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Transport Department

Environmental Report 2019

FOREWORD

The Transport Department is fully committed to environmental protection. We are conscious of the commitments under the Clean Air Charter and have been working whole-heartedly to improve air quality by taking proactive measures to mitigate the air pollution generated from our transport system. We have also exerted influence over our business partners in the transport sector, for example, franchised bus, public light bus and taxi operators, to encourage them to join us in pursuing the wide range of measures aimed at protecting the environment.

We will continue to strive for achievement of our Departmental Vision, viz.*"we will provide the world's best transport system which is safe, reliable, efficient,* ***environmentally friendly*** *and satisfying to both users and operators"*. In this issue of our Environmental Report we aim to advise the readers what have been done in 2019 by or through the Transport Department to improve the quality of our living environment.

ABOUT THIS REPORT

This Environmental Report covers the period from 1 January 2019 to 31 December 2019. It is published in electronic version on our web site for the sake of reducing paper consumption. Its target readers are members of the general public. The readers will be informed of the business of our Department, the efforts we have made and the measures we have taken to protect the environment.

Any suggestions or comments on this report are most welcome and can be sent to tdenq@td.gov.hk.

ABOUT TRANSPORT DEPARTMENT

Our Department is responsible for the implementation of the Government's transport policy under the following 5 programme areas:

(i) Planning and Development;
(ii) Licensing of Vehicles and Drivers;
(iii) District Traffic and Transport Services;
(iv) Management of Transport Services; and
(v) Transport Services for People with Disabilities.

Our headquarters are located in the South Tower of West Kowloon Government Offices in Yau Ma Tei. We also have some 16 sub-offices accommodated in other government offices or private commercial buildings. As at the end of 2019, we had an establishment of 32 directorate posts and 1,785 non-directorate posts. In our daily business, we manage or operate the following main types of facilities:

(i) public transport interchanges/termini;
(ii) vehicle inspection centres;
(iii) driving test centres;
(iv) traffic lights;
(v) escalators;
(vi) CCTV and variable message signs;
(vii) intelligent transport systems; and
(viii) roads and pedestrian facilities.

Besides other government departments, our business partners include the operators of franchised and non-franchised buses, tram, taxi, ferry and public light buses. We also run maintenance, operation and management contracts with the various tunnel and Government carpark operators.

ENVIROMENTAL GOAL

Our environmental goal is to provide an environmentally friendly transport system in Hong Kong.

ENVIRONMENTAL POLICY

We are committed to providing a transport system in an environmentally acceptable manner to align with the sustainable development of Hong Kong.

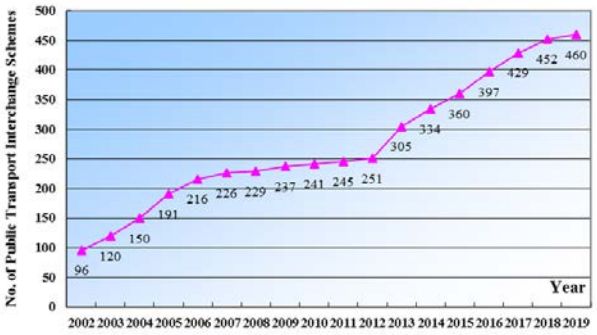
ENVIRONMENTAL OBJECTIVES

Environmental Objective No. 1 - Reduction in Vehicular Traffic

In managing the public transport system, we coordinate the roles played by the various public transport modes, including the rail, bus, tram, public light bus, taxi, ferry etc., so as to achieve the highest possible overall efficiency. This includes rationalizing public transport services to improve accessibility whilst avoiding duplication and raising the level of service to improve attractiveness. In the end, it helps to reduce vehicular traffic and mitigate air pollution. With these benefits in mind, we made our best efforts to enhance the efficiency of the transport system in the following ways:

(i) Implementation of public transport interchange schemes

The introduction of interchange schemes enables passengers to make the most efficient use of the transport system across different modes. They include bus-rail interchange, green minibus-rail interchange, taxi-rail interchange, green minibus-bus interchange, tramway-bus interchange and bus-bus interchange schemes. The numbers of bus-bus interchange schemes implemented since 2002 are shown in the graph on the right.

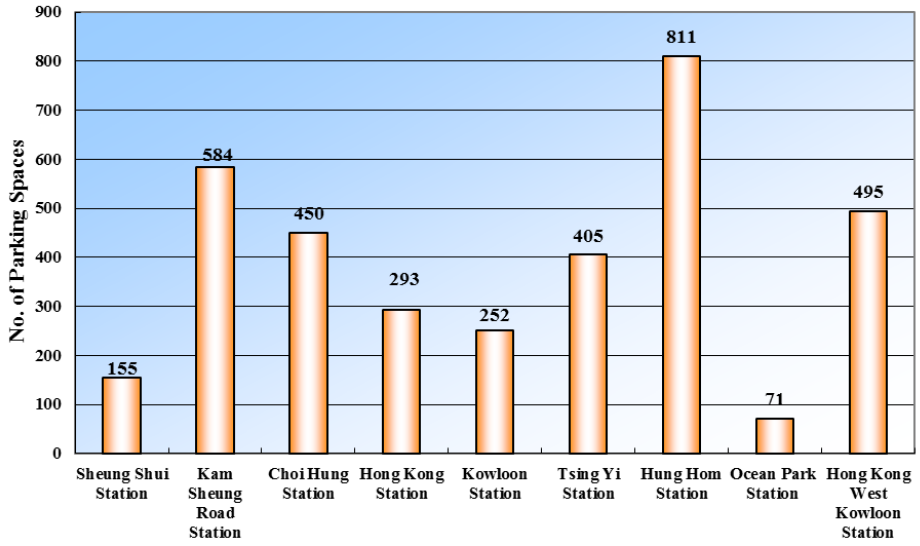


(ii) Rationalization of bus routes and stops

This process includes amalgamation, truncation and modification of bus routes, re-location of bus stops and adjustment of bus schedules to match the prevailing passenger demands. The resulting arrangements can help to reduce traffic congestion. Between 2010 and 2019, the cumulative reduction of the number of bus trips in the busy corridors in Central, Causeway Bay and Yau Tsim Mong was 5,752.

(iii) Provision of park-and-ride (PnR) facilities

These facilities are carparks provided near railway stations. People can shorten their private car trips and switch to the rail for the major part of their journeys. The numbers of parking spaces provided in some PnR facilities are shown in the graph below.



(iv) Provision of bicycle parking spaces

In the New Territories, we monitored the demand for bicycle parking spaces, and made provisions close to railway stations to enable bicycle riders to change to the rail and other public transport. There were a total of about 18,500 bicycle parking spaces provided close to railway stations and public transport interchanges, out of a total of about 38,900 bicycle parking spaces managed by our Department in Hong Kong.

Environmental Objective No. 2 – Tightening Vehicle Emission Control

(i) Tightening vehicle emission standards for motor vehicles

All motor vehicles seeking first registration in Hong Kong must comply with the statutory vehicle emission standards. The vehicle emission standards for first registered vehicles (except for diesel private cars, buses with a design weight of not more than 9 tonnes, light buses with a design weight of more than 3.5 tonnes, motorcycles and tricycles) have been tightened by phases according to vehicle class from Euro V to Euro VI starting from 1 July 2017. The emission standards for first registered diesel private cars were also tightened from California LEV II to LEV III on 1 October 2017.

(ii) Reducing emissions from franchised buses

In order to reduce emissions from the franchised buses, the Government is preparing to fully subsidise a trial of retrofitting dominant Euro IV and Euro V bus models with enhanced selective catalytic reduction (SCR) systems to confirm the emission performance of this technology in Hong Kong.

(iii) Tightened emission requirements of franchised bus low emission zones (FBLEZs)

The emission requirements of franchised buses plying through the FBLEZs in Central, Causeway Bay and Mong Kok were tightened to Euro V from 31 December 2019.

(iv) All private cars, taxis, light buses, goods vehicles, buses and special purpose vehicles

We required them to pass smoke or emission tests during their annual inspection. We also selected about 5% of the diesel vehicles per day to undergo the dynamometer smoke test at the Kowloon Bay Vehicle Examination Centre.

Smoke Test

We have also been implementing a series of other measures to reduce vehicle emissions so as to better protect public health. Key measures include:

- launched an incentive-cum-regulatory scheme to progressively phase out some 82,000 pre-Euro IV diesel commercial vehicles (DCV) by mid 2020;
- prepared a new incentive-cum-regulatory programme to progressively phase out by the end of 2027 some 40,000 existing Euro IV diesel commercial vehicles including diesel goods vehicles, non-franchised buses and light buses, with a view to further improving roadside air quality;
- strengthened the emission control for liquefied petroleum gas and petrol vehicles using remote sensing equipment since September 2014; and
- limited the service life of DCVs newly registered on or after 1 February 2014 to 15 years.

With the emission control measures on vehicles in recent years, roadside concentrations of key air pollutants decreased by about 30% from 2013 to 2018.

Environmental Objective No.3 - Use of Alternative Fuel Vehicles to replace Diesel Vehicles

Since February 2001, in response to our appeal, the franchised bus operators switched the fuel of all franchised buses to ultra low sulphur diesel, which could reduce particulate emission by 5 to 10%. Euro V diesel was introduced on 1 December 2007 and replaced Ultra Low Sulphur Diesel since then.

Besides, we took part jointly with other Government departments in the promotion of “cleaner” fuel such as liquefied petroleum gas (LPG) or electricity in place of diesel. Our efforts include the implementation of the following:

(i) Conversion of diesel taxis to LPG taxis and introduction of alternate fuel

As at the end of 2019, about 99% (i.e. 18,160 Nos.) of the taxis were LPG taxis. Hybrid taxis have started serving Hong Kong since 2013.

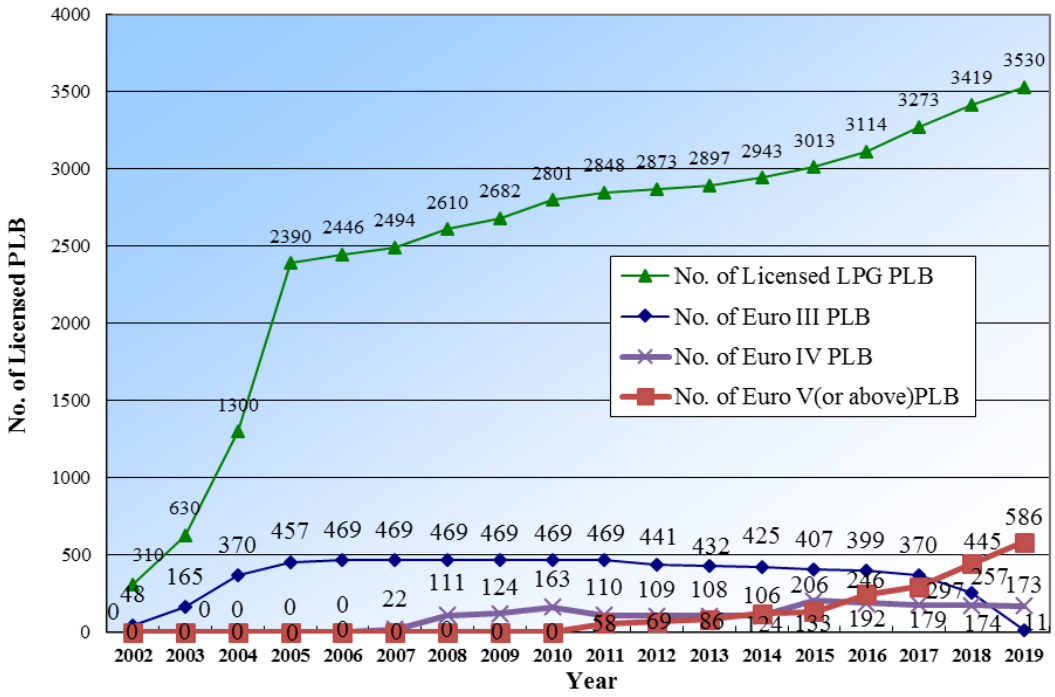
(ii) Set-up of LPG Refilling Stations

We worked jointly with other departments to facilitate the setting up of LPG refilling stations at convenient locations. Up to end 2019, there were a total of 68 LPG refilling stations in Hong Kong.

(iii) Incentive scheme for phasing out Pre-Euro IV diesel Public Light Buses

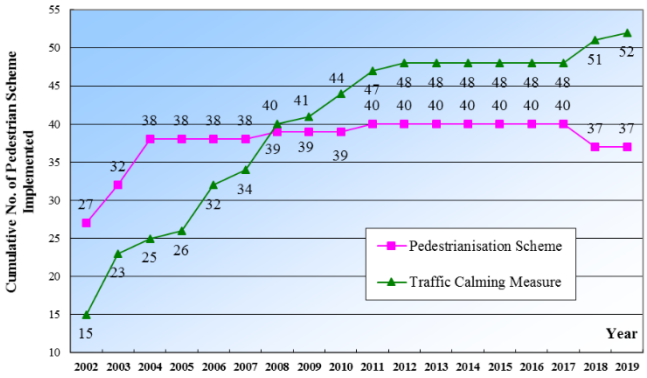
In March 2014, the Administration launched an ex-gratia payment scheme to phase out Pre-Euro IV diesel public light buses (PLBs). Eligible PLB owners can use the ex-gratia payment for buying new vehicles.

As at end of 2019, there were 3,530 licensed LPG PLBs, 11 licensed Euro III diesel PLBs, 173 licensed Euro IV diesel PLBs, and 586 EuroV or above diesel PLBs. The numbers of licensed LPG PLB, Euro III, IV and V (or above) diesel PLBs since 2002 are shown in the graph below.



Environmental Objective No. 4 - Pedestrian & Traffic Calming Schemes

These schemes have been recognized by the public since we first introduced them to busy areas like Causeway Bay in 2000. The cumulative numbers of pedestrian schemes implemented since 2002 are shown in the graph on the right.



Traffic Calming Street: Jaffe Road (near O'Brien Road)

Environmental Objective No. 5 - Enhancing Walkability

Foster "Walk in HK"

The Government has been promoting "Walk in HK" with the aim to encourage people to walk the "first mile" to and "last mile" from public transport. Promoting walkability is not only a key element in the Government's effort to combat climate change, but will also help encourage a healthy lifestyle, strengthen community interaction and build an age-friendly environment. The Government will consolidate the past efforts in promoting walkability and foster the concept of "Walk in HK" under a coordinated strategy. To this end, we are formulating planning and design standards putting priority on pedestrians and developing Hong Kong into a walkable city. Two pilot areas, namely Central and Sham Shui Po, have been selected to test out new initiatives for an enhanced and comfortable walking environment. We will implement the measures for building a pedestrian-friendly environment following the four study themes, namely "Make it smart", "Make it connected", "Make it enjoyable" and "Make it safe".

(i) "Make it smart"

We will "make it smart" by providing user-friendly information on walking routes. We launched a pilot pedestrian wayfinding signage system in Tsim Sha Tsui in July 2018, with reference to overseas experiences, providing clear and pedestrian-friendly walking maps and directional signage to enhance information dissemination on larger scale pedestrian networks. We will further develop a new pedestrian wayfinding system having regard to the experience gained from the pilot system.

(ii) "Make it connected"

To "make it connected" by enhancing the pedestrian networks, we have been taking forward initiatives to provide a continuous east-west walkway from Wan Chai to Sheung Wan through effective linkages between the existing walkway systems in Central, Admiralty and Wan Chai, including a proposed elevated walkway link from Admiralty to Wan Chai Government Offices redevelopment. Moreover, we will continue taking forward the various hillside escalator links and elevator systems (HEL) projects. The Government reported the proposed revisions to the assessment mechanism established in 2009 for HEL proposals to the HEL Subcommittee of the Legislative Council in November 2019 and received the members' support. On the basis of the revised mechanism, we will conduct assessment of 114 new HEL proposals received in the past years; and carry out initial screening and detailed scoring for proposals that are within the scope of HEL so as to set priorities and recommend the first batch of HEL proposals for implementation.

(iii) "Make it enjoyable"

We will "make it enjoyable" by making walking a pleasant experience. We will investigate and implement the provision of covers to walkways connecting to public hospitals, as well as those eligible new and existing walkways progressively based on the relaxed criteria of the Transport Planning and Design Manual. Moreover, we have been taking forward the implementation of walkway cover projects nominated by the 18 District Councils.

(iv) "Make it safe"

We will "make it safe" by providing a safe and quality pedestrian environment. We will review and update the relevant planning standards and design in relation to pedestrian environment and facilities. Examples include enhanced standards for footway widths and buffer zones, pedestrian crossing facilities, traffic calming street design, and experimenting with low speed zone.

We will continue to work towards the aim of enhancing the walkability of our city for Hong Kong people to commute, to connect and to enjoy, making walking an integral part of Hong Kong as a sustainable city.

Environmental Objective No. 6 - Efficient Use of Road Space through Application of Advanced Technologies

We aim to reduce the journey times of motorists, and hence the consumption of vehicle fuel and emission of air pollutants from vehicles, through the enhancement of the efficiency of the transport network by promoting the application of intelligent transport systems in the following aspects:

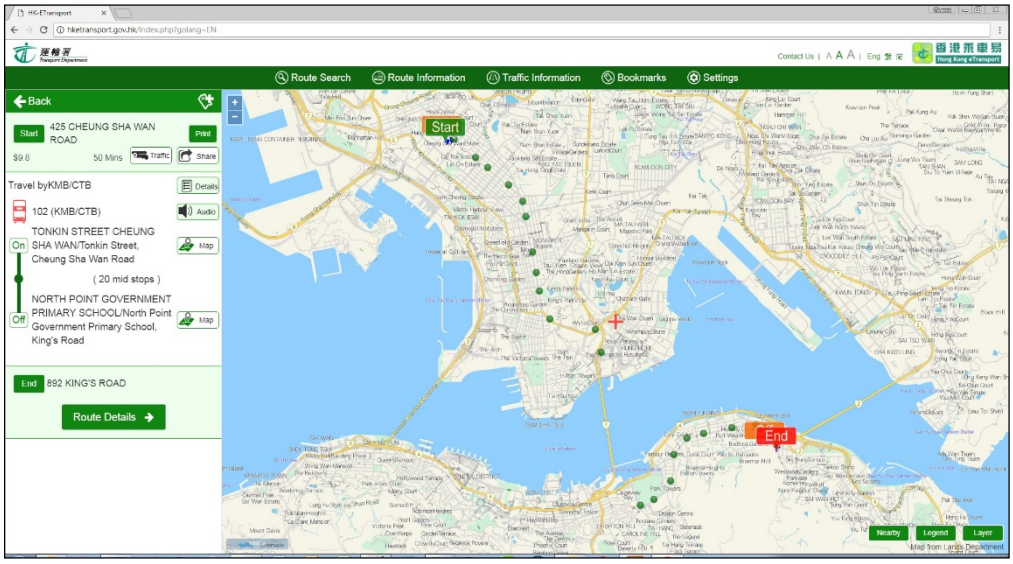
(i) Provision of Transport Information through Internet and Mobile Applications

We have been providing traffic and transport information through the Internet on our Homepage for the motorists and passengers to plan their journeys and make better use of the road network and public transport services.

To enable commuters to make better use of the public transport services, we launched Hong Kong eTransport in April 2009. It is a free one-stop multi-modal public transport route search system with map information and traffic information[1] available to the public on the Internet. We launched the mobile application and mobile web version in 2011. In Oct 2017, we launched the "Walking Route Search" function for Causeway Bay under Hong Kong eTransport, facilitating users' search of walking path and promoting walk as an environmental friendly means for commuting.

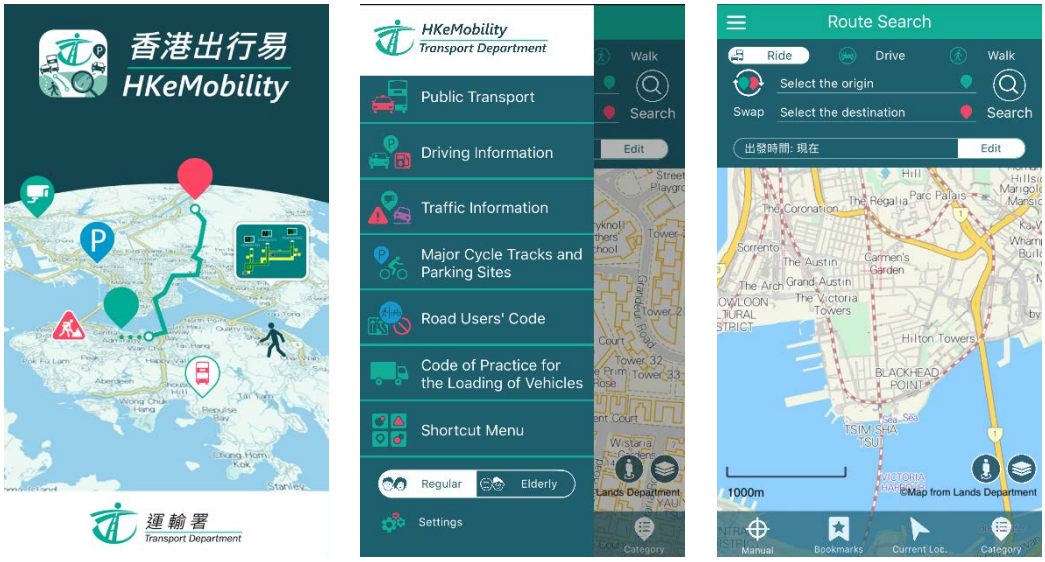
Since March 2011, we have been disseminating the above-mentioned real-time traffic information via the DATA.GOV.HK website of GovHK. Private companies have developed mobile applications using the traffic data of DATA.GOV.HK for the public.

[1] Traffic information includes Special Traffic News, Special Traffic and Transport Arrangement, Traffic Snapshot, Traffic Webcast, Cross-harbour Journey Time and Traffic Speed Map information.



Hong Kong eTransport website version

We launched Hong Kong eRouting website and mobile application in 2010 and 2011 to provide motorists driving route search with shortest distance, shortest time and lowest toll as well as real time traffic information for pre-trip planning. In July 2018, we launched an integrated mobile application "HKeMobility" to replace TD's 3 previous mobile applications, viz. "Hong Kong eRouting", "Hong Kong eTransport" and "eTraffic News", and to provide citizens more convenient and quicker one-stop search of different transportation mode, journey times and fares, real time traffic information, enabling users to plan for the most appropriate travel arrangements. As at the end of 2019, the accumulated no. of download of "HKeMobility" was over 2.18 million and the average daily hit rate was about 51,000.



HKeMobility Mobile Application

(ii) Dissemination of Real-time Traffic Information on Roads

To enhance smooth traffic flow and alleviate traffic congestion, we provided efficient traffic monitoring and incident management by installation of traffic control and surveillance (TCS) facilities in tunnels and Tsing Ma Control Area, Tsing Sha Control Area, Kong Sham Western Highway, Tuen Mun Road, Tolo Highway, Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road and Tuen Mun-Chek Lap Kok Link-Southern Connection. Real-time traffic information was provided to motorists via the TCS facilities, such as variable message signs, lane control signals, etc.

Journey Time Indication System

To facilitate the pubic to plan their journeys and select suitable routes or transport modes, we provided Journey Time Indication System (JTIS) at major divergent points towards the three cross-harbour tunnels to show the journey times from the specific divergent points to the exit portals of various cross-harbour tunnels. We also provided Speed Map Panels (SMP) at critical divergent points of strategic routes in the New Territories to show the real-time traffic conditions on the roads ahead towards Kowloon. As at the end of 2019, there were 10 sets of JTIS and 5 sets of SMP in Hong Kong. We are planning to install additional 19 sets of JTIS before the critical divergent points at major roads over the territory and enhance an existing SMP at San Tin Highway near Fairview Park, with the works scheduled for completion by end 2020.

Speed Map Panel

We have developed a Traffic and Incident Management System (TIMS) to enhance the efficiency and effectiveness in managing traffic and transport incidents and in disseminating traffic and transport information to the public. The TIMS was commissioned in 2017. With the benefit of more real-time traffic information, motorists can better plan their journeys ahead to avoid traffic congestion, thus effectively reducing their journey times.

Since March 2011, we have been disseminating real-time traffic data for free download and value-added re-use by the public through DATA.GOV.HK. We are arranging the installation of about 1200 traffic detectors on strategic routes and major roads by end 2020 to enhance the coverage of real-time traffic information.

(iii) Expansion and Operation of Area Traffic Control (ATC) Systems

In view of the significant benefits of the Area Traffic Control (ATC) system in optimising the utilisation of road capacity, minimising traffic delay and reducing vehicle emissions, we have expanded the system by phases to cover majority of the districts. Out of the 1,916 road junctions operating with traffic signals in the territory, 1,880 are under the control of ATC system. With the greater coverage of the ATC system, overall traffic delay at intersections is minimised and journey time of road users is reduced. Due to better coordination of traffic signals resulting in less stop and start activities, fuel consumption and emissions of vehicles are also reduced.

Environmental Objective No. 7 - Saving Electricity and Maintaining Good Indoor Air Quality at our Facilities

Saving Electricity at our Facilities

Our facilities that have major consumption of electricity are broadly divided into 3 categories for the sake of formulating our electricity saving measures:

(i) Category 1 including all our offices, vehicle inspection centres, and driving test centres

We adopted green office management to reduce electricity consumption in this category of facilities.

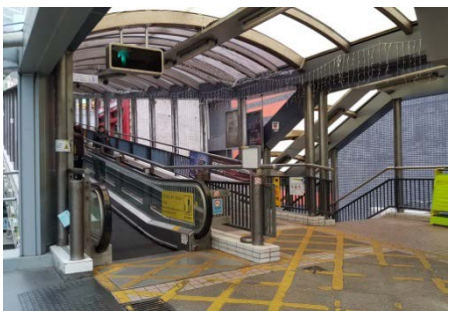
Kowloon Bay Vehicle Examination Centre

(ii) Category 2 including traffic lights, CCTV, variable message signs, intelligent transport systems and journey time indication systems, etc, that are in operation round the clock for the purpose of regulating and monitoring road traffic

To reduce power consumption, light emitting diode (LED) lights were adopted in this category of road traffic facilities.

(iii) Category 3 including escalators and public transport interchanges/terminus that serve pedestrians and public transport passengers

There is room for energy-saving but we have to strike a balance between the saving of electricity and the service to the public. The measures adopted to reduce electricity consumption by the facilities in this category include the following:



- Turning off escalators at the end of the operating period
- Turning off the ventilation and part of the lighting of the public transport interchanges/termini as soon as the public transport services cease every night
- Using lighting of low power consumption rating
- Maintaining the ventilation systems properly for them to work efficiently in respect of power consumption

The situation of electricity consumption of the above category 1[2] and 3 facilities since 2008 is shown in the following table:

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electricity consumed (kWh)	3,394,615	3,326,832	3,186,493	2,986,255	2,652,430	2,776,030	2,716,586	2,787,039	3,037,216	2,725,799	2,558,874

Maintaining Good Indoor Air Quality at our Facilities

In 2003, EPD launched the Indoor Air Quality (IAQ) Certification Scheme to promote and commend good IAQ management practice.

The following eligible premises of TD have joined the IAQ Certification Scheme and obtained a "Good/Excellet" class of indoor air quality:

1. North District Government Offices, 3 Pik Fung Road, Fanling, New Territories
2. Eastern Law Courts Building, 29 Tai On Street, Sai Wan Ho, Hong Kong
3. Harcourt House, 39 Gloucester Road, Wan Chai, Hong Kong
4. Harbour Building, 38 Pier Road, Central, Hong Kong
5. Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong
6. Queensway Government Offices, 66 Queensway, Hong Kong
7. Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Cheung Sha Wan, Kowloon
8. China Resources Building, 26 Harbour Road, Wanchai, Hong Kong
9. Mong Kok Government Offices, Kowloon, 30 Luen Wan Street, Mong Kok, Kowloon

[2] Excluding electricity consumption in joint-user government buildings which are reported by the Government Property Agency

10. Sha Tin Government Offices, 1 Sheung Wo Che Road, Shatin, New Territories
11. Kowloon East Government Offices, 12 Lei Yue Mun Road, Kwun Tong, Kowloon
12. Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong
13. Rumsey Street Multi-Storey Car Park Building, 2 Rumsey Street, Sheung Wan, Hong Kong

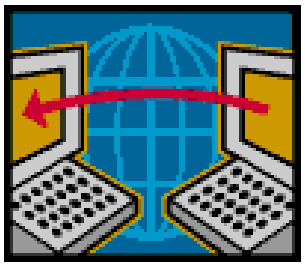
14. Kowloon Government Offices, 405 Nathan Road, Kowloon
15. Cross Harbour Tunnel Administration Building, Cross Harbour Tunnel, Hung Hom, Kowloon
16. Tate's Cairn Tunnel Administration Building, Siu Lek Yuen Road, Shatin, New Territories17. West Kowloon Government Offices South Tower, 11 Hoi Ting Road, Yau Ma Tei, Kowloon
18. Tower II of Grand Central Plaza, 138 Shatin Rural Committee Road, Sha Tin, New Territories


Indoor Air Quality Certificate
(Good Class)
室內空氣質素檢定證書（良好級）

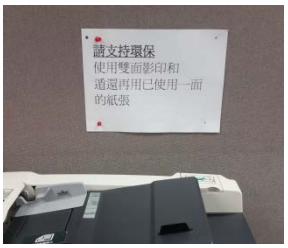
Environmental Objective No. 8 - Green Office Management

We always keep abreast of the green practices recommended by the Environmental Protection Department and Electrical & Mechanical Services Department and introduce them to our offices whenever appropriate. Our aim is to reduce paper and electricity consumption as far as possible and to use recycled materials as much as possible. The latest green office practices adopted by us are summarized below.

Paper-reduction Measures



- Sharing documents via the Local Area Network and the Internet by uploading reports, circulars and other documents on the Transport Department Intranet and Internet website
- Using e-mails and e-memos within the department and, as far as practicable, when communicating with other departments and the public
- Reducing the font size of the letters and characters, and the line spacing for drafting, and preview of documents before final print
- Issuing tender documents in electronic format
- Printing and photocopying on both sides of paper and on used paper
- Re-using envelopes and loose-minute jackets
- Sending unclassified documents without using envelopes
- Sending electronic seasonal greeting cards
- Sending no originals when these are sent by fax
- Using no covering sheets when documents are faxed
- Using CD-ROM to carry departmental publications and consultancy study reports instead of hard copies
- Monitoring the quantity of paper consumed quarterly
- Adopting e-Filing system where appropriate



The situation of paper consumption since 2008 is shown in the following table:

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
A4 Paper equivalent (reams)	25,573	26,682	27,477	29,464	28,426	28,732	28,804	32,615	28,731	30,982	34,076	**30.910**

Energy-saving Measures

- Monitoring and promoting energy-saving measures (e.g. switching off air-conditioning units, computers, etc.) by designated staff
- Setting the air conditioning temperature to 25.5℃ in the summer months
- Reminding all staff to switch off lights when not in office
- Turning off unnecessary lighting when the area is not in use and affixing “Save Energy” stickers near switches to remind staff to save energy
- Turning off some air-conditioning units when the occupancy is low (e.g. after

normal office-hours)

- Reminding all staff to set all computers and office equipment to energy-saving mode during office hours and to turn them off after use
- Adopting an open plan office concept through the use of half-glass walls to allow light to pass through when designing the layout of a new office
- Using T8 fluorescent lamps to replace T10 fluorescent lamps for energy saving
- Promoting walking up and down the floors instead of using lifts

Recycling Measures

- Providing green boxes for the collection of waste paper and arranging with recyclers to collect waste paper for recycling
- Collecting used printer toner cartridges for recycling
- Promoting the use of recycled paper
- Collecting used CD-ROM discs for recycling

Other Measures

- Practising no-smoking policy within all our offices

Environmental Objective No. 9 - Staff Awareness

We strive to develop a green culture within the Department and make all staff environmentally conscious. To this end we arranged colleagues to attend relevant seminars and programmes on environmental protection, and uploaded reports on overseas training or duty visit related to green transport and environmental sustainability to our intranet for colleagues' reference.

ENVIRONMENTAL ACHIEVEMENTS IN 2019

The progress/achievements versus the targets for 2019 are summarized in the following table.

Objectives	2019 Targets	Progress & Achievements
Reduction in Vehicular Traffic	(i) To continue the existing bus-rail interchange schemes (ii) To continue the existing GMB-rail interchange schemes (iii) To continue the existing taxi-rail interchange schemes at the Airport (iv) To rationalize more bus routes in busy area and on busy road	(i) Passengers travelling on MTR Tung Chung Line using adult Octopus were offered $1 fare discount for interchanging with New Lantau Bus (NLB) routes 37, 37H, 37P, 37M, 38, 38X, 39M, N37 and N38 at Tung Chung Station or vice versa. Passengers travelling on MTR Disneyland Resort Line or Tung Chung Line using adult Octopus were offered $1 fare discount for interchanging with CTB route B5 at Disneyland Resort or Sunny Bay Stations or vice versa. Besides, passengers could also enjoy free interchange on MTR feeder bus routes K12, K14, K17 and K18 which were operated by KMB at Tai Po Market Station or vice versa. (Remark: MTRCL offers free transfer on MTR bus routes for West Rail Line and Light Rail passengers in North-west Transit Service Area at the moment.) (ii) Passengers were offered $0.3 to $3.0 fare discount for interchanging between over 500 GMB routes and MTR. (iii) Taxi passengers enjoyed a 50 % fare discount by using an Octopus card on the Airport Express Line by

Objectives	2019 Targets	Progress & Achievements
		presenting a taxi receipt of amount not less than $40 on the same day at Kowloon or Tsing Yi Stations. (iv) Between 2010 and 2019, the cumulative reduction of the number of bus trips in the busy corridors in Central, Causeway Bay and Yau Tsim Mong was 5,752.
Tightening Vehicle Emission Control	(i) Implement Euro VI vehicle emission standards for first registered vehicles by phases according to vehicle class. (ii) Tighten the emission requirements of Franchised Bus Low Emission Zones (FBLEZs) to Euro V emission standards	(i) The emission standards for first registered vehicles (except for diesel private cars, buses with a design weight of not more than 9 tonnes, light buses with a design weight of more than 3.5 tonnes, motorcycles and tricycles) have been tightened to Euro VI by phases starting from 1 July 2017 and targeting to be completed in 2021. The emission standards for first registered diesel private cars were tightened to California LEV III on 1 October 2017. (ii) To further improve the roadside air quality, the Government tightened the emission requirements of FBLEZs to Euro V emission standards on 31 December 2019. Franchised bus companies were required to deploy low emission buses meeting Euro V or above emission standards to routes running through the FBLEZs.

Objectives	2019 Targets	Progress & Achievements
Use of Alternative Fuel Vehicles to Replace Old Diesel Vehicles	(i) To continue to encourage more owners to have their old diesel PLBs converted to LPG, Euro V or above or electric ones	(i) The administration launched an ex-gratia payment scheme in March 2014 for phasing out Pre Euro IV diesel commercial vehicles including PLBs till end of June 2020. After scrapping the vehicles, the owners can use the ex-gratia payment to buy new vehicles. The number of licensed LPG PLBs increased from 3,419 in 2018 to 3,530 in 2019. As at the end of 2019, there were 3,530 licensed LPG, 11 licensed Euro III, 173 licensed Euro IV and 586 licensed Euro V or above PLBs. (ii) The Administration limited the service life of diesel commercial vehicles newly registered on or after 1 February 2014 at 15 years.
Pedestrian Schemes	(i) To explore opportunities for the implementation of traffic calming schemes to meet public needs	(i) The works of the traffic calming scheme at Woosung Street was completed.
Enhancing Walkability	(i) To continue the study on “Enhancing walkability in Hong Kong”. (ii) To recommend conceptual pedestrian plans in the two Pilot Areas for an enhanced and comfortable walking environment	(i) Target achieved. (ii) Selected Sham Shui Po and Central as two Pilot Areas.

Objectives	2019 Targets	Progress & Achievements
Efficient Use of Road Space through Application of Advanced Technologies	(i) To continue the collection and dissemination of real-time traffic information to the public (ii) To continue the provision of Hong Kong eRouting and Hong Kong eTransport Services. (iii) To continue the dissemination of real-time traffic data for free download and value-added re-use by the public through DATA.GOV.HK (iv) To operate, maintain and enhance the Traffic and Incident Management System (v) To conduct survey to gauge the performance of Area Traffic Control Systems and identify improvements if appropriate (vi) To continue the installation of additional traffic detectors, Journey Time Indication Systems and Speed Map Panels	(i) Target achieved, real-time traffic information collection and dissemination to be continued in 2020. (ii) Target achieved. (iii) Target achieved, dissemination of real-time traffic data to be continued in 2020. (iv) Target achieved. (v) Car journey time surveys were conducted in the 4th quarter and local improvements had been carried out if necessary. (vi) The installation works of first phase traffic detectors commenced in 2018 while those of the second phase traffic detectors, additional Journey Time Indication Systems and Speed Map Panel commenced in June 2019.
Saving Electricity and Maintaining Good Indoor Air Quality at our facilities	(i) To contain the electricity consumption of our non-office facilities to the level of 2018 as far as possible. (ii) To contain the electricity consumption of our office facilities[3] to the level of 2013 as far as	(i) Target achieved, electricity consumption of our non-office facilities in 2019 was 1.23 million kWh, a decrease of 5% as compared with the consumption in 2018. (ii) Target achieved, electricity consumption of our office

[3] Excluding electricity consumption in joint-user government buildings which are reported by the Government Property Agency.

Objectives	2019 Targets	Progress & Achievements
	possible. (iii) To maintain a “Good/Excellent” class of indoor air quality at our premises eligible to join the IAQ Certification Scheme.	facilities in 2019 was 1.22 million kWh, a decrease of 5% as compared with the baseline level. (iii) Target achieved.
Green Office Management	(i) To continue with the green office management practices (ii) To contain the paper consumption to the level of 2018 (iii) To maintain the use of recycle paper to 30% or above of paper consumption	(i) Target achieved, green office management practices to be continued. (ii) Target achieved, paper consumption in 2019 has decreased by 9.3% as compared to the consumption in 2018. (iii) Target achieved, recycle paper contributes 72% of total paper consumption.
Staff Awareness	(i) To enhance staff awareness in related aspects through training and self-learning.	(i) Relevant seminars and programmes on environmental protection were arranged for colleagues. (ii) Overseas training / duty visit reports related to green transport and environmental sustainability were uploaded to intranet for colleagues’ reference.

OUR 2020 OBJECTIVES & TARGETS

Objectives	Targets
Reduction in Vehicular Traffic	(i) To continue the existing bus-rail interchange schemes (ii) To continue the existing GMB-rail interchange schemes (iii) To continue the existing taxi-rail interchange schemes at the Airport (iv) To rationalize more bus routes in busy area and on busy road
Tightening Vehicle Emission Control	(i) To implement Euro IV emission standards for first registered motorcycles from 1 October 2020 and Euro VI emission standards for first registered light buses with a design weight of more than 3.5 tonnes and buses with a design weight of not more than 9 tonnes from 1 March 2021 (ii) To implement an incentive-cum-regulatory programme to phase out about 40,000 Euro IV diesel commercial vehicles by phases by end 2027
Use of Alternative Fuel Vehicles to Replace Old Diesel Vehicles	(i) To continue to encourage more owners to have their diesel Public Light Buses converted to LPG, Euro V or above, or electric ones
Pedestrian Schemes	(i) To explore opportunities for the implementation of traffic calming schemes to meet public needs
Enhancing Walkability	(i) To continue the study on “Enhancing walkability in Hong Kong”. (ii) To recommend conceptual pedestrian plans in the two Pilot Areas for an enhanced and comfortable walking environment

Objectives	Targets
Efficient Use of Road Space through Application of Advanced Technologies	(i) To continue the collection and dissemination of real-time traffic information to the public (ii) To launche an integrated website "HKeMobility" to replace TD's 2 previous websites, viz. "Hong Kong eTransport" and "Hong Kong eRouting" (iii) To continue the dissemination of real-time traffic data through DATA.GOV.HK for free download and value-added re-use by the public (iv) To operate, maintain and enhance the Traffic and Incident Management System (v) To conduct survey to gauge the performance of Area Traffic Control Systems and identify improvements if appropriate (vi) To continue the installation of additional traffic detectors, Journey Time Indication Systems and Speed Map Panel
Saving Electricity and Maintaining Good Indoor Air Quality at our Facilities	(i) To contain the electricity consumption of our non-office facilities to the level of 2019 as far as possible (ii) To contain the electricity consumption of our office facilities to the level of 2013 as far as possible (iii) To maintain a "Good/Excellent" class of indoor air quality at our premises eligible to join the IAQ Certification Scheme.
Green Office Management	(i) To continue with the green office management practices (ii) To contain the paper consumption to

Objectives	Targets
	the level of 2019 (iii) To maintain the use of recycle paper to 60% or above of paper consumption
Staff Awareness	(i) To enhance staff awareness in related aspects through training and self-learning.