

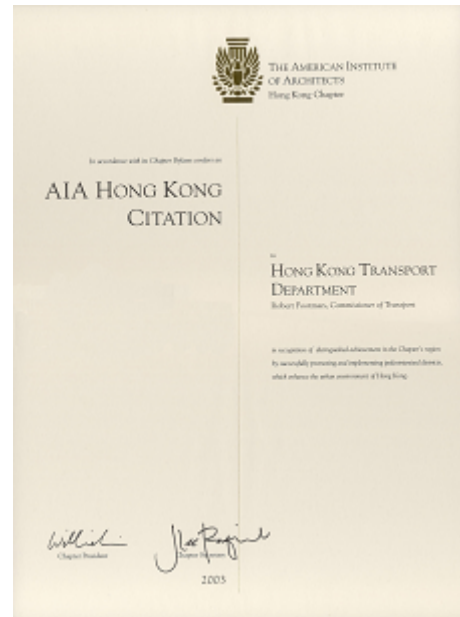
# 二零零三年度運輸署環保報告

## Environmental Report of Transport Department 2003



## **Foreword**

In 2003, we continued to provide Hong Kong citizens with an efficient and environmentally friendly transport system through more efficient use of road spaces, reducing vehicular emissions, implementation of pedestrian schemes, and application of IT to transport system. We have achieved satisfactory progress in most of these areas and our efforts, especially in pedestrian schemes, are receiving recognition from various sectors of the society. We are honoured with the award of an American Institute of Architects Hong Kong Citation in recognition of our “distinguished achievement in successfully promoting and implementing pedestrianised districts which enhance the urban environment of Hong Kong”. Nineteen pedestrian streets have been introduced or completed in 2003 and well received by the local shop operators and the general public. These pedestrian schemes have significantly reduced vehicle/pedestrian conflicts, diverted non-essential traffic, enhanced streetscape and improved the local air quality.



In the past few years, much effort has been spent to reduce motor vehicle emissions so as to keep our environment clean. For example, over 99% of our taxis are operated on liquefied petroleum gas, all franchised buses have been switched to use ultra low sulphur diesel, etc. All these efforts have contributed to the reduction of air pollution and we are happy to note that the concentration of particulates and nitrogen oxides at the roadside in 2003 are reduced by 13% and 23% respectively, as compared with 1999.

Our effort is beginning to bear fruit but there is no room for complacency. We would continue with our effort to provide an efficient and environmentally friendly transport system to meet the needs of our society.

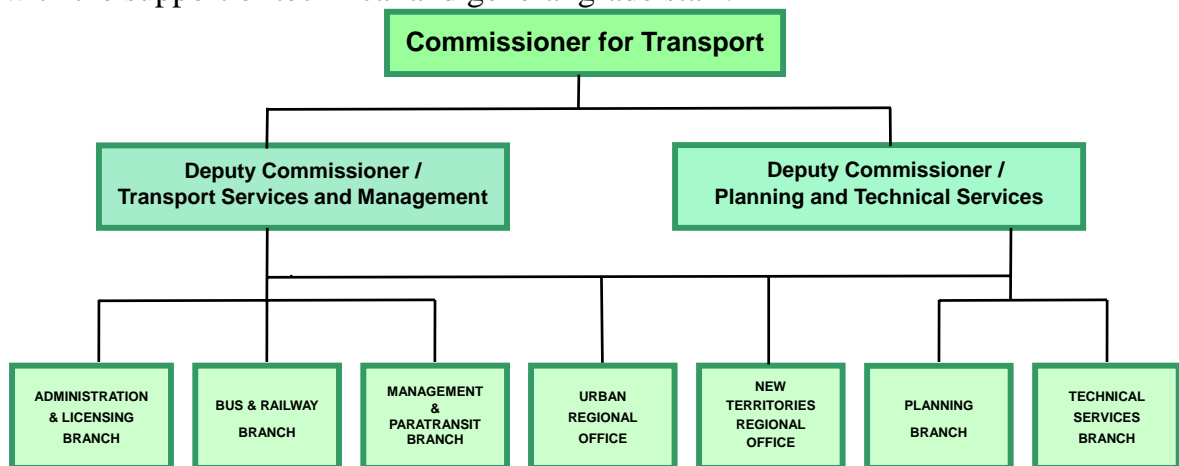
## **Chapter 1 – Introduction**

### **Environmental Policy**

We are committed to providing transport systems and services in an environmentally acceptable manner to ensure the sustainable development of Hong Kong.

### **Organisation and Responsibilities**

2. In pursuing the above environmental policy, we have about 1,390 staff working closely together under seven branches. They are mainly comprised of engineers of different disciplines who look after the engineering and technology side and transport officers who look after the transport operation and management side, with the support of technical and general grade staff.



**Organisational Structure of Transport Department**

3. Our departmental objective is to provide the world's best transport system which is safe, reliable, efficient, environmentally friendly and satisfying to both users and operators. We will:

- manage road use, reduce congestion and promote safety
- expand and improve our transport infrastructure network
- seek and support environmental improvement measures in transport-related areas
- improve the quality and co-ordination of public transport services

4. In providing a transport system which meets the economic, social, recreational and environmental needs of the community, and is capable of supporting sustainability and the future development of Hong Kong, we will:

- implement policies on public transport development, franchising and regulation, and assist in the formulation of infrastructure development programmes
- regulate vehicles and drivers
- plan and implement traffic management, road improvement and pedestrian schemes; monitor and regulate public transport services; formulate and implement road safety strategies and measures
- ensure the efficient management of tunnels, bridges, parking meters and Government multi-storey car parks
- ensure safe, efficient and environmentally friendly road usage with the assistance of IT
- ensure the efficient management and operation of rebus services and improve access to public transport for people with disabilities

#### **Our Contribution to a Better Environment**

5. Air pollution, a better pedestrian environment and green office management are our major concerns. To protect and enhance the environment, we are taking the following measures:

- giving priority to efficient, environmentally friendly transport modes such as railways
- reduction of traffic and greater emphasis on pedestrian facilities
- further tightening of vehicle emission controls
- exploring the use of alternative fuel vehicles to replace diesel vehicles
- application of advanced technologies to enhance road efficiency
- green office management

## **Chapter 2 – Performance in 2003**

### **Reduction in Traffic**

6. Railways are the most environmentally friendly and efficient mass carriers in Hong Kong, carrying over 30% of our public transport passengers. With railway as the backbone of Hong Kong's public transport system, efforts have been devoted to enhancing the co-ordination between railway and other public transport modes. This avoids wasteful duplication of public transport resources. Examples are the reorganisation of public transport with the opening of the Kowloon Canton Railway (KCR) West Rail in December 2003 and more interchange schemes between railway and the other modes of transport. Together with the implementation of more bus-bus interchange schemes, rationalisation of bus routes and stops, and park-and-ride schemes, traffic in busy areas and hence the impact on the environment is reduced.

#### *Bus-rail Interchange Schemes*

7. In view of the positive response, the Mass Transit Railway (MTR) Corporation Limited and the New Lantao Bus Co. (1973) Ltd. (NLB) continued the bus-rail interchange scheme between the Tung Chung MTR Line and NLB's services in 2003. Passengers are offered \$1 fare discount for interchanging between MTR and NLB's routes 37, 38 and N38.

8. Trial bus-rail interchange schemes have been implemented starting from 20 December 2003 for KCR West Rail passengers interchanging with KMB route 54 at Kam Sheung Road Station; with KMB routes 31, 32B, 34, 36, 39A, 234A, 234B, 43, 43B, 43X at Tsuen Wan West Station; and with KMB routes 12, 12A, 18, 36A, 212, 296C, NWFB routes 701, 702, XH routes 914, 914P and 971 at Nam Cheong Station. Interchanging passengers are offered \$1 to \$1.5 fare discount. The trial schemes would last for a year.

#### *Green Minibus-rail Interchange Schemes*

9. In 2003, there are altogether 9 green minibuses (GMB) routes that offered discount for interchanging with the MTR. These GMB routes are operated in Tseung Kwan O, Kwun Tong, Wong Tai Sin and Causeway Bay areas. Passengers are offered \$0.3 to \$1 fare discount for interchange between MTR and the GMB routes.

10. Starting from 20 December 2003, five trial green minibus-rail interchange schemes have been implemented for passengers from KCR West Rail interchanging with GMB NT route 77 at Yuen Long Station; with GMB NT routes 33, 34 and 35 at Tin Shui Wai Station; with GMB NT route 46 at Siu Hong Station; with GMB NT route 45 at Tuen Mun Station; and with GMB NT routes 99 and 301M at Tsuen Wan West Station. The trial schemes would last for a year.

*Taxi-rail Interchange Scheme*

11. To encourage passengers to use taxi as feeder to taking the Airport Express to the Airport, a trial taxi-rail scheme has been implemented since 1 October 2003. Taxi passengers can enjoy a 50% discount on the Airport Express Line by presenting a taxi receipt of an amount not less than \$70 on the same day together with an Octopus card at the Customer Service Centres at Kowloon and Tsing Yi Stations.

*Bus-bus Interchange Schemes*

12. Bus-bus interchange schemes are pursued as one of the measures to:

- achieve more efficient use of bus resources
- relieve congestion and minimise environmental impact on busy corridors
- reduce the need for long-haul point-to-point bus routes

13. As at end 2003, a total of 120 (compared with 96 up to end 2002) bus-bus interchange schemes have been implemented and some 110,000 (compared with 103,000 last year) passengers are using these interchanges every day. The schemes have facilitated and enhanced inter-district travel without the need of introducing additional bus routes. Through the provision of fare discount incentives and selection of convenient interchanging locations, passengers generally welcome the implementation of these schemes.



Bus-bus Interchange  
Bus-stop in Wan Chai

### *Rationalisation of Bus Routes and Stops*

14. Bus activities and buses weaving into/out of bus stops are some of the causes of road congestion, in particular on the major corridors which are overloaded. Road congestion results in more vehicle emissions. To improve the efficiency of bus operation and to alleviate the traffic and environmental impact, we have been working together with the franchised bus companies to rationalise bus services.

15. Through route amalgamation, route truncation and frequency adjustment, about 260 bus trips passing through Central and 440 bus trips passing through Yee Wo Street per day were removed in 2003. On the Kowloon side, about 140 bus trips per day were removed from Nathan Road.

16. Moreover, bus stop rationalisation schemes were implemented to reduce about 210 bus stoppings per peak hour between Central and Causeway Bay on Hong Kong Island.

### *Park-and-ride Facilities*

17. Park-and-ride (PnR) facilities are designed to encourage existing commuters who normally use their private cars to travel to busy urban areas to switch to public transport. 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 are now operating at Choi Yuen Road near the Sheung Shui KCR Station (200 parking spaces), and Kam Sheung Road KCR Station (560 parking spaces) of the West Rail as well as Hong Kong Station (150 parking spaces), Kowloon Station (220 parking spaces) and Tsing Yi Station (400 parking spaces) of the Airport Express Line.

### *Cycle Parks at Railway Stations*

18. With residential developments generally more scattered and further away from railway stations, riding bicycles is a popular and environmental- friendly means of accessing railway stations in the New Territories. To meet such demands, bicycle parking facilities are provided in the vicinity of the East Rail and West Rail stations in the New Territories, and cycle parks have been planned at the future stations of Ma On Shan Rail. Provision of these facilities would also help reduce the demand for vehicular short trips and shuttle services to and from the stations.

## **Tightening of Emissions Control**

### *Retrofitting of Diesel Catalysts by Franchised Bus Companies*

19. As at end 2003, there were some 6,200 franchised buses operating in Hong Kong. Among them, about 79% were running with engines that were in compliance with Euro emission standards. All the remaining pre-Euro buses and all Euro I buses have been retrofitted with diesel catalysts or continuous regenerating traps by end 2002 and end 2003 respectively.



**Euro III Bus**

### *Deployment of Environmentally Friendly Buses in Busy Corridors*

20. The franchised bus companies have committed to fully deploy cleaner Euro II or above buses on Yee Wo Street since early 2002.

### *Tightened Emission Standards*

21. With effect from 1 October 2001, all new franchised buses and newly imported medium and heavy diesel vehicles over 3.5 tonnes are required to comply with the latest Euro emission standards when they are registered in Hong Kong.

### *Strengthened Smoke Tests*

22. We have progressively strengthened the smoke tests for diesel vehicles in their annual roadworthiness examination. Since early 2000, we have tightened the smoke test by checking the maximum engine speed to guard against any tampering with the engine setting to achieve better test results. In early 2001, a chassis dynamometer was installed at the Kowloon Bay Vehicle Examination Centre to test the smoke emission of diesel vehicle under simulated loading conditions. Starting from 1 July 2002,



**A Goods Vehicle Being Tested on a Dynamometer**



about 10% of the diesel vehicles presented for annual examination have been randomly selected to undergo the smoke test on the chassis dynamometer. Another dynamometer will be installed at the Kowloon Bay Vehicle Examination Centre in early 2005 to enhance the diesel vehicles smoke test.

23. Since November 2000, we have also started to conduct emission tests on petrol and liquefied petroleum gas (LPG) vehicles during the annual examination.

### **Using Alternative Fuelled Vehicles to Replace Diesel Vehicles**

#### *Conversion of LPG Taxis*

24. Following the successful completion of the trial of LPG taxis in late 1998, most taxi owners have replaced their diesel taxis with LPG ones. As at end 2003, about 18,112 taxis (over 99%) are operated on LPG.



LPG Taxi

#### *Incentive Scheme for LPG/Electric Public Light Buses*

25. After consultations with the Public Light Bus (PLB) trade, the incentive scheme for conversion of diesel PLBs to LPG and electric PLBs was launched on 27 August 2002. PLB owners who replace their diesel PLBs with LPG or electric ones can apply for a one-off grant of \$60,000 or \$80,000 respectively. The deadlines for applications are end of 2004 for diesel PLBs aged 10 or above and end of 2005 for diesel PLBs aged below 10 years at the time of de-registration. At year-end of 2003, 637 LPG PLBs and 164 Euro-III model PLBs were operating on the roads.



LPG Public Light Bus

### *LPG Refilling Stations*

26. As at end 2003, 46 LPG filling stations were operating in various locations of Hong Kong. These stations provide adequate refilling facilities for taxis and light buses.



LPG  
Refilling Station

### *Use of Ultra Low Sulphur Diesel by Franchised Bus Companies*

27. Since 1 February 2001, all franchised buses have switched to use ultra low sulphur diesel. This change in fuel has reduced particulate emissions of Euro buses by 5 to 10%.

## **A Better Pedestrian Environment**

### *Pedestrian Schemes*

28. Since March 2000, we have implemented 6 full-time pedestrian streets, 25 part-time pedestrian streets and 24 traffic calming streets in Causeway Bay, Central, Wan Chai, Tsim Sha Tsui, Jordan, Mong Kok, Sham Shui Po, Stanley and Sheung Shui. These pedestrian schemes have greatly improved the overall pedestrian environment through reduction of vehicle/pedestrian conflicts, discouraging access of non-essential traffic, enhancement of streetscape and improvement in local air quality. The schemes are very welcomed by the District Councils, shop operators and the general public. The pedestrian streets introduced or completed in 2003 are shown in Table 1:



Apliu Street (before landscape works)



Apliu Street (after landscape works)

Table 1 – Pedestrian Schemes Introduced or Completed in 2003

<b>District</b>	<b>Type</b>	<b>Location</b>
Causeway Bay	Traffic calming street	<input type="checkbox"/> Paterson Street (between Great George Street and Kingston Street)
	Landscape works	<input type="checkbox"/> Lee Garden Road (between Lan Fong Road and Hysan Avenue)
Central	Landscape works	<input type="checkbox"/> Chiu Lung Street <input type="checkbox"/> Lan Kwai Fong <input type="checkbox"/> D'Aguiar Street (south of Wellington Street)
Wan Chai	Traffic calming street	<input type="checkbox"/> Johnston Road (between Stone Nullah Street and Tai Wo Street)
Tsim Sha Tsui	Landscape works	<input type="checkbox"/> Peking Road <input type="checkbox"/> Canton Road
Jordan	Full-time pedestrianisation	<input type="checkbox"/> Nanking Street (between Parkes Street and Shanghai Street)
	Landscape works	<input type="checkbox"/> Temple Street (between Jordan Road and Nanking Street)
Mong Kok	Part-time pedestrianisation	<input type="checkbox"/> Nelson Street <input type="checkbox"/> Soy Street <input type="checkbox"/> Sai Yeung Choi Street South (between Argyle Street and Nelson Street, and between Soy Street and Dundas Street)
	Landscape works	<input type="checkbox"/> Shan Tung Street
Sham Shui Po	Landscape works	<input type="checkbox"/> Apliu Street (between Yen Chow Street and Kweilin Street)
Stanley	Landscape works	<input type="checkbox"/> Stanley Market Street <input type="checkbox"/> Stanley New Street
Sheung Shui	Landscape works	<input type="checkbox"/> San Hong Street <input type="checkbox"/> San Kung Street

### *Pedestrian Walkway Systems*

29. Pedestrian walkway can help minimise conflict between pedestrians and vehicles, reduce traffic congestion and provide a better walking environment for

pedestrians. Consultants were appointed in August 2003 to plan and design an elevated pedestrian walkway along Fleming Road to connect Johnston Road to Wan Chai North. The proposed walkway, apart from serving as a convenient north-south link, will help reduce the current congestion problem at the O'Brien Road footbridge which carries an hourly pedestrian flow of over 11,000 numbers during peak hours.



Photomontage of Proposed Elevated Walkway at Fleming Road

## **Application of IT to Transport System**

### *Intelligent Transport Systems Strategy*

30. We continued to promote the deployment of advanced information and telecommunication technologies to enhance the performance of the transportation system in Hong Kong. The two core projects are the Transport Information System and the Journey Time Indication System.

### *Transport Information System (TIS)*

31. The TIS is a centralised data warehouse of comprehensive transport information. It will provide two main services, namely, the Public Transport Information Service and the Intelligent Road Network.

32. The Public Transport Information Service aims to assist public transport passengers and motorists to make pre-trip planning by providing the public with various options of travelling on public transport modes and motorists with a searching function of alternative driving routes. The public may access the information via the Internet, mobile phones or other means via service providers.

33. The Intelligent Road Network will provide up-to-date information on traffic directions, turning movements at road junctions and stopping restrictions, etc. Service providers in the private sector can make use of the information to provide the public with value-added services such as car navigation, fleet management and personalised information provision.

34. The contract for the implementation of the TIS has commenced in mid 2003 and is now scheduled for completion in phases in 2005.

*Journey Time Indication System*

35. Journey time indicators have been installed at Gloucester Road near Revenue Tower, Canal Road Flyover near Aberdeen Tunnel and Island Eastern Corridor near City Garden in 2003. The estimated journey times on key routes from Hong Kong to Kowloon via the three cross-harbour tunnels are being provided. Motorists can now enjoy the benefit of being able to make choices on their driving routes based upon the information provided and thus saving their travelling time.



Journey Time Indicators on Canal Road Flyover

36. In addition, we have also expanded our road traffic information service on Transport Department's website in late 2003. The number of CCTV cameras has been increased from 43 to 117. The public can have free access to the service 24 hours a day throughout the year.

#### *Area Traffic Control (ATC) Systems*

37. To reduce journey time, number of stops by vehicles and vehicle emission, we operate sophisticated computerised ATC systems in the urban areas, Tsuen Wan, Kwai Tsing, Sha Tin and Ma On Shan. The ATC systems provide real time co-ordination and adjustment of traffic signals timing to optimise the utilisation of road capacity and minimise traffic delay and improve environment.



ATC Control Room

38. With more and more applications of advanced technologies to the dissemination of transport information and traffic control and management facilities, vehicle fuel consumption, emissions and travelling time will be further reduced.

#### *Parking Meter System*

39. The parking meters in Hong Kong use disposable e-Park cards for payment of parking fees. Each year, about 2.4 million cards were consumed. Since mid-2003, we have commenced replacement of the e-Park card operated parking meters with Octopus meters that accept reloadable Octopus cards. About 1,000 new Octopus operated parking meters were installed in 2003. The remaining metered parking spaces will gradually be installed with Octopus operated meters in 2004.

#### **Green Office Management**

40. Our Green Manager and Green Executives continued to work together to develop green office practices, drive the whole department to adopt the good practices and monitor the actual performance. In particular, we closely monitored the trend of paper and power consumption by keeping track of the quantities of paper and electricity consumed by the department every month, and would introduce appropriate measures for stopping the rising trend, if any.

41. The Department continued to employ the following office practices in the year 2003:

#### *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, to a certain extent, when communicating with other departments and the public
- 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 electronic seasonal greeting cards
- Sending no originals when these are sent by fax
- Using no covering sheets when documents are faxed
- Using recycled paper
- Using CD-ROM to carry departmental publications instead of hard copies

#### *Recycling Measures*

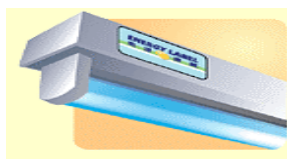
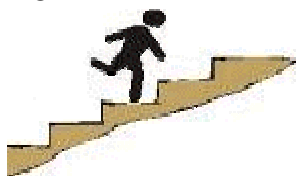
- Providing green boxes for the collection of waste paper and arranging with recyclers to collect waste paper periodically for recycling
- Collecting used printer toner cartridges for recycling
- Promoting the use of recycled paper

#### *Energy-saving Measures*

- Assigning dedicated staff to promote / monitor energy-saving measures (e.g. switching off air-conditioning units, computers, etc.)
- Reminding all staff to switch off lights and computers 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. on Saturdays or 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
- Replacing CRT monitors with more energy-efficient LCD monitors whenever a replacement is necessary
- 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

#### *Other Measures*

- Introducing no-smoking policy within the offices of the Transport Department
- Inviting the Environmental Protection Department to give talks on green measures and attending energy-saving workshops organised by EMSD, including
  1. Environmental Awareness Workshop on 28 January 2003
  2. Environmental Awareness Workshop on Green Office and Waste Reduction on 12 May 2003, 29 May 2003 and 9 June 2003
  3. Briefing Session on Energy Saving Tips on 5 June 2003

#### **Staff Awareness and Training**

42. We kept all staff aware of the department's dedication to environmental protection by constantly and regularly issuing green messages to everybody, displaying posters on notice boards, visiting the various work places to discuss green office practices and arranging training programmes and briefings. Our Green Manager and Green Executives met regularly to discuss new green initiatives and arranged to introduce them within the department. We also continued with our efforts in adopting an open plan office accommodation concept and in designating all our offices as no-smoking work places.



43. We participated in a competition entitled “Energy Efficiency and Conservation Best Practice Awards” organised by EMSD. The participation enabled the staff to gain experience and acquire knowledge in the process of launching a campaign within the department to save energy.



Open Plan Office



Open Plan Corridor



No Smoking Office

## **Chapter 3 – Targets for 2004**

### **Reduction in Traffic**

#### *Better Co-ordination of Public Transport Modes*

44. With the objective of making railway the backbone of the public transport system, efforts have been devoted to enhancing the co-ordination between railway and other public transport modes. To ensure provision of the appropriate level of public transport services to meet demand and to optimise the use of resources, studies on co-ordination of other public transport services with new railways which would become operational between 2002 and 2005 have been completed in 2001. Findings from the studies will form the basis for the planning and implementation of a co-ordinated public transport network along the new railway corridors.

45. To tie in with the opening of the KCRC Tsim Sha Tsui Extension and Ma On Shan Rail in late 2004, a number of rationalisation measures on bus and green minibus will be implemented to match the changing demand and maintain a balanced and co-ordinated public transport system while providing passengers with reasonable choices of transport. We will adopt a similar approach upon commencement of new railways in the coming years.

#### *More Bus-bus, Bus-rail and Green Minibus-rail Interchange Schemes*

46. To reduce the number of bus trips and the demand for more direct bus services, particularly those into the Central Business District, we will continue to promote bus-bus interchange schemes. About 43 new bus-bus interchange schemes will be implemented in various districts in 2004.

47. We will continue to encourage the bus and green minibus operators and railway corporations to provide interchange schemes. Schemes being actively pursued include those for the Ma On Shan Rail. In addition, the taxi-rail scheme for the Airport Express Line will be continued in 2004.

#### *More Bus Services Rationalisation*

48. We plan to further rationalise the bus services, in particular those in Causeway Bay and Nathan Road through route diversion to less congested roads, merging of bus routes and adjusting the bus service level to match passenger

demands. We will also explore the feasibility to truncate bus routes of low occupancy rates at the periphery of congested areas. In addition, there are plans to rationalise the bus stops in busy corridors to make more efficient use of road space.

#### *More Park-and-ride (PnR)*

49. PnR facilities have been planned at the existing Choi Hung MTR Station and future property developments in the vicinity of KCR stations at Tsuen Wan West, Kam Sheung Road, Tin Shui Wai, Tuen Mun Centre and Wu Kai Sha. Construction of the Choi Hung PnR scheme which will provide 450 parking spaces commenced in 2001 with target completion in 2006. In planning future rail stations and major transport interchanges, especially those on the fringe of the urban area, we will provide PnR facilities wherever practicable.

#### *More Cycle Parks at Railway Stations*

50. With the commissioning of Ma On Shan Rail in late 2004, the new cycle parks at Che Kung Miu Station, Sha Tin Wai Station, City One Station, Shek Mun Station, Tai Shui Hang Station, Heng On Station and Wu Kai Sha Station will be opened to the public.

### **Tightening of Emissions Control**

#### *Retrofitting of Continuous Regenerating Traps on Euro II and III buses*

51. To further upgrade the performance of their bus fleets in terms of protecting the environment, the franchised bus companies will continue with the trials of installing continuous regenerating traps on Euro II and III buses.

#### *Deployment of Environmentally Friendly Buses in Busy Corridors*

52. To further improve the air quality of Hong Kong, we will continue to pursue vigorously with franchised bus companies on deployment of more Euro II and III buses on other busy corridors, namely, Hennessy Road, Queensway, Des Voeux Road Central and Nathan Road.

## Using Alternative Fuelled Vehicles to Replace Diesel Vehicles

### *Incentive Scheme for LPG/Electric Public Light Buses*

53. Referring to Figure 1, the number of licensed LPG PLBs has increased constantly in year 2003. In 2004, we will continue to encourage PLB owners to participate in the incentive scheme to replace their diesel vehicles with those running on LPG or electricity. It is predicted that the number of licensed LPG PLBs will reach 1,100 at the end of 2004.

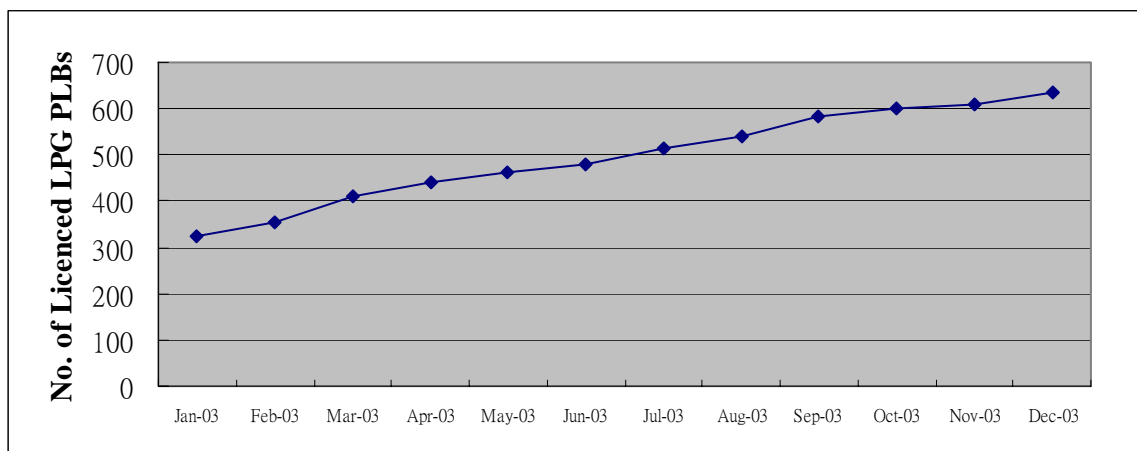


Figure 1 – Number of Licenced LPG Public Light Bus

54. Referring to Figure 2, the number of licensed Euro-III model PLBs has increased constantly in year 2003. The number of licensed Euro-III model PLBs is expected to reach 400 at the end of 2004.

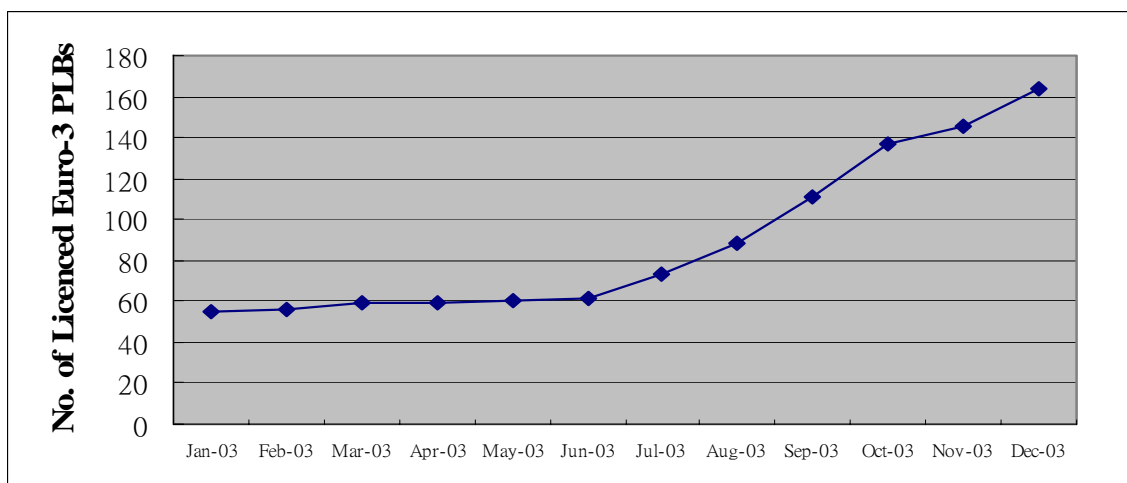


Figure 2 – Number of Licenced Euro-III Model Public Light Bus

### *Environmentally Friendly Transport Modes*

55. We completed a study to examine the feasibility of introducing trolley bus operation in Hong Kong in June 2001. The study concluded that the introduction of trolley buses was not recommended for existing built-up areas, whilst the possibility of trolley bus operation in new development areas could be further explored. In this connection, the merits of introducing trolley buses as against other environmentally friendly transport modes in the South East Kowloon Development will be examined to determine the best transport mode for this new development area.

### **A Better Pedestrian Environment**

56. Promoting better pedestrian environment is one of the means to enhance the quality of life. Feedbacks from the public on completed pedestrian schemes are encouraging. We are continuing our efforts to implement further pedestrian schemes in 2004. In Causeway Bay, a part-time pedestrian scheme will be launched on a trial basis at Pak Sha Road and a section of Lee Garden Road. In Mong Kok, the current part-time pedestrian scheme at Sai Yeung Choi Street South will be extended to cover Tung Choi Street. In Sham Shui Po, sections of Fuk Wa Street and Kweilin Street will be turned into traffic-calming streets for pedestrian safety and comfort.

57. Footpath widening is an effective means to improving pedestrian environment. We will continue to carry out footpath widening works in various districts, including Staunton Street, Elgin Street and Peel Street in Central; Johnston Road in Wan Chai; Soy Street in Mong Kok; Temple Street, Nanking Street and Pilkem Street in Jordan, and Apliu Street in Sham Shui Po. Landscape works would also be carried out where circumstances permit.

58. We have worked out together with the Planning Department a comprehensive pedestrian plan for the core area of Causeway Bay, bounded by Gloucester Road, Leighton Road and Canal Road East. Within the core area, the priority of the use of road space is to be given to pedestrians. Key proposals of the pedestrian plan include full-time pedestrianisation of Kai Chiu Road and an underground pedestrian-cum-retail link across Hennessy Road connecting Sogo and Hennessy Centre. The public will be consulted on the proposals in 2004.

59. We have also commissioned in conjunction with the Planning Department an area improvement study for Tsim Sha Tsui. The study which commenced in January 2004 aims to formulate proposals to bring about significant improvement to the urban and pedestrian environment in the district. Preliminary proposals on pedestrian schemes will be drawn up before end 2004.

60. We are planning to pedestrianise a section of Johnston Road and to provide an elevated walkway along Fleming Road to connect Johnston Road to Wan Chai North. We will consult the public on these proposals and the associated traffic re-routing arrangement.

### Application of IT to Transport System

61. We shall continue to implement the Transport Information System and seek opportunities for public-private collaboration to develop and provide value-added services to the general public. Potential applications include car navigation and fleet management which will reduce vehicle trips. Another initiative is to disseminate the CCTV images now available on the Internet to mobile phone users so that motorists or passengers will be able to know about the traffic conditions at strategic locations, whenever and wherever they need them.



Traffic Conditions at Kowloon Entrance of Cross Harbour Tunnel via Internet

62. In view of the significant benefits of the Area Traffic Control (ATC) System to optimise the utilisation of road capacity, minimise traffic delay and reduce vehicle emission, a new ATC system is currently being tested and commissioned by early 2005 to control traffic signals in the Tai Po and North Districts. Works have also been put in progress to replace the existing obsolete ATC system on the Hong Kong Island by a new state-of-art one to continue pursuing our traffic control and environmental objectives.

### **Green Office Management**

63. We will seek continuous improvement in the efficient use of resources and energy. We will also review the green office practices adopted in 2003 and explore the possibilities of further improvement. We aim to cut down paper and energy consumption by 2.5% and 1.5% respectively in 2004, through the following green initiatives:-

#### *Paper*

- To use e-mails and e-memos within the department, and extending the use to outside the department
- To keep departmental publications by CD-ROM
- To issue tender documents in electronic format or using CD-ROM
- To print and photocopying on both sides of paper and on used paper
- To set fax machines to block junk fax
- To send no originals when these are sent by fax and use no covering sheets
- To print 2 pages of documents on 1 single page for drafting purposes
- To set the font size of the letters and characters of Word documents to smaller format for drafting purposes, to set the line spacing from Chinese style to English style for reducing the length of Word documents and preview the documents before printing



#### *Energy Saving*

- To remind all staff to switch off the lights and computers when not in office
- To replace T10 or T12 fluorescent lamps (fat tubes) with T8 fluorescent lamps (thin tubes) as a short-term measure
- To replace T8 fluorescent lamps with T5 fluorescent lamps in the long term
- To increase the use of energy efficient fluorescent tubes for lighting

- To reduce power consumption at Public Transport Interchanges
- To unplug electrical appliances if they are not frequently used in office
- To keep track of the power consumption records and take measures to stop any trend of increase in power consumption

#### *Green Procurement*

- To procure more environmentally friendly products such as recycled paper, refillable ball pens, pencils and environmental thinner
- To replace, where appropriate, CRT monitors with more energy-efficient LCD monitors for all staff who still have not been provided with LCD monitors



- To procure energy-saving photocopiers and plain paper fax machines which are issued with energy labels by EMSD



#### *Green Activities*

- Transport Department has participated in the “Energy Efficiency and Conservation Best Practice Awards” Competition organised by EMSD and the result will be announced in December 2004.
- To attend seminars and workshops on green measures

#### **Staff Awareness and Training**

64. We will seek continuous improvement in the efficient use of resources and energy. We will continue to keep all staff aware of the department’s dedication to environmental protection and support green events organised by other departments or organisations and encourage our staff to attend training sessions and green activities.

#### **Feedback**

65. If you have any comments or suggestions on this Environmental Report, please send them to us at: [tdenq@td.gov.hk](mailto:tdenq@td.gov.hk)