continued implementation of the following measures -

- education and publicity programmes on the importance of water conservation;
- use of seawater for toilet flushing;
- employing the latest leakage detection technologies, including continuous pressure monitoring and pressure management, to reduce leakage in the water supply and distribution systems;
- a tiered water tariff structure for domestic consumption to encourage water conservation; and
- reduction of unauthorized use of water by strengthening the established procedures and exploration of more effective and efficient policies.



‘World Water Monitoring Day 2005’ public activities

In the coming year 2006, the following initiatives on conservation and management of water resources will be pursued -

- wider use of low-flow flushing cistern and dual-flush for toilets in order to reduce the amount of flushing water used and the sewage generated;
- commissioning of a pilot scheme in Ngong Ping for recycling treated sewage effluent for toilet flushing and landscape irrigation;
- operation of a pilot desalination plant at Ap Lei Chau for another year to obtain more technical data on the seawater treatment technology;
- implementation of a 15-year plan for large –scale replacement and rehabilitation of aged water mains throughout the territory to reduce water losses due to leakage and main bursts; and
- carrying out a consultancy study on the engineering strategy of total water management and water conservation for Hong Kong.

Energy Efficiency and Conservation

■ *Water-cooled air-conditioning systems*

In collaboration with the relevant government departments, we introduced a pilot scheme in June 2000 to promote the use of water-cooled air-conditioning systems which are more energy efficient than the conventional air-cooled air-conditioning

systems. Up to the end of 2005, we have identified 75 areas where such systems can be used as compared to 6 when the scheme was first launched in 2000. We have received 193 applications for installation of the water-cooled air-conditioning system. So far, 39 installations have been completed and all were reported to be running in good condition. When all the applications are approved and implemented, it is estimated that the energy consumption will be reduced by 70 millions kilowatt per year, (or a reduction of about HK\$70 million in the electricity cost) and carbon dioxide emission will be lowered by 49,000 tonnes per year. We will also formulate a long-term policy to promote the wider use of water-cooled air-conditioning systems in the territory in the light of the findings from the pilot scheme.

Minimizing Environmental Impact by Public Works Policy

The environmental issues associated with the construction industry are unique and complex. Notwithstanding these challenges, every practicable measure is taken to ensure that the environmental integrity of the projects under the Public Works Programme is continually strengthened through improved management and enhanced controls. To achieve this, we have implemented a range of environmental improvement measures in public works projects, including a systematic environmental management process, more effective nuisance controls, promoting recycling and reduction of construction waste, wider use of recycled aggregates, strengthened enforcement of the Environmental Impact Assessment (EIA) Ordinance, improved site cleanliness and tidiness, enhanced tree preservation measures etc.

We have also set out comprehensive guidelines and procedures for conducting environmental impact assessment for projects not covered by the EIA Ordinance, in order to attain the highest standard in environmental performance, over and above statutory requirements. We will continue to improve the design and construction planning of our public works projects to further reduce their impact on the environment. Contractual provisions are also incorporated in public works contracts to require contractors to adopt the best environmental site practices.

■ ***Policy***

Specifically, we require, as part of our works policy, the following -

Environmental Management

1. project proponents are required to prepare a Construction and Demolition Materials Management Plan (C&DMMP) for identifying and implementing measures to minimize the generation of construction waste and maximize their reuse/recycling through proper planning and design, as well as adoption of appropriate construction methods;
2. the Public Fill Committee will also “match” projects having surplus construction and demolition (C&D) materials with those where C&D materials could be reused as fill;
3. specifications have been promulgated to promote the use of recycled aggregates in filling works, road sub-base construction and concrete

production etc. Also, site hoardings are required to be made of metal material to facilitate reuse. Moreover, we discourage the use of tropical hardwood in false work, formwork and other temporary works;

4. to achieve sustainable development, public works projects will incorporate energy efficient features and renewable energy technologies where practicable;
5. contractors of public works contracts are required to prepare an Environmental Management Plan (EMP) setting out concrete measures to control nuisances such as air, noise and wastewater pollution and minimize the generation of construction waste. The requirements and specifications for EMP were promulgated in December 2005;
6. contractors are also required to appoint an ‘environmental officer’ to oversee the implementation of the EMP;
7. we have introduced the ‘Pay for Environment’ scheme to encourage contractors to invest more resources in environmental management. The scheme also serves as a good management tool for the project team to monitor the contractor’s environmental performance;
8. all capital works contracts are to implement on-site sorting of construction waste to maximize the recovery of reusable construction waste for recycling;and
9. to ensure proper disposal of construction waste, we implement the “trip ticket” system to track and monitor the disposal process for preventing illegal dumping.

■ ***Enhance contractor’s environmental performance***

Contractor’s environmental performance has a major impact on the successful implementation of our environmental policy. In this regard, the following control measures have been implemented -

- the environmental performance of public works contractor is closely monitored and regularly assessed, and the assessment will be taken into consideration in the evaluation of tenders submitted by the contractor for future public works contracts;
- regulating action in the form of suspension from tendering may be taken against any contractor who is on Works Branch’s approved lists with repeated convictions in environment-related offences; and
- regulating action will also be taken against contractors with repeated convictions on poor site hygiene.

■ *Achievements and targets*

Environmental management is an ongoing task that needs tenacity, vigilance and foresight. To achieve this, we initiated a number of key measures last year to improve the environmental performance of public works projects, as summarised below -

Achievements

- we promulgated guidelines and requirements to promote the use of energy efficient features and renewable energy technologies in all new projects;
- we extended the coverage of visual impact review to the designs of ancillary buildings in all projects;
- we set out further policy to ensure that appropriate measures are taken into account in the design, planning and construction phases of public works projects to protect ecologically sensitive streams nearby;
- we introduced a comprehensive specification on the preparation of the EMP and monitoring of nuisance abatement measures. The specification sets out detailed environmental protection measures that the contractor should adopt. A monitoring system has also been put in place to assess the contractor's performance on a regular basis; and
- we launched a public award to promote good waste management practices.

Targets

- continue to promote the use of recycled C&D materials in public works projects, so as to set an example for the construction industry to follow;
- continue to promote good waste management practices and measures through public awards, in-house training and workshops; and
- continue to review the existing environmental management process for further improvement.

Greening

■ *Policy*

Owing to topographic constraints, Hong Kong has adopted a high intensity mode of development to cater for an increasing population. The greening policy of

Government is to uplift the quality of living environment through active planting, proper maintenance and preservation of trees together with other vegetation. Our target is to bring about noticeable improvements in urban greenery, to enhance existing greened areas, and to maximise greening opportunities during the planning and development of public works projects.

We established in December 2002 a Steering Committee on Greening to set the strategic direction and oversee the implementation of major planting or beautification programmes. This Steering Committee is underpinned by four working committees, including the Greening Master Plan Committee, to provide technical and administrative support, as well as to collate input from the general public and expert advisers.

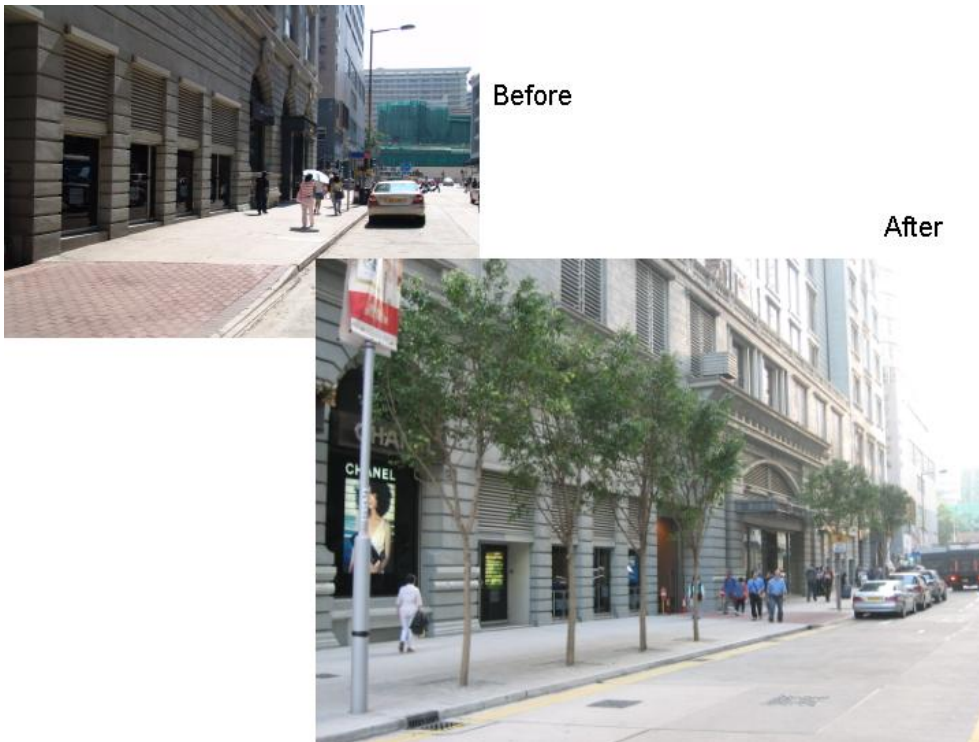
To facilitate the effective planning and monitoring of progress, we will compile a greening programme each year. We have planted about 11 million plants in 2005.



Planting Associated with Public Works Projects –
West Kowloon Development

■ ***Greening Master Plans***

The Greening Master Plan Committee is tasked to co-ordinate the preparation of Greening Master Plans (GMPs) and the implementation of related streetscape improvement schemes in selected urban areas. These plans will set out an overall framework and broad strategy for each selected area and recommend specific sites for beautification with coherent themes and plant species. We have drawn up GMPs for Tsim Sha Tsui and Central in mid-2005. The GMPs for other selected urban districts will follow.



Pilot Greening Schemes associated with GMP for Tsim Sha Tsui –
Street tree planting at Middle Road

■ ***Coordinated efforts***

We will enlist community support for greening and promote civic education in schools, while collaborating with private sector organisations to beautify cityscape. To help nurture greater involvement and ownership, we will arrange community planting near the completion of public works projects.

■ ***Tree preservation***

A comprehensive range of legislative and administrative measures are already in place to prevent unnecessary felling of trees. In addition, we have compiled a “Register of Old and Valuable Trees” to protect trees of special value on government land and promulgated technical circulars to establish control procedures for tree preservation. If tree felling is the last resort, compensatory planting will be provided as far as practical.

We have also compiled a cyber manual for greening and posted it on the government intranet to provide guidance for those responsible for promoting greening work.

We have implemented an annual training programme for government front-line staff, so as to further enhance their knowledge in tree protection. So far, some 1,600 members of our staff have attended the training.

■ *Greening of slopes*

Hong Kong's hilly terrain coupled with dense building and infrastructure developments has resulted in some 57,000 man-made slopes. We are committed to making every newly formed or upgraded government man-made slope look as natural as possible, by using vegetation for slope surface protection and preserving existing vegetation wherever possible. In this regard, landscape treatments were provided to all man-made slopes upgraded under the LPM Programme in 2003 to 2005, 70% of which used vegetation cover as slope surface protection.

The Civil Engineering and Development Department has recently completed trial planting of native small tree and shrub species on steep slopes in collaboration with the Kadoorie Farm and Botanic Garden, and has undertaken studies to assess the performance of different greening techniques and to identify vegetation species that can successfully establish and self-sustain on steep slopes. The results of the studies and planting trials have provided useful information for further exploration of the establishment of robust, cost-effective and eco-friendly vegetation covers on man-made slopes.

■ *Quarry rehabilitation works*

As part of the quarry rehabilitation works, active quarries are being rehabilitated to attractive green areas suitable for a variety of uses. The rehabilitation works involve re-contouring of the quarry to a pre-designed profile and extensive planting to blend in with the natural environment. This would facilitate the establishment of suitable habitats for birds and other terrestrial animals.

■ *Targets for 2006*

- To plant about 8.5 million trees, shrubs and annuals with about 75% of them in urban areas;
- to further enhance the management of urban greenery and improve the quality of existing greened areas;
- to continue the task of preparing GMPs for other selected urban districts; and
- to encourage private sector and community participation for greening in urban areas.

Transport

Hong Kong is one of the most densely populated cities in the world. A safe, efficient, reliable and environmentally friendly transport system is important to the sustainable development of the city. We will continue to press ahead with the following initiatives -

- priority for efficient and environmentally friendly transport modes;
- reduction in traffic congestion;
- better inter-modal co-ordination;
- greater emphasis on pedestrian facilities; and
- application of Information Technology (IT) to transport management.

■ ***Priority for efficient and environmentally friendly transport modes***

Railways are environmentally friendly, safe, efficient mass carriers in Hong Kong, carrying about 37% of our public transport passengers. With the commissioning of the Ma On Shan Rail and Disneyland Resort Line in December 2004 and August 2005 respectively, the length of the Kowloon-Canton Railway (KCR) system and Mass Transit Railway (MTR) system stood at 113 km and 91 km respectively. The railway network will be further expanded to over 210 km through the addition of the KCR Sheung Shui to Lok Ma Chau Spur Line in 2007.

Railway Development Strategy 2000 has recommended, in addition to a Port Rail Line for freight traffic, the implementation of five passenger lines as follows -

- Shatin to Central Link ;
- Kowloon Southern Link;
- Island Line Extensions;
- Northern Link; and
- Regional Express Line, i.e. the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link.

The construction of the Kowloon Southern Link has commenced since September 2005 whereas the West Island Line of the Island Line Extensions is now at its preliminary design stage. The South Island Line of the Island Line Extensions is under review. The Government is considering the proposals on the Northern Link and the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link submitted by Kowloon-Canton Railway Corporation (KCRC) in 2005 and will decide the way forward in early 2006. As regards the Shatin to Central Link, the Government is now considering the proposal submitted by KCRC and that in the report on a possible merger submitted jointly by KCRC and MTR Corporation Limited. Completion of these railway projects will further increase the railway share of the public transport market.

To ensure that resources for railway projects are effectively invested, the Government reviews from time to time the priority of the railway projects on the drawing board taking into account changes in the community's transport needs, population projection and land use planning. To this end, the Government decided in January 2003 to defer the implementation of the North Island Line of the Island Line

Extensions.

With our policy that railways would become the backbone of the passenger transport system, the Government will continue with its efforts to enhance the co-ordination between railway and other public transport modes to avoid wasteful duplication of public transport resources and alleviate traffic congestion. Railway developments and supportive infrastructure will be designed and built to better serve community needs. The provision of the new interchange subway system in East Tsim Sha Tsui between the KCR East Tsim Sha Tsui Station and the MTR Tsim Sha Tsui Station is a case in point.

■ ***Reduction in traffic congestion and better inter-modal co-ordination***

To reduce traffic in busy areas and hence the impact on the environment, we have taken the following measures -

- implementation of more bus-bus, bus-rail and green minibus-rail interchange schemes;
- rationalization of bus routes and stops; and
- introduction of Park-and-Ride schemes by railway corporations.

Bus-bus interchange schemes

Bus-bus interchange schemes are pursued as one of the measures to achieve more efficient use of bus resources, relieve congestion, minimize environmental impact on busy corridors, and reduce the need for long-haul point-to-point bus routes.

Up to end 2005, a total of 191 bus-bus interchange schemes offering fare concessions of \$0.1 to \$28 to passengers had been implemented. Through the provision of fare discount incentives and selection of convenient interchanging locations, the implementation of these schemes is well received by the public. On average, some 110,000 passengers use these interchanges everyday. The schemes have also improved the bus network and facilitated inter-district travel whilst minimizing the need for introducing additional bus routes.

Bus-rail and green minibus-rail interchange schemes

To promote the interchange between rail and other public transport modes, interchange discount concessions in the form of bus-rail interchange (BRI) and green minibus-rail interchange (GRI) schemes have been introduced. As at end 2005, three franchised bus routes, one cross-boundary bus route and 20 green minibus routes were offering fare concessions of \$0.3 to \$5.0 to passengers involved in the BRI and GRI schemes for MTR. Three franchised bus routes and 31 green minibus routes with fare concessions of \$0.3 to \$3.5 to passengers were involved in the BRI and GRI schemes for the KCR West Rail, East Rail and Ma On Shan Rail.

Rationalization of bus routes and stops

To improve the efficiency of bus operation and to alleviate their traffic and

environmental impact, the Government has been working together with the franchised bus companies to rationalize bus services and improve bus stopping arrangement.

Through route amalgamation, truncation, modification and frequency adjustment, about 660 bus trips passing through Central and 150 bus trips passing through Yee Wo Street per day were removed in 2005. On the Kowloon side, about 350 bus trips were removed from Nathan Road.

Moreover, the implementation of bus stop rationalization schemes has reduced about 30 bus stoppings per peak hour between Central and Causeway Bay.

Since January 2002, bus companies have deployed only Euro II and Euro III buses on Yee Wo Street to help enhance the environment in the pedestrian-busy corridor. The Government has been working with franchised bus companies on deployment of more Euro II and Euro III buses on other busy corridors including Hennessy Road, Queensway, Des Voeux Road Central and Nathan Road. As at end 2005, about 82% of the buses deployed on the above busy corridors were Euro II and Euro III buses.

Park-and-Ride schemes

Park-and-Ride (PnR) facilities are usually provided at public transport hubs strategically located on the fringe of busy business/urban areas so that motorists can leave their cars behind and use public transport to complete their trips.

PnR schemes have been operating at Hong Kong, Kowloon and Tsing Yi Stations of Airport Express, at Choi Yuen Road near East Rail's Sheung Shui Station, at West Rail Kam Sheung Road Station, and some commercial carparks located near Olympic Station of the Tung Chung Line and Hang Hau Station of the Tseung Kwan O Line.

Apart from these schemes, PnR facilities have been planned at the existing rail station at Choi Hung. Construction of the "Choi Hung Park and Ride Public Carpark", which will provide 450 parking spaces, commenced in November 2001 with target completion in 2006. PnR facilities will also be provided in the future property developments at Tsuen Wan West Station, Kam Sheung Road Station, Tuen Mun Station and Tin Shui Wai Station of West Rail, and Wu Kai Sha Station of Ma On Shan Rail. In planning future rail stations and major transport interchanges, especially those on the fringe of the urban area, PnR facilities will be developed wherever appropriate.



Park-and-Ride Facilities

■ ***Greater emphasis on pedestrian facilities***

Promoting better pedestrian environment is one of the means to enhance the quality of life. We continued to implement additional pedestrian schemes in 2005. In Causeway Bay, the trial part-time pedestrian scheme at Pak Sha Road and a section of Lee Garden Road continued. In Mong Kok, the trial part-time pedestrian scheme at Sai Yeung Choi Street South, Nelson Street, Soy Street and Tung Choi Street is taking shape.



Pak Sha Road
(part-time pedestrian scheme)

Footpath widening is an effective means to improve pedestrian environment. We are making good progress on footpath widening works and landscaping works in various districts, including Yun Ping Road in Causeway Bay; Wo On Lane, Staunton Street, Elgin Street and Peel Street in Central; Johnston Road in Wan Chai; Nanking Street and Pilkem Street in Jordan; and Fuk Wa Street and Pei Ho Street in Sham Shui Po.



Yun Ping Road
(footpath widening)



Pilkem Street
(footpath widening and streetscape works)

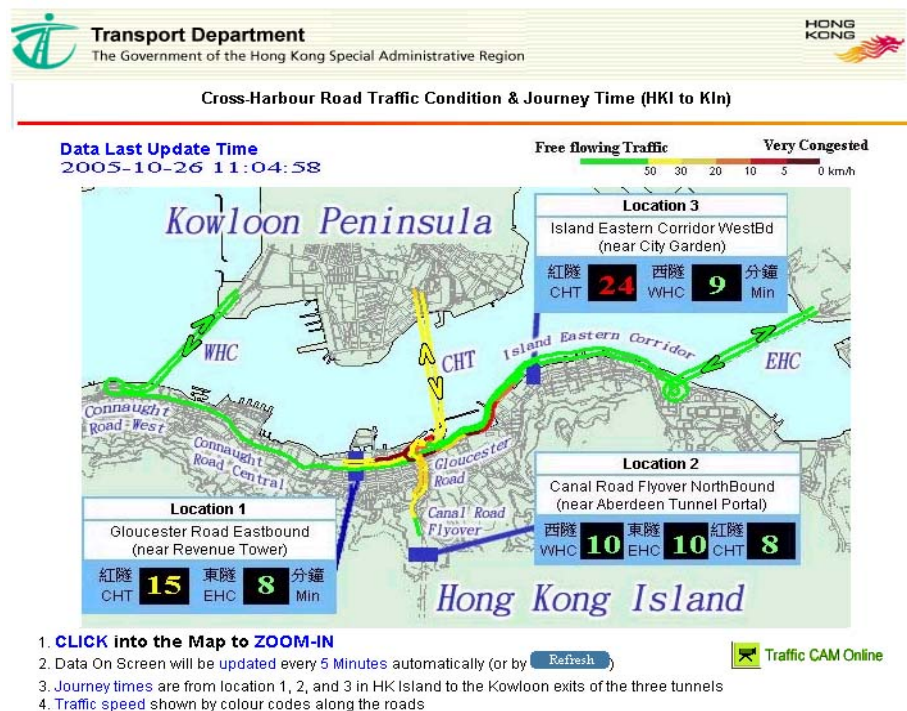
Transport Department and Planning Department have jointly commissioned a comprehensive study for Tsim Sha Tsui with the objectives of beautifying the district and improving the pedestrian environment. Detailed plans for some selected areas have been drawn up. We will collect public views on the plans in 2006.

■ *Application of IT to transport management*

We are continuing to promote the deployment of advanced information and telecommunication technologies to enhance the performance of the transport system in Hong Kong, thus reducing fuel consumption, vehicle emissions and travelling time. We enhanced the Journey Time Indication System and the Traffic Condition Service on the Internet, and continued to expand the Area Traffic Control system to other districts.

Journey Time Indication System

After commissioning the journey time indicators on Hong Kong Island in 2003, we began to disseminate information on cross-harbour journey time to the public through the Transport Department's website in 2005. Traffic speeds along the key routes on the Hong Kong Island to the three cross-harbour tunnels and inside the tunnels are also shown in the same webpage to inform the public of the real-time traffic conditions.



Webpage Layout of the Journey Time Indication System

Traffic Condition Service on the Internet

Since 1999, images captured from the closed-circuit television (CCTV) cameras at various strategic locations on the road network have been broadcast to the public via the Internet. The service is well received by the public. In mid 2005, the number of CCTV images available on the Internet was increased from 117 to 119 to cover the new road network in Penny's Bay of Lantau.

Area Traffic Control system

In view of the significant benefits of the Area Traffic Control (ATC) system in optimizing the utilization of road capacity, minimising traffic delay and reducing vehicle emission, the system was expanded to Tai Po and North districts in 2005 and will be further expanded to Tuen Mun and Yuen Long districts by 2008. Works are also in progress to replace the existing ATC system on Hong Kong Island by a new state-of-the-art system to enhance performance.

6. GREEN OFFICE MANAGEMENT

It is always the mission of ETWB to improve and conserve our environment, and to optimize the use of resources to reduce pollution and waste. We strive to implement various green housekeeping measures in daily office operations with a view to maintaining a green workplace and setting a good example for other bureaux and departments. Our main focus of the green office management is on reducing paper and energy consumption.

Managing Paper Consumption

With the advocacy of environmental conservation over the past few years, staff awareness on paper saving has been highly enhanced and staff members have developed good practices by adopting the following green initiatives:

- use recycled paper in office operations;
- print and photocopy on both sides of paper;
- reuse single-side used paper for drafting, printing and receiving fax;
- reuse envelopes and loose minute jackets for internal transmission of documents and correspondence;
- communicate and disseminate information by electronic means within bureaux/ departments as well as with members of the public;
- avoid printing or photocopying documents unless hard copy is absolutely necessary;
- distribute softcopies by emails, diskettes or CD-ROMs instead of print-outs;
- upload reports, circulars and other publicity materials on e-bulletin board, intranet and internet website for general reference; and
- send electronic greeting cards instead of paper ones at festive seasons.

The implementation of the above green practices has brought a positive impact on the total paper consumption (7993 reams) in 2005, which represents a significant reduction of 19% as compared with that in 2002. Indeed, we have succeeded in reducing the paper consumption for 3 consecutive years and the reduction has far exceeded our target of a further 10-12% decrease as set by the Administration. Nonetheless, we should not be complacent and will continue to explore other feasible ways to achieve a further reduction in paper consumption.

In 2004, the Electronic Document Management System (EDMS) was first implemented in Works Branch. This system aims at maintaining good file record by electronic means rather than bulky hard copies. As this would effectively reduce paper

consumption in the long run, our IT colleagues are now working full speed to upgrade the system by including confidential file records and extend the function to “flimsy” circulation. We trust that this system would be widely utilized in the Bureau in the near future with the ultimate objective of achieving a paperless environment.

Apart from EDMS, electronic fax function is another means of paper saving. It was introduced to the Environment Branch in 2004, and extended to the Transport Branch in late 2005. The additional device will help further reduce printing of papers. Our target is to fully implement this function in the Bureau in 2006.

Managing Energy Consumption

In response to the appeal by the Permanent Secretary for the Environment, Transport and Works (Environment) in 2004 on energy conservation, our management has exerted great effort in promoting and encouraging staff cooperation in electricity saving.

Since air-conditioning accounts for about half of the total electricity consumption in a building and it is commonly acknowledged that raising the room temperature by each degree can reduce the total energy consumed of a building by about 1.5%, we have hence appealed to all staff to maintain the air-conditioned room temperature at 25.5°C as far as practicable. To enhance staff awareness on keeping the room temperature at 25.5°C, we have arranged to distribute mini thermometers to staff as well as to install wall-mounted thermostats at conspicuous locations areas to remind staff of the need to maintain the room temperature at appropriate level.

From July to Sept 2005, we organized again the popular energy saving campaign - Light Dress Months. Staff members were encouraged not to wear suits and ties during the hot summer in order to save the need to switch on excessive air-conditioning. Posters were designed to appeal for staff cooperation. The event was highly supported by our senior management and well received by colleagues at all levels. In view of the encouraging responses, we have already decided to extend the period of the campaign from three to four months in the coming year, i.e. commencing from June 2006.

In his 2005 Policy Address, the Chief Executive urged all Government offices and buildings to achieve the target of reducing the total electricity consumption by 1.5% annually starting from 2006. To meet the pledge, we have adopted the following energy saving measures:

Energy Saving Measures Taken	
Lighting	<ul style="list-style-type: none"> • turn off some lighting when the occupancy is low, e.g. after office hours, on Saturdays; • switch off unnecessary lighting in communal areas, such as reception counters, corridors, lift lobbies, etc., during lunch and after normal office hours; and • reduce the use of high power incandescent lamps.

Energy Saving Measures Taken	
Air-conditioning	<ul style="list-style-type: none"> • reduce daily central air-conditioning provision hours by ½ and ¾ hour in summer and winter time respectively; • keep room temperature at 25.5°C; • turn off some air-conditioning units when the occupancy is low, e.g. during lunch, after office hours, on Saturdays; • switch on air-conditioning for pre-cooling no earlier than 15 minutes before conference rooms are to be occupied and switch off as soon as the room is unoccupied; • open windows to allow natural ventilation instead of turning on air-conditioning units during cold season, if applicable; • dress lightly to minimize use of air-conditioning in hot months; and • lower window blinds or curtains before leaving office to reduce direct sunlight on the following day.
Computers	<ul style="list-style-type: none"> • activate the standby mode or hibernation mode features of personal computers; • switch off the monitors during lunch and when the staff is away from the workplace for meeting, albeit a short one; • switch off personal computers (including both monitor and CPU) after office hours; and • switch off non-essential servers at night, on Saturday afternoons and public holidays.
Others	<ul style="list-style-type: none"> • appoint energy wardens and assign last-man-out to check the effectiveness of energy saving measures; • encourage staff to walk up or down one or two storeys rather than using the lift; and • consult the advice of EMSD staff to explore feasible energy saving opportunities.

Green Purchasing

“Green” stationery items supplied by the Government Logistics Department, such as clutch pencils, refillable ball pens, recycled pencils, correction fluid and furniture made of chip board, are now widely used in ETWB. Other green items e.g. recyclable laser printer toner cartridges and box files made of recycled paper are also ordered from contractors for office use. In 2005, more than 90% of laser printer toner cartridges used in this Bureau were recyclable.

It has all along been our practice to purchase office equipment such as photocopiers and printers with Energy Efficiency label. Unnecessary packaging is discouraged in support of environmental conservation. We also use e-tender whenever applicable.

Maintaining Good Air Quality

Carpet cleaning and overhaul/cleaning of fan coils are now carried out biannually and annually respectively to maintain a satisfactory level of indoor air quality in our office.

To avoid polluting the outdoor air, we have constantly reminded our drivers to turn off idling engines and used only ultra-low sulphur diesel and lead-free petrol in all of our departmental vehicles. Our vehicles are also under regular maintenance to prevent excessive emissions.

Staff Awareness

The support and cooperation from staff members are always the key to the success of our green office management. Apart from the regular re-circulation of the relevant guidelines on paper and energy saving, we have from time to time actively encouraged our staff to support the green activities organized by other government departments and organizations, such as Green Power Hike, The Community Chest Day, etc. These would enhance their awareness on environmental protection and green management. For the years to come, we will continue to work closely with our staff with a view to fostering a green culture in our Bureau and ensuring that our offices operate in an environmentally responsible manner.

7. VIEWS AND SUGGESTIONS

If you have any views and suggestions in connection with this Environmental Report, you are welcome to contact us via email at etwbenq@etwb.gov.hk or by fax on 2869 6657 or write to us at 10/F., Murray Building, Garden Road, Central, Hong Kong.