

2006 Environmental Report

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

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2006 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 by the Environment Protection Department (EPD), the Transport Branch (TB) and the Works Branch (WB). On the part of the environmental performance of EPD, 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, TB and WB of the Bureau oversee 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. Environmental Policy

The mission of ETWB is to improve and conserve our environment and to optimize the use of resources to reduce pollution and waste. In planning our transport systems and implementing public works, we require ourselves and our agents to minimize any possible environmental impacts.

3.

KEY RESPONSIBILITIES OF THE TRANSPORT BRANCH AND WORKS BRANCH OF 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 BRANCH AND WORKS BRANCH OF ETWB

In discharging our policy responsibilities, 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 devise measures to enable public works projects be carried out to the latest environmental standards, 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 BRANCH AND WORKS BRANCH OF 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 2005 and 2006, we achieved good progress towards water conservation through continued implementation of the following measures -

- education and publicity programmes for promoting 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.

The water supply agreement between Guangdong and Hong Kong authorities signed in April 2006 has given Hong Kong flexibility in receiving water from Dongjiang that help conserve water for the Pearl River Delta. In addition, we have commissioned pilot schemes in Ngong Ping and Shek Wu Hui for recycling treated sewage effluent for toilet flushing, irrigation and other non-potable uses.



Open day for Ma On Shan Water Treatment Works in 2006

In the coming year 2007, the following initiatives on conservation and management of water resources will be pursued -

- complete the pilot desalination plant study after two years' trial operation at Tuen Mun and Ap Lei Chau 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
- continuing a consultancy study on the engineering strategy of total water management for Hong Kong.

Energy Efficiency and Conservation

□ *Water-cooled air-conditioning systems*

In collaboration with the relevant government departments, a pilot scheme was introduced 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 2006, 79 areas have been identified where such systems can be used as compared to six when the scheme was first launched in 2000. We have received over 250 applications for installation of the water-cooled air-conditioning system. So far, 65 installations have been completed and all were reported to be

running in good conditions. When all the applications are approved and implemented, it is estimated that the energy consumption will be reduced by 200 million kilowatt per year, (or a reduction of about HK\$180 million in the electricity cost) and carbon dioxide emission will be lowered by 140,000 tonnes per year¹. 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 Adverse Environmental Impact by Public Works Policies

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.

Policies

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

Environmental Management

- 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;
- 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;
- specifications have been promulgated to promote the use of recycled aggregates in filling works, road sub-base construction and concrete

¹ With effect from 1 January 2007, the electricity savings of existing buildings with air-cooled installations converted to water-cooled installations and new buildings adopting water-cooled installations are estimated to be 28 kilowatt-hour per m² per year.

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;

- to achieve sustainable development, public works projects will incorporate energy efficient features and renewable energy technologies where practicable;
- 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;
- contractors are also required to appoint an ‘environmental officer’ to oversee the implementation of the EMP;
- 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;
- all capital works contracts are to implement on-site sorting of construction waste to maximize the recovery of reusable construction waste for recycling; and
- to ensure proper disposal of construction waste, we implement the “trip ticket” system to track and monitor the disposal process for preventing illegal dumping.

□ ***Enhancing contractor’s environmental performance***

Contractor’s environmental performance has a major impact on the successful implementation of our environmental policies. 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 reduced significantly the amount of public fill (e.g. soil, broken rock and broken concrete etc) generated from public works contracts from about 11 Mt in 2005 to about 5 Mt in 2006;
- we incorporated the use of recycled materials (e.g. recycled aggregates and recycled asphalt etc.) in the General Specification for Civil Engineering Works, in order to promote their wider use in public works contracts; and
- we designed all new government buildings to comply with the Building Energy Codes issued by the Electrical and Mechanical Services Department as the minimum energy performance standard for energy efficiency.

Targets

- develop a framework for sustainable construction;
- draw up an environmental “score card” system to facilitate a systematic assessment of the contractor’s environmental performance in public works contracts;
- set out separate items in tender evaluation (e.g. marking scheme) to promote the use of environmental products in construction works;
- 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 and refine the operation of environmental management measures on public works sites.

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 three working committees, including the Greening Master Plan Committee, the Community Involvement Committee on Greening, and the Works and Maintenance Committee on Greening.

To facilitate the effective planning and monitoring of progress, we will compile a greening programme each year. We have planted about 9 million plants in 2006.



Greening work at Trunk Road T7 – Ma On Shan

□ ***Greening Master Plans***

The Greening Master Plan Committee has been set up to coordinate the preparation of Greening Master Plans (GMPs) and the implementation of related greening measures for selected urban areas. A GMP seeks to define the overall greening framework of an area by identifying suitable locations of planting together with desirable themes and species, thus serving as a guide to the planning, design and implementation of greening works for continuous and consistent results. In recognition of the fact that greening opportunities arise under different timeframes, GMPs will embody a full spectrum of short, medium and long-term measures.

The GMPs for Central and Tsim Sha Tsui were drawn up in mid-2005. Works associated with short-term greening measures of GMPs for Central and Tsim Sha Tsui are in progress for completion in mid 2007.

Studies on development of GMPs for Sheung Wan/Wan Chai/Causeway Bay and Mong Kok/Yau Ma Tei have commenced in January 2007 for completion in early 2008. Subject to funding approval, the GMPs for remaining urban areas are scheduled for completion by mid 2009. A programme is also being drawn up in regard to districts in the New Territories.



Before



After

One of the Greening Enhancement Schemes at Chatham Road South

□ ***Coordinated efforts***

We will enlist community support for greening as well as collaborate with private sector organisations to beautify cityscape.

□ ***Tree preservation***

A comprehensive range of legislative and administrative measures are already in place. In addition, we have compiled a register of old and valuable trees to protect trees of special value on government land. We have promulgated a technical circular in May 2006 in respect of an enhanced tree preservation strategy setting out control framework for tree preservation and strengthening tree felling procedures. 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.

Apart from training government front-line staff to further enhance their knowledge in tree protection, we have liaised with the Construction Industry Training Authority to provide training courses starting from November 2006 on horticultural work for landscape workers and supervisors in order to further enhance the quality of our workforce.

□ ***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. Hence, landscape treatments are provided to all man-made slopes upgraded under the Landslip Preventive Measures (LPM) Programme. From 2003 to 2006, 65% of the slopes upgraded under the LPM Programme used vegetation cover as slope surface protection.



Greening work on one of the LPM slopes – Tsing Yi

The Civil Engineering and Development Department continues the study on establishment of robust, cost-effective and eco-friendly vegetation covers on man-made slopes. Trial planting of native vegetation species on LPM slopes is on-going. The performance of the planted species at these trial sites is being monitored.

□ ***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.



Quarry rehabilitation work in progress

□ ***Targets for 2007***

- To plant about 7 million trees, shrubs and annuals with about 80% of them in urban areas;
- to further enhance the management of urban greenery and shift the focus to quality planting in focal points/locations;
- 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 and efficient mass carriers in Hong Kong, carrying about 35% 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 (PRL) for freight traffic, the implementation of six passenger lines, as follows -

- Kowloon Southern Link (KSL);
- Shatin to Central Link (SCL);

- West Island Line (WIL);
- Northern Link and the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (NOL/ERL);
- South Island Line; and
- North Hong Kong Island Line (NIL).

The construction of the KSL has commenced since September 2005. As regards the SCL, the Government is examining the project in the light of, among others, the Kai Tak Planning Review, the Wan Chai Development Phase II Review and the impending merger of the two railway systems. For the WIL, the MTR Corporation Limited submitted a Revised Project Proposal in August 2006. The Government is examining the proposal in particular its transport and economic performance, as well as its financial implications. Regarding the NOL/ERL, the Government has already invited the KCRC to proceed with the further planning work of these two projects. The KCRC is currently conducting a consultancy study and preliminary site investigation of the projects. As for the SIL, the Government is looking at its possible impact on other public transport modes. The Government will consider the way forward for the proposed SIL with due regard to the study results and public views. The NIL and PRL are under review in light of future demands.

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.

With our policy for better use of railways as 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 2006, a total of 216 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 120,000 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 2006, four franchised bus routes, one cross-boundary bus route and 27 green minibus routes were offering fare concessions of \$0.3 to \$5.0 to passengers involved in the BRI and GRI (ranged \$0.3 to \$1.0) schemes for MTR. Three franchised bus routes and 30 green minibus routes with fare concessions of \$0.3 to \$3.5 to passengers were involved in the BRI and GRI (ranged \$0.3 to \$1.0) 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 90 bus trips passing through Central and 60 bus trips passing through Yee Wo Street per day were removed in 2006. On the Kowloon side, about 120 bus trips were removed from Nathan Road.

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 above buses on other busy corridors including Hennessy Road, Queensway, Des Voeux Road Central and Nathan Road. As at end 2006, about 86% of the buses deployed on the above busy corridors were Euro II and above 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, "Choi Hung Park and Ride Public Carpark", a new PnR facility providing 450 parking spaces, has commenced service in March 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 2006. In Causeway Bay, the part-time pedestrian scheme at Pak Sha Road and a section of Lee Garden Road has been implemented after completion of the trial scheme in November 2006. 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)**



**Sai Yeung Choi Street South
(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 Johnston Road in Wan Chai; Pilkem Street in Jordan; and Fuk Wa Street and Pei Ho Street in Sham Shui Po.



Johnston Road
(footpath widening)



Fuk Wa Street (footpath widening and
streetscape works)

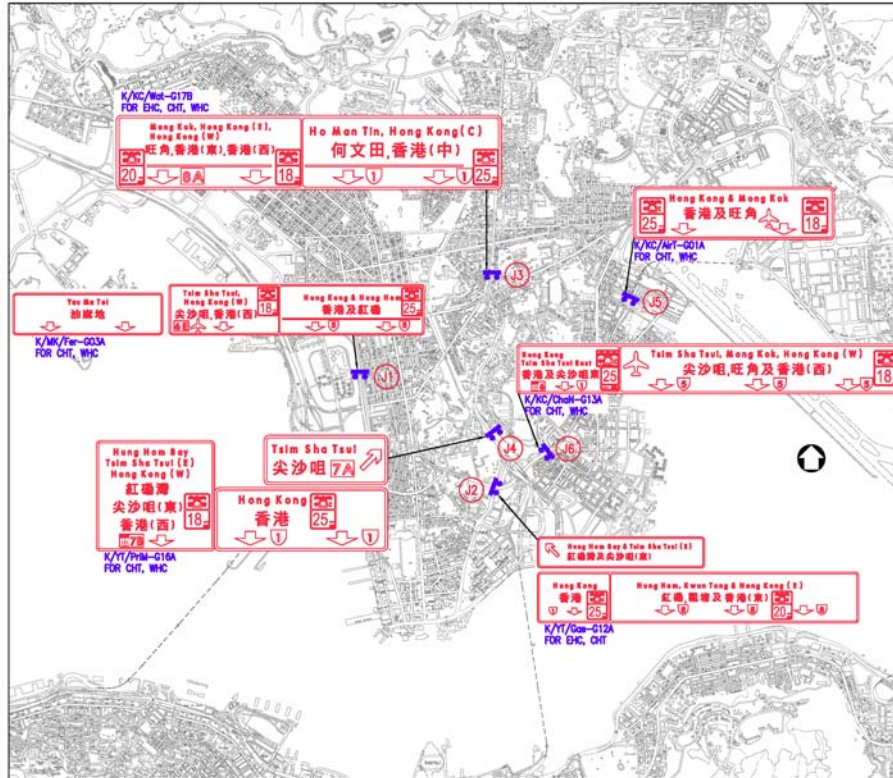
Transport Department and Planning Department have jointly commissioned a comprehensive study for Tsim Sha Tsui with the objectives of beautifying the district and improving the pedestrian environment. After receiving initial views from the public, a series of improvement schemes are being formulated. We will further consult the relevant stakeholders before implementation.

□ ***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

In the light of the satisfactory performance of the Journey Time Indication System on Hong Kong Island, we will expand the system to Kowloon side. The system will provide the latest traffic situation for motorists crossing the harbour from Kowloon side so that they can make informed choices of the route and avoid congested tunnels. The journey time and average vehicle speed along major tunnel approach roads in Kowloon will also be shown on Transport Department's website. The project is planned to commence in end 2007 for completion in mid 2009.



Proposed Locations of Journey Time Indicators in Kowloon

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 2006, the number of CCTV images available on the Internet has been increased to 120.

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. In 2006, we have replaced the ATC system on Hong Kong Island with a new state-of-the-art system to enhance performance. Similarly, the existing ATC system in Kowloon, Sha Tin and Tsuen Wan districts will also be replaced.

6. GREEN OFFICE MANAGEMENT

As mentioned in the Chapter of Environmental Policy, it is our mission 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

In 2003, to demonstrate Government's commitment to protect the environment and to reduce public expenditure, the Policy Committee decided that taking Financial Year (FY) 02-03 as the base year all Bureaux and Departments should aim to cut down respectively in FY 03-04, 04-05, 05-06 and 06-07 their photocopying paper consumption in ream by 2.5%, 5%, 7.5% and 10%.

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 habits practices by adopting of 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; and
- upload reports, circulars and other publicity materials on e-bulletin board, intranet and internet website for general reference.

The implementation of the above green practices has brought a positive impact on the total paper consumption from 2003 to 2006 as shown below :

Year	2002/03	2003/04	2004/05	2005/06	2006/07
Total Paper Consumption (Reams)	9421	7421	8667	7877	8101
Reduction of paper consumption as compared with 2002/03	-	21.2%	8.0%	16.4%	14.0%

Indeed, we have succeeded in reducing the paper consumption for 4 consecutive years and the reduction has far exceeded the target set by the Administration.

Nonetheless, we would not be complacent with the achievement and will continue to explore other feasible ways to attain a further reduction in paper consumption, like the upgrading of the Electronic Document Management System by including confidential file records and extend the function to “flimsy” circulation in 2007. We trust that the additional electronic devices will help further reduce printing of papers.

Managing Energy Consumption

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. during lunch and after office hours; • switch off unnecessary lighting in public 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.
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; • 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;

Energy Saving Measures Taken	
	<ul style="list-style-type: none"> • switch off personal computers (including both monitor and computer processing unit) after office hours; and • switch off non-essential servers at night, on Saturday 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.

The adoption of the above energy saving measures has contributed positively to the significant savings of the total electricity consumption of Murray Building (MB) where ETWB is one of the major tenant occupying office spaces from 10/F to 16/F and part of 21/F. The electricity consumption of MB in 2006 is 6880170 kWh, which represents a substantial reduction of 4.5% as compared with that in 2005. The reduction has far exceeded the 1.5% target.

Green Purchasing

“Green” stationery items supplied by the Government Logistics Department, such as clutch pencils, refillable ball pens, recycled pencils 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 2006, more than 90% of laser printer toner cartridges used in this Bureau were recycled.

It has all along been our practice to purchase only office equipment such as photocopiers and printers with Energy Efficiency label. We also use e-tender whenever applicable.

Staff Awareness

The support and cooperation of 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, 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 and ensuring that our offices operate in an environmentally responsible manner.

7.

ACTION BLUE SKY CAMPAIGN

A massive publicity campaign, called Action Blue Sky, was kicked off by the Chief Executive in July 2006. He reiterated the Government's determination to improve Hong Kong's air quality. He further said that every small step taken by each individual to support the clean-air initiatives in their daily lives could help reduce air pollution.

To show our support to the campaign, apart from maintaining our energy savings efforts in reducing the electricity consumption, 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.

8.

IEWS 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.