

MESSAGE

Three months ago, a major analysis of public opinion in Hong Kong reported that “pollution as a top public priority has arrived in Hong Kong”. That is welcome news to all who have been working hard to alert the community to the damage that neglect of the environment can do to personal health and to the quality of our lives.

There is little doubt that declining air quality has had a powerful effect on public perception, but the hard work of environmental campaigners in academia, non-governmental organisations, business, the media and in Government has had effect as well. Strengthening that coalition of people with understanding, vision and influence to lead Hong Kong to a better quality of living environment is a crucial task for the year ahead.

Working together on a practical task is the best way to build teamwork, and there is no more pressing task than cleaning up our air. On World Environment Day, I presented a range of issues that affect our air quality and launched a programme to strengthen our campaign against air pollution. I have been very encouraged by the response from transport operators, businesses and community groups in working with Government to tackle this problem.

The new programme to cut vehicle Respirable Suspended Particulates emissions by 80% by 2005, set out by the Chief Executive in his Policy Address, provides opportunity for many throughout the community to join in the work of making a better environment. So does the campaign to reduce waste and improve recycling and work to green our city and conserve our heritage and country parks.

Less visible, but of fundamental importance to the building of a sustainable city, is the development of environmental infrastructure such as the sewerage system, and the constant work of environmental impact assessment to reshape planning and development. Public education and involvement in that planning and assessment process has been strengthened during the year, and will be vital ingredients in the mechanisms that are to be introduced in the coming year to guide Hong Kong's future development into more sustainable paths.

Co-operation with our neighbours in Guangdong, in the region and around the world is of ever increasing importance for improving our own living environment. Strengthening those external partnerships is a major and continuing task, but there is no firmer basis for it than effective internal partnerships to clean up our own house and set a green example to the world.

A handwritten signature in black ink, reading "Gordon Siu". The signature is fluid and cursive, with the first letter of "G" being particularly large and stylized.

(Gordon K C Siu)
Secretary for Planning,
Environment and Lands

IMPROVE OUR URBAN, RURAL AND MARINE ENVIRONMENT

Our Policy Objective is to improve our urban, rural and marine environment, conserving our natural heritage, and optimising the use of resources and goods so as to reduce pollution and waste and promote health and the enjoyment of our living environment.

Our targets this year in pursuing this Policy Objective are -

- To reduce exceedances of air quality objectives
- To prepare a comprehensive conservation policy
- To prepare a strategy for increasing energy efficiency
- To ensure that the environment is given full value in the establishment of new institutions to promote sustainable development
- To reduce noise from construction and renovation works
- To commence the bulk waste reduction programme under the Waste Reduction Framework Plan
- To reduce exceedances of water quality objectives

Progress Made

While progress in specific areas can be recorded in later sections, summing up progress across the whole environmental field is more challenging. A reasonable general observation is that Hong Kong has been making good progress in developing mechanisms to prevent ecological damage and to mitigate other environmental impacts from development. Much is being done to green the city areas and improve management of country and marine resources. Environmental infrastructure is developing steadily. But against this progress is set the rapidly increasing pressure that the population is putting on the environment. This reduces the environmental gains that can be expected from new policies and programmes. The pressures are not simply a function of population growth, but reflect changing personal habits, expectations and investments. Breaking the link between Gross Domestic Product growth and environmental pressure will be crucial to Hong Kong's future sustainability. Substantial progress was made during the year in identifying the various links between economic and social activity and environmental pressures, so that future choices can be guided into more sustainable paths. Key documents published were the studies "Heading Towards Sustainability?" and "Hong Kong's Present Challenge : A Profile of the Environment in the 1990's", both supported by the Environment and Conservation Fund.

KEY RESULT AREAS (KRAs)

To ensure that this Policy Objective can be achieved, we must deliver results in a number of key areas, that is, we must –

1	Improve air quality	Page 3
2	Conserve natural heritage and resources	Page 12
3	Increase efficiency in energy use	Page 17
4	Plan for sustainability	Page 24
5	Reduce noise pollution	Page 31
6	Reduce waste	Page 34
7	Improve water quality	Page 41

1

Improve air quality

Hong Kong is confronted with two air pollution problems: an acute street level pollution problem mainly caused by the intensity of vehicle use in our dense urban environment; and a highly visible ambient air pollution problem which is largely caused by Hong Kong sources but is also affected by regional air quality problems. Clean air is needed to keep Hong Kong one of the world's great cities. Measures will be implemented to clean up our air. In parallel, the Administration will also work together with the relevant Guangdong authorities to control emissions and improve the regional air quality.

Progress Made

In the past 12 months, most attention has been given to the issue of air quality. The emission standards of new vehicles have been improved - all new diesel vehicles must now comply with the European Union (Phase II) standards and motorcycles have been brought within the ambit of emission controls - new equipment introduced and stepped up enforcement action taken by the Police, Customs and Excise Department and Environmental Protection Department against smoky vehicles and use of illegal, sub-standard fuels. A package of new management and mitigation measures to reduce diesel emissions in central urban areas was introduced in June 1999.

Intensive work was also carried out to prepare further measures to reduce vehicle emissions. Proposals for a scheme to improve indoor air quality were developed. New publications, notably that on Clean Air Policy, have also been issued in June 1999.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative *	Target #	Present Position +
To establish the sources, volume and trends of Hong Kong's greenhouse gas emissions <i>(Environmental Protection Department (EPD))</i>	To complete within 1999 a consultancy study to provide reliable data to develop policy options <i>(1998)</i>	The greenhouse gas emission inventory survey and projection modelling are making good progress. The study is expected to be completed on schedule. <i>(Action in Progress: On Schedule)</i>
To study the extent of cross-boundary air pollution in the Pearl River Delta Region <i>(EPD)</i>	To start a joint study with the Guangdong Authorities by April 1999 with the aim of developing improvement measures from 2000 onwards <i>(1998)</i>	The joint study with the Guangdong Authorities has started. Improvement measures will be developed for nitrogen dioxide, photochemical smog and particulates. <i>(Action in Progress: Behind Schedule)</i>
To study the feasibility of a clean alternative to diesel light buses <i>(EPD)</i>	To consult the affected trades on the details of the study in 1999 <i>(1998)</i>	Suitable liquefied petroleum gas light bus models have been identified. Consultation with the light bus operators on a trial proposal is on-going. <i>(Action in Progress: On Schedule)</i>
To study ways of strengthening inspection of petrol vehicle emissions <i>(EPD)</i>	To propose an exhaust emission inspection programme by December 1998 <i>(1998)</i>	A proposal to incorporate the emission test in the annual road worthiness inspection for petrol vehicles over six years has been put forward. <i>(Action Completed)</i>

* the bracketed information denotes the agency with lead responsibility for the initiative

the bracketed information denotes the year in which the target was set

+ the bracketed information denotes the status of the target

Initiative	Target	Present Position
<p>To develop ways to improve indoor air quality (EPD)</p>	<ul style="list-style-type: none"> ● To develop a programme for improving indoor air quality by end-1999 (1998) ● To put in place, by 2001, control programmes which will safeguard the health of more than 300 000 office workers and people in about 70 000 residential premises (1995) 	<ul style="list-style-type: none"> ● A proposed programme has been developed and consultation on it started in August 1999. (Action in Progress: On Schedule) ● An inter-departmental working group has developed a proposed management programme with a view to commencing the programme in 2000 after consultation. (Action in Progress: On Schedule)
<p>To study the use of chassis dynamometer tests of the smoke emissions of heavy duty vehicles (EPD)</p>	<p>To launch a pilot scheme by end-1998 (1998)</p>	<p>The pilot scheme was completed in March 1999. The next step is to consult the transport trade to introduce the advanced smoke test in 2000. (Action Completed)</p>
<p>To phase out diesel taxis and replace them with liquefied petroleum gas (LPG) taxis as soon as possible (Planning, Environment and Lands Bureau (PELB)/EPD)</p>	<ul style="list-style-type: none"> ● To enable all newly registered taxis to use LPG by end-2000 (1998) ● To reduce particulates emitted by the current diesel vehicle fleet by 30% (1998) 	<ul style="list-style-type: none"> ● Actions are being taken to facilitate the setting up of LPG filling stations and provision of other supporting facilities to support the large-scale introduction of LPG taxis. (Action in Progress: On Schedule) ● Higher targets for emission reduction are to be set. (Action in Progress: Under Review)
<p>To ban the sale of leaded petrol in Hong Kong in 1999 (EPD)</p>	<p>To introduce the necessary legislation by early 1999 (1998)</p>	<p>The legislation to ban the sale of leaded petrol was enacted by the Legislative Council and the ban commenced on 1 April 1999. (Action Completed)</p>

Initiative	Target	Present Position
<p>To step up enforcement action against smoky vehicles <i>(EPD/Hong Kong Police Force)</i></p>	<ul style="list-style-type: none"> ● To introduce the use of portable smoke testing equipment by police officers for enforcement against smoky vehicles in 1999 <i>(1998)</i> ● To introduce legislation to increase the fixed penalty fine for smoky vehicles in the 1999-2000 legislative session <i>(1998 and 1997)</i> ● To introduce more rigorous smoke emission tests by mid-1999 <i>(1996)</i> 	<ul style="list-style-type: none"> ● The legislation to enable the Police to use portable smokemeters for enforcement was approved by the Legislative Council in February 1999. Police started using the equipment for enforcement from March 1999. <i>(Action Completed)</i> ● We intend to introduce legislation into the Legislative Council within 1999-2000 as soon as we complete our on-going consultation exercise. <i>(Action in Progress: On Schedule)</i> ● The use of chassis dynamometer tests for smoky vehicle below 5.5 tonnes has been introduced. <i>(Action Completed)</i>
<p>To introduce emission standards for motorcycles <i>(EPD)</i></p>	<p>To implement new standards in 1999 <i>(1998)</i></p>	<p>The legislation was enacted by the Legislative Council in June 1999 and took effect from 1 October 1999. <i>(Action Completed)</i></p>
<p>To improve control of the disposal of ozone depleting substances <i>(EPD)</i></p>	<p>To implement by 1999 a programme to dispose of ozone depleting substances through the Chemical Waste Treatment Centre <i>(1998)</i></p>	<p>Disposal programme was launched at end-1998. <i>(Action Completed)</i></p>

Initiative	Target	Present Position
<p>To improve the assessment of the air quality of Hong Kong (EPD)</p>	<ul style="list-style-type: none"> ● To establish an additional air quality monitoring station in Tung Chung in 1999 (1998) ● To establish three additional air quality monitoring stations in Causeway Bay, Central and Eastern Districts by end-1998 (1996) 	<ul style="list-style-type: none"> ● The air quality monitoring station in Tung Chung was established in March 1999. (Action Completed) ● Three air quality monitoring stations in Causeway Bay, Central and Eastern Districts were completed in 1998. (Action Completed)
<p>To step up inspection and enforcement in workplaces with occupational safety and health risks from hazardous vapour (Labour Department)</p>	<p>To undertake at least 50 000 inspection visits to workplaces each year from 1999 (1998)</p>	<p>As at end-September 1999, over 37 000 inspection visits have been undertaken. (Action in Progress: On Schedule)</p>
<p>To assess the adequacy of existing air quality objectives (EPD)</p>	<ul style="list-style-type: none"> ● To complete a review of the air quality objectives by end-1998 (1998) ● To make appropriate recommendations in 1999 (1998) 	<ul style="list-style-type: none"> ● The report on the health effects of air pollution for the review of air quality objectives has been endorsed by the Working Group on the Health Effect of Air Pollution in August 1998. (Action Completed) ● Internal consultation is being carried out and appropriate recommendations will be made by end-1999. (Action in Progress: On Schedule)
<p>Once the technical issues have been settled, to implement a plan to replace diesel-powered vehicles with liquefied petroleum gas (LPG) or other cleaner technologies as soon as possible (PELB/EPD)</p>	<p>To replace all diesel taxis with LPG and to seek to introduce other cleaner technologies for other diesel-powered vehicles once they are practicable and available to Hong Kong (1997)</p>	<p>Plans to install the LPG refuelling capacity and maintenance support needed to enable all newly registered taxis to use LPG from end-2000 have been developed. A trial of LPG light buses is planned for 2000. (Action in Progress: On Schedule)</p>

Initiative	Target	Present Position
<p>To launch a trial of LPG-powered taxis to ascertain their reliability and gauge the necessary operating cost data for devising a viable motor fuel strategy to improve air quality <i>(PELB/EPD)</i></p>	<p>To launch the trial of LPG-powered taxis in late 1997 <i>(1997)</i></p>	<p>The LPG taxi trial was launched on schedule and completed in late 1998. As the trial confirmed that LPG taxis are suitable for use in Hong Kong, all newly registered taxis will be required to use LPG from the end of 2000. <i>(Action Completed)</i></p>
<p>To introduce the more stringent European Union (Phase II) emissions standards on light duty diesel vehicles in 1998 <i>(PELB/EPD)</i></p>	<p>To introduce the more stringent European Union (Phase II) emissions standards on light duty diesel vehicles in 1998 <i>(1997)</i></p>	<p>The more stringent standards were implemented on 1 October 1998 and 1 July 1999 respectively in two stages. <i>(Action Completed)</i></p>
<p>To introduce a control scheme to minimise perchloroethylene emissions, a toxic air pollutant, from dry cleaners <i>(PELB/EPD)</i></p>	<p>To introduce the empowering regulation within 1999 <i>(1997)</i></p>	<p>Drafting of regulation and consultation with the trade are in progress. We aim to introduce the regulation within the 1999-2000 legislative session. <i>(Action in Progress: Behind Schedule)</i></p>
<p>To introduce regulatory control to require petrol filling stations to implement vapour recovery systems to reduce benzene emissions <i>(PELB/EPD)</i></p>	<p>To introduce the legislation by end-1998 <i>(1997)</i></p>	<p>The regulation has been implemented since April 1999. <i>(Action Completed)</i></p>
<p>To examine proposals to extend the scope and frequency of regular emission inspections on commercial diesel vehicles <i>(EPD)</i></p>	<p>To establish a vehicle inspection and maintenance programme and to require all diesel vehicles to undergo an annual inspection from 1 May 1996 <i>(1996)</i></p>	<p>Action on this item has been completed. The more thorough emission check has been found to be effective and will be continued. <i>(Action Completed)</i></p>

Initiative	Target	Present Position
To find new ways to reduce harmful emission from motor vehicles on our roads (EPD)	To monitor technological development in controlling emissions from motor vehicles and to propose new initiatives whenever appropriate (1996)	Developments in vehicle technology are constantly reviewed and measures to encourage adoption of cleaner technologies are being considered. <i>(Action in Progress: On Schedule)</i>
To continue our efforts in controlling industrial emissions (EPD)	To cover all major industrial air pollution sources (about 200) by 2000 (1995)	Control of most major industrial air pollution sources is on schedule. <i>(Action in Progress: On Schedule)</i>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The extent to which the air quality objectives are being met	Less exceedances of air quality objectives than in 1998-1999.

We will undertake the following initiatives to deliver results in this area -

Initiative	1999 Target
To monitor trends and study the local effect of acid rain (EPD)	<ul style="list-style-type: none"> ● To commence within 2000 a study on the environmental and ecological effect of acid rain ● To step up frequency of monitoring and add another acid rain monitoring location within 2000

Initiative	1999 Target
<p>To phase out diesel taxis and replace them with liquefied petroleum gas (LPG) taxis as soon as possible (PELB/EPD)</p>	<ul style="list-style-type: none"> ● To provide grants to encourage the purchase of LPG taxis ● To de-register all diesel taxis over seven years old from 1 January 2004 and all remaining diesel taxis on 1 January 2006
<p>To phase out diesel light buses and replace them with LPG light buses or other clean alternatives (PELB/EPD)</p>	<p>Subject to operational trials, to provide grants to encourage the purchase of LPG light buses, and to establish a programme to phase out diesel light buses</p>
<p>To reduce emissions from in-use diesel vehicles (EPD)</p>	<ul style="list-style-type: none"> ● Subject to operational trials, to require all pre-Euro standard diesel vehicles to be fitted with suitable catalyts or particulate traps as appropriate and to provide incentives for owners of these vehicles to do so ● To encourage the supply of diesel fuel with ultra low sulphur content for bus companies and other vehicle fleet operators in Hong Kong
<p>To conduct a publicity and education programme on actions that different sectors of the community can take to reduce air pollution (EPD)</p>	<p>To launch the programme within 2000</p>
<p>To launch a targeted programme of education and seminars on proper maintenance of vehicles and eco-driving (EPD)</p>	<p>To conduct seminars/workshops for the vehicle maintenance trade and professional drivers in 2000</p>
<p>To conduct strengthened smoke tests as part of the annual inspection programme of all commercial vehicles (Transport Department (TD))</p>	<p>To extend strengthened smoke tests to the annual inspection of all commercial vehicles in 2000</p>

Initiative	1999 Target
To implement an indoor air quality management programme <i>(PELB)</i>	To commence the programme within 2000
To use chassis dynamometer for smoke emission testing of all heavy duty vehicles <i>(EPD)</i>	To introduce chassis dynamometer testing in 2000
To step up smoky vehicle spotters programme <i>(EPD)</i>	To train 300 additional spotters in 2000 and to provide refresher courses for serving spotters
To tighten the fuel standard of industrial diesel to the same level as that of motor diesel <i>(PELB)</i>	To make a legislative proposal in 2000
To further tighten the emission standards of diesel vehicles <i>(PELB)</i>	To implement European Union (Phase III) emission standards as soon as they are introduced in Europe in 2001
To tighten the fuel standard of motor diesel <i>(EPD)</i>	To reduce the sulphur content of motor diesel to not more than 0.035% in January 2001
To tighten the fuel standard of petrol <i>(EPD)</i>	To reduce the benzene in petrol to not more than 1% in 2000
To extend the emission check in roadworthiness inspection to all vehicles <i>(TD)</i>	To introduce an emission check in the roadworthiness inspection to petrol and liquefied petroleum gas vehicles in 2000
To introduce measures to reduce pedestrian exposure at suitable air pollution black spots in the urban area <i>(PELB/TD/EPD)</i>	To discuss with the relevant local district councils and the community in 2000 on practical schemes to be implemented at feasible locations

2

Conserve natural heritage and resources

Hong Kong has a rich and diverse sub-tropical ecology and a land and seascape of great variety and beauty. Protecting the diversity of natural life, and the quality of the landscape, is important for the quality of the city and the health of the natural environment.

Progress Made

The Lung Fu Shan Country Park was designated in December 1998 and the Ma Shi Chau Special Area in April 1999. These have added 108 hectares of managed landscape to the 41 555 hectares already under the protection of the Agriculture and Fisheries Department. Consultation on the extension of the artificial reef programme outside Marine Park areas commenced in August 1999. A comprehensive biodiversity survey was completed in July 1999 which will be an invaluable tool for identifying pressures on natural ecosystems and helping to develop more effective conservation strategies in future.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative	Target	Present Position
To establish data for considering a strategy for the conservation of the finless porpoise in Hong Kong <i>(Agriculture and Fisheries Department (A&FD))</i>	To complete a study on the biology of the finless porpoise in 2001 <i>(1998)</i>	The study was commissioned in July 1998 and is in progress. <i>(Action in Progress: On Schedule)</i>
To develop a strategy for wetland protection and compensation <i>(A&FD)</i>	<ul style="list-style-type: none"> To complete a study on the methodology for wetland compensation in early 2001 <i>(1998)</i> To recommend a strategy by 2001 <i>(1998)</i> 	<ul style="list-style-type: none"> A study has been commissioned for completion in mid-2001. <i>(Action in Progress: Behind Schedule)</i> Upon completion of the study, a strategy will be formulated. <i>(Action in Progress: On Schedule)</i>

Initiative	Target	Present Position
To develop programmes for the conservation of the Chinese white dolphin (A&FD)	To recommend a conservation programme by 2000 (1998)	A draft programme is being considered and will be available by 2000. <i>(Action in Progress: On Schedule)</i>
To launch a three-year "Green Country Parks in a New Century" publicity programme starting in October 1998 (A&FD)	<ul style="list-style-type: none"> ● To conduct 60 activities each year ● To involve 4 000 members of the public in these activities each year (1998)	<ul style="list-style-type: none"> ● In 1998-1999, 200 activities were organised. ● In 1998-1999, 18 000 members of the public were involved in these activities. <i>(Action in Progress: On Schedule)</i>
To organise more visitor liaison group meetings on the management of country and marine parks (A&FD)	To organise five visitor liaison group meetings in 1999 (1998)	Five visitor liaison group meetings have been held in 1999. <i>(Action Completed)</i>
To launch a public education programme on conservation of country and marine parks through publishing booklets, posters and guided tours (A&FD)	<ul style="list-style-type: none"> ● To distribute 250 000 booklets and 20 000 posters in 1999 ● To conduct 400 guided tours in 1999 (1998)	<ul style="list-style-type: none"> ● Up to end-September 1999, about 160 000 booklets and posters have been distributed. ● As at end-September 1999, 250 guided tours have been organised. <i>(Action in Progress: On Schedule)</i>
To provide professional and technical advice and support on follow-up action, monitoring and auditing programmes related to ecological aspects of Environmental Impact Assessments (A&FD)	To form a team in 1999-2000 to check the implementation of ecological mitigation measures and monitoring and auditing programmes (1998)	A team was formed in September 1999. <i>(Action Completed)</i>

Initiative	Target	Present Position
<p>To step up the afforestation programme in country parks (A&FD)</p>	<ul style="list-style-type: none"> ● To plant 500 000 trees in 1999 ● To organise 200 public tree planting activities in 1999 <p>(1998)</p>	<ul style="list-style-type: none"> ● This exercise has been completed. ● 253 public tree planting activities have been organised in 1999. <p>(Action Completed)</p>
<p>To enhance the protection and conservation of Mai Po and Inner Deep Bay Ramsar Site by adopting a conservation strategy and implementing a management plan for the site (A&FD)</p>	<p>To implement a management plan for the site in 1998-1999 (1997)</p>	<p>Management plan was implemented in mid-1998. Management is on-going. (Action Completed)</p>
<p>To work towards more efficient management of country parks by more contracting out of litter collection and grass cutting (A&FD)</p>	<p>To contract out litter collection and grass cutting in major recreation areas, and to reduce permanent staff in 1998-1999 (1997)</p>	<p>21 contracts were arranged in 1998-1999 and 50 posts were deleted in August 1998. (Action Completed)</p>
<p>To designate Lung Fu Shan as a country park under the Country Parks Ordinance in 1998-1999 (A&FD)</p>	<p>To complete the designation of Lung Fu Shan as a country park under the Country Parks Ordinance by end-1999 (1997)</p>	<p>The Lung Fu Shan Country Park was designated on 18 December 1998. (Action Completed)</p>
<p>To set up a reward scheme for collecting intelligence on illegal trade in endangered species (Economic Services Bureau (ESB)/A&FD)</p>	<p>To launch the reward scheme by 1999 (1997)</p>	<p>The award scheme was launched in July 1999. (Action Completed)</p>

Initiative	Target	Present Position
<p>To study in 1998-1999 more potential sites to assess their suitability for designation as marine parks or marine reserves (A&FD)</p>	<p>To complete the study in early 1999 (1997)</p>	<p>The study was completed in June 1999. (Action Completed)</p>
<p>To review the existing legislation and intelligence collection on illegal trade in endangered species of animals and plants in Hong Kong in 1998 with a view to strengthening our control over such trade (ESB/A&FD)</p>	<p>To complete the review by end-1998 (1997)</p>	<p>The review was completed in 1998. An Intelligence Unit was set up in August 1998. (Action Completed)</p>
<p>To strengthen the protection and management of country parks (A&FD)</p>	<p>To update the Country Parks Ordinance in 1997 (1996)</p>	<p>Drafting is at the final stage. We plan to introduce the Bill into the Legislative Council in 2000-2001. (Action in Progress: Behind Schedule)</p>
<p>To designate Ma Shi Chau as a special area under the Country Parks Ordinance (A&FD)</p>	<p>To complete the designation of Ma Shi Chau as a special area under the Country Parks Ordinance by 1997 (1996)</p>	<p>The Ma Shi Chau Special Area was designated on 9 April 1999. (Action Completed)</p>
<p>To continue to liaise with the Guangdong authorities through the Hong Kong Guangdong Environmental Protection Liaison Group on the conservation of Indo-Pacific humpbacked dolphins (also locally known as Chinese White Dolphins) (A&FD)</p>	<p>To maintain regular contacts with the Guangdong authorities to exchange information on protection of Chinese White Dolphins in the Pearl River Estuary (1996)</p>	<p>The last meeting was held in June 1999. Regular correspondence and exchange of information are maintained. (Action in Progress: On Schedule)</p>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The extent to which the natural environment is being conserved and ecological integrity is being safeguarded	To upkeep the areas managed under the country and marine parks system, and to continue to protect important species

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To educate traders to comply with the Animals and Plants (Protection of Endangered Species) Ordinance (Cap. 187) (A&FD)	To organise seminars and produce advisory leaflets for traders in 2000
To further protect and conserve our natural resources for the purposes of conservation, education and recreation (A&FD)	<ul style="list-style-type: none"> ● To extend country parks at North Lantau in 2001 ● To designate the fourth marine park in Hong Kong in 2001
To review Animals and Plants (Protection of Endangered Species) Ordinance (Cap. 187) to enhance effectiveness of control (A&FD)	To complete the review by mid-2000

3

Increase efficiency in energy use

The amount of energy used to support the business of the city and the life of its people, and the way in which that energy is generated, have a profound effect on the economy and the environment of the city. Reducing the amount of energy needed to produce each increase in economic activity and reducing the pollutants emitted in producing each unit of energy are fundamental to a more sustainable economy and environment.

Progress Made

The Energy Efficiency End Use Database was published in December 1998 to provide the basis for assessing the progress towards increasing energy efficiency. The Energy Efficient Building Registration Scheme was launched in October 1998. A study into Water-cooled Air Conditioning Systems was also completed in April 1999.

To achieve results in this area, various initiatives have been undertaken in the past years. Details are set out below –

Initiative	Target	Present Position
To explore the concept of introducing energy services companies (ESCOs) to enhance energy efficiency and conservation within the Administration <i>(Electrical and Mechanical Services Department (E&MSD))</i>	To conduct a preliminary feasibility assessment and recommend a way forward by March 2000 <i>(1998)</i>	A task force comprising professional institutes, prospective contractors and experienced organisations has been formed to recommend a way forward. <i>(Action in Progress: On Schedule)</i>

Initiative	Target	Present Position
<p>To assess the viability of wider adoption of Water-cooled Air Conditioning Systems in Hong Kong (E&MSD)</p>	<ul style="list-style-type: none"> ● To complete a preliminary feasibility study by April 1999 to identify the problems and constraints involved (1998 and 1997) ● To determine by April 1999 the scope of a further detailed study to examine how best to overcome the problems and constraints to allow adoption of Water-cooled Air Conditioning Systems at the Southeast Kowloon Development as well as two other selected districts or developments (1998) 	<ul style="list-style-type: none"> ● The study was completed in April 1999. ● The scope of the further detailed study was determined in April 1999. (Action Completed)
<p>To promote the implementation of energy audit surveys and energy management opportunities within both public and private sectors (E&MSD)</p>	<ul style="list-style-type: none"> ● To disseminate information in 1999 on the experience gained and opportunities identified during the Government's pilot Energy Management Opportunity programmes ● To prepare guidelines for retrofitting existing buildings with energy efficient equipment by mid-1999 (1998) 	<ul style="list-style-type: none"> ● Energy Management Opportunity reports were completed and were made available in E&MSD's homepage. ● Guidelines and pamphlets on using energy efficient equipment were published in July 1999. (Action Completed)

Initiative	Target	Present Position
<p>To provide more information from the Hong Kong Energy End-use Database (E&MSD)</p>	<p>To make available to the public basic historical energy end-use data on Hong Kong's energy use by 1999 (1998)</p>	<p>A set of basic historical energy end-use data (1984-1994) was made available in December 1998. Additional data for 1995 was made available in July 1999. (Action Completed)</p>
<p>To raise awareness of energy efficiency considerations in procuring office equipment (E&MSD)</p>	<p>To plan a new energy efficiency labelling scheme for office equipment and to provide a short-list of equipment for labelling by end-1999 (1998)</p>	<p>Literature research on the existing overseas standards for office equipment is being carried out. (Action in Progress: On Schedule)</p>
<p>To extend awareness of energy efficiency considerations in procuring household appliances (E&MSD)</p>	<ul style="list-style-type: none"> ● To introduce the voluntary energy efficiency labelling scheme for clothes dryers in 1999 (1998) ● To extend the voluntary energy efficiency labelling scheme to compact fluorescent lamps by 1998 (1996) 	<ul style="list-style-type: none"> ● Draft scheme document was issued to relevant parties for consultation in July 1999. (Action in Progress: On Schedule) ● The voluntary energy efficiency labelling scheme for fluorescent lamps was implemented in 1998. (Action Completed)

Initiative	Target	Present Position
<p>To promote the implementation of building energy codes in both public and private sectors (E&MSD)</p>	<ul style="list-style-type: none"> ● To publish in 1999 guidelines to explain and assist in the implementation of Building Energy Codes ● To introduce and promote the Hong Kong Voluntary Energy Efficiency Registration Scheme for Buildings in October 1998 ● To conduct six workshops or seminars in 1999-2000 for three government departments and five private organisations (1998) 	<ul style="list-style-type: none"> ● Lighting and air-conditioning guidelines were published in January 1999. Electrical guidelines were published in August 1999. (Action Completed) ● The Hong Kong Voluntary Energy Efficiency Registration Scheme was launched on 29 October 1998 through a press conference. (Action Completed) ● Five workshops/seminars for government departments and private organisations have been conducted. (Action in Progress: On Schedule)
<p>To implement more energy saving measures for existing government buildings (E&MSD)</p>	<p>To start in mid-1999 a two-year pilot scheme to install innovative energy efficient equipment and to assess its performance (1998)</p>	<p>The scheme was started in May 1999. (Action Completed)</p>
<p>To implement energy saving measures in new government buildings (Government Property Agency/Architectural Services Department)</p>	<p>To include energy saving measures such as computerised building management system, energy efficient air-conditioning and lighting installations in the Cheung Sha Wan Government Offices by end-1999 and the Shatin Government Offices by 2002 (1998)</p>	<p>Energy savings measures have been included in the Cheung Sha Wan Government Offices. Planning for the Shatin Government Offices is on schedule. (Action in Progress: On Schedule)</p>

Initiative	Target	Present Position
<p>To conduct energy audits and implement energy management measures in government buildings to save energy (EGMSD)</p>	<ul style="list-style-type: none"> To complete energy audits of all major government buildings by 2001 To ensure new government buildings to be fitted with appropriate energy saving equipment (1998 and 1996) 	<ul style="list-style-type: none"> We have completed 100 audits and 52 audits are under way. (Action in Progress: On Schedule) All new government buildings are being designed and fitted with energy efficient lighting, and air conditioning equipment. (Action Completed)
<p>To assess the adequacy of the Buildings (Energy Efficiency) Regulation introduced in 1995 (Buildings Department)</p>	<p>To complete a review of the Overall Thermal Transfer Value requirements in private buildings by mid-1999 (1998)</p>	<p>The review was completed in mid-1999. (Action Completed)</p>
<p>To assess the effectiveness of voluntary energy efficiency labelling schemes for household appliances (EGMSD)</p>	<p>To review in 1999 the labelling scheme for refrigerators (1998)</p>	<p>The scheme document for refrigerators was reviewed and revised in January 1999. (Action Completed)</p>
<p>To gradually implement the draft building energy codes starting from 1998 (EGMSD)</p>	<ul style="list-style-type: none"> To implement Lighting, Air-conditioning and Electrical Codes in 1998-1999 To implement Lift and Escalator Code in 2000 (1997) 	<ul style="list-style-type: none"> Lighting and Air-conditioning Codes were implemented on 29 October 1998. Electrical Code was implemented on 30 June 1999. (Action Completed) Draft Lift and Escalator Code was completed and consultation held with relevant parties. The draft is being revised for implementation. (Action in Progress: On Schedule)

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The extent to which the energy efficiency measures are being implemented in government/private buildings	To encourage the adoption of energy efficiency measures in government/private buildings

We will undertake the following initiatives to deliver results in this area -

Initiative	1999 Target
To formulate policy options on the management of greenhouse gas emissions (PELB)	To work out a package of proposed policy options arising from a consultancy study on greenhouse gas emissions
To establish current energy consumption benchmarks and future energy consumption targets (EGMSD)	To start, in 2000, a study to establish energy consumption indicators and targets for selected segments in the transport and commercial sectors
To encourage the use of renewable energy in buildings (EGMSD)	<ul style="list-style-type: none"> ● To start, in 2000, a study to establish requirements and specifications for renewable energy equipment appropriate to Hong Kong conditions ● To commission, in 2001, a pilot programme to gather data and to assess the requirements for incorporating photovoltaic panels in an existing government office building to generate electricity for lighting
To raise awareness of energy efficiency considerations in the transport sector (EGMSD)	To devise a new energy efficiency labelling scheme for vehicles by end-2000
To introduce statutory requirements on energy efficiency and conservation (EGMSD)	To consult the community on the proposed statutory requirements in 2001

Initiative	1999 Target
<p>To promote the wider adoption of Water-cooled Air Conditioning Systems (WACS) in the Hong Kong Special Administrative Region (EGMSD)</p>	<ul style="list-style-type: none"> ● To study, in 2001, the implementation of a district WACS at Southeast Kowloon Development ● To examine, by late 2001, the technical, financial and institutional requirements to facilitate the conversion to WACS in existing non-domestic premises in Wanchai and Causeway Bay ● To examine, in 2001, the development priorities and the control requirements for the phased implementation of WACS throughout Hong Kong

4

Plan for sustainability

Sustainability is not simply an environmental issue. Creating sustainable patterns of development - those which allow increasing quality of life for individuals while reducing the burden that human societies put on the environment - involves almost every Bureau and Department within Government. The role of the Environment Division of this Bureau is to ensure that value is put on the environment in the decision-making process, and to help in the establishment of institutions that work to integrate achievement of environmental goals with economic and social objectives.

Progress Made

During the past 12 months, 18 environmental impact assessments were completed and a strategic environmental impact assessment of future transport options completed as part of the comprehensive transport strategy review. The latter has been particularly helpful in identifying the range of issues that will need to be dealt with in future to tackle the problems that road traffic could raise for Hong Kong's environmental conditions.

The publication of the report "Heading Towards Sustainability?" was a milestone in bringing together different environmental trends, so that the extent to which present problems might increase and new ones arise as a consequence of present patterns of activity can be better assessed by Government, academics and the community.

Planning, Environment and Lands Bureau organised four working groups, comprising academics, community and business group representatives, Government staff and some politicians, to help identify possible strategies for improving Hong Kong's environmental performance in the next decade.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative	Target	Present Position
To issue a Green Paper on the development of environmental policy <i>(Planning, Environment and Lands Bureau (PELB))</i>	To publish a Green Paper in 1999 <i>(1998)</i>	Four working groups comprising representatives from different sectors were formed to generate ideas for the development of environmental policy and reported in September 1999. <i>(Action in Progress: Under Review)</i>

Initiative	Target	Present Position
<p>To promote within the public sector environmentally responsible management by requiring all controlling officers within the Government to publish reports on their environmental policies and actions and by encouraging government-owned public corporations to do likewise</p> <p><i>(PELB)</i></p>	<p>All Government departments, agencies and publicly-owned corporations to publish environmental reports from the 1999-2000 financial year</p> <p><i>(1998)</i></p>	<p>Controlling Officers will be required to publish environmental reports starting from 2000.</p> <p><i>(Action in Progress: On Schedule)</i></p>
<p>To support public education on environmental issues and publicity on environmental protection work</p> <p><i>(Environmental Protection Department (EPD))</i></p>	<ul style="list-style-type: none"> ● To launch in 1999 a three-year public education programme to build up public awareness and support to address the environmental problems and issues facing Hong Kong ● To commission a mobile Environment Resources Centre by mid-1999 to enhance the "outreach" activities <p><i>(1998)</i></p>	<ul style="list-style-type: none"> ● Public relations consultant firms will be engaged to implement this three-year public education programme. <i>(Action in Progress: On Schedule)</i> ● The mobile Environment Resources Centre is now scheduled to be commissioned in early 2000. <i>(Action in Progress: Behind Schedule)</i>

Initiative	Target	Present Position
<p>To enhance schools' ability to provide effective environmental teaching</p> <p><i>(Education Department (ED))</i></p>	<ul style="list-style-type: none"> ● To provide schools with updated Guidelines on Environmental Education (EE) in 1999 to strengthen environmental awareness among students ● To conduct 120 primary school and 30 secondary school visits each year starting from the 1998-1999 school year to advise schools on policies, strategies and resources relating to the promotion of EE ● To organise 30 in-service teacher education programmes annually from the 1998-1999 school year to equip teachers with the necessary knowledge and expertise in the promotion of EE ● To provide a catalogue of resources available at the Environmental Education Resource Centre by 1999 <p><i>(1998)</i></p>	<ul style="list-style-type: none"> ● The updated Guidelines on Environmental Education in Schools were distributed to schools in September 1999. <i>(Action Completed)</i> ● As at end-September 1999, a total of 105 primary school and 30 secondary school visits have been conducted. <i>(Action in Progress: Behind Schedule)</i> ● A total of 30 in-service teacher education programmes have been organised in the 1998-1999 school year. <i>(Action in Progress: On Schedule)</i> ● The catalogue was issued to all primary and secondary schools in December 1998. <i>(Action Completed)</i>

Initiative	Target	Present Position
<p>To organise school activities aimed at promoting environmental awareness (ED)</p>	<ul style="list-style-type: none"> ● To enable an increase by 10% in the number of environment clubs in secondary schools in the 1998-1999 school year ● To fund 400 school visits to the Mai Po Nature Reserve each year from the 1998-1999 school year ● To organise 27 residential field study courses, each enrolling 40 pupils, in each of the Sai Kung, Tso Kung Tam and Cheung Chau Field Studies Centres every year from the 1998-1999 school year onwards <p>(1998)</p>	<ul style="list-style-type: none"> ● In 1997-1998, there were 40 environment clubs in secondary schools. 60 environment clubs in secondary schools were set up in the 1998-1999 school year. <i>(Action Completed)</i> ● 400 school visits to the Mai Po Nature Reserve were funded by ED in the 1998-1999 school year. <i>(Action in Progress: On Schedule)</i> ● 27 residential field study courses, each enrolling 40 pupils, have been organised in each of the Sai Kung, Tso Kung Tam and Cheung Chau Field Studies Centres in the 1998-1999 school year. <i>(Action in Progress: On Schedule)</i>
<p>To strengthen co-operation with the Guangdong Authorities on protecting Deep Bay and Mirs Bay (EPD)</p>	<p>To carry out half-yearly audits of the Deep Bay and Mirs Bay Action Plans and to take follow-up actions as agreed under the Hong Kong-Guangdong Environmental Protection Liaison Group (EPLG)</p> <p>(1998)</p>	<p>Half-yearly audits of the Deep Bay and Mirs Bay Action Plans are being conducted. EPLG's work programme for 1999 is being implemented.</p> <p><i>(Action in Progress: On Schedule)</i></p>
<p>To work closely with our counterparts on the Mainland, particularly in Guangdong Province, to achieve our common goal of improving the environment (PELB/EPD)</p>	<p>To start in 1999 discussion with the Guangdong side on possible new initiatives for co-operation</p> <p>(1998 and 1996)</p>	<p>We have proposed to Guangdong greater co-operation on air pollution control measures, conservation, environmental impact assessment and water quality management.</p> <p><i>(Action in Progress: On Schedule)</i></p>

Initiative	Target	Present Position
<p>To review the operation of the implementation of the Environmental Impact Assessment Ordinance (EIAO) (EPD)</p>	<p>To complete a review by mid-1999 (1998)</p>	<p>The review has been completed. Four forums on the review of the EIAO have been held or attended, with the initial findings presented to departments and the PELB in May 1999. Apart from the forums, all Provisional District Boards have been briefed to solicit views. (Action Completed)</p>
<p>To encourage the community as a whole to gradually accept the implications of the "polluter pays" principle (PELB)</p>	<p>To ensure papers and presentations on environment-related projects and activities should incorporate explanations of the capital and recurrent expenses involved, and highlight how these are to be recovered (1996)</p>	<p>Action is being taken under the Waste Reduction Framework Plan and the sewerage programme to explain the need for charges to sustain investments in environmental infrastructure and to encourage more environmentally benign behaviour. (Action in Progress: On Schedule)</p>
<p>To invite individual businesses to play a greater role in protecting the environment (PELB/EPD)</p>	<ul style="list-style-type: none"> ● To encourage individual businesses to conduct environmental and energy audits of their companies ● To encourage individual businesses to appoint a "green manager" within their organisations to promote environmental awareness 	<ul style="list-style-type: none"> ● 11% of companies listed on the stock exchange now publish an environmental report or other documents containing reference to environmental objectives, policies or performance. ● A business sector coalition on the environment has been established.

Initiative	Target	Present Position
	<ul style="list-style-type: none"> To work closely with non-governmental environmental organisations <p>(1993)</p>	<ul style="list-style-type: none"> Representatives of non-governmental organisations (NGOs) are regularly appointed to bodies such as the Advisory Council on the Environment and the Environmental Campaign Committee. Frequent meetings with individual NGOs take place at bureau and departmental level. <p>(Action Completed)</p>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicators –

Indicator	1999 Target
The extent to which the potential environmental impacts of proposed policies and developments are identified sufficiently far in advance to enable re-assessment or implementation of effective remedial or compensation measures	To ensure that all proposals of major new government policies or development projects go through an environmental checklist at the initial planning stage in order to identify potential environmental implications
The extent to which the public is satisfied that the Administration is aware of environmental issues and is responding to the matters that the community is concerned about	To improve public satisfaction with government action on the environment

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To promote greater public participation in the statutory Environmental Impact Assessment (EIA) process (EPD)	To directly notify local District Councils of the availability of EIA reports of designated projects falling within their respective districts and invite comments from the local community

Initiative	1999 Target
<p>To establish effective institutional arrangements to ensure efficient and effective consideration of policies related to the environment and conservation <i>(PELB)</i></p>	<ul style="list-style-type: none"> ● To help establish the proposed Environment and Food Bureau by January 2000 ● To establish a Sustainable Development Unit in 2000 ● To establish consultative and promotional structures to encourage more sustainable approaches to development in 2000
<p>To ensure all major policy and strategic initiatives go through full assessment of their social, environmental and economic implications <i>(PELB)</i></p>	<p>By 2001 to require all major policy and strategic initiatives to undertake "sustainability impact assessment" before recommendations for decisions are made</p>
<p>To strengthen the co-operation and co-ordination between Hong Kong and Guangdong on environmental management and pollution control efforts in areas of mutual concern <i>(EPD/A&FD)</i></p>	<ul style="list-style-type: none"> ● To participate in the Mainland's Second Marine Pollution Baseline Survey ● To discuss with the Guangdong Authorities the setting up of working groups on afforestation and fuel specifications in 1999-2000

5

Reduce noise pollution

In a busy city, noise is constantly present and requires constant vigilance if it is to be kept within acceptable bounds. Increasing traffic volumes, redevelopment within existing built up areas and constant renovation and refurbishment works make noise control one of the most difficult subjects to tackle.

Progress Made

Better than expected overall progress was made with reduction of noise nuisances from construction sites, although a number of particular cases have continued to be the subject of public complaint. A feasibility study into providing direct mitigation measures to reduce traffic noise from existing roads and flyovers was completed in early 1999.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative	Target	Present Position
<p>To review our policy for providing redress against excessive traffic noise from existing roads and flyovers <i>(Environmental Protection Department (EPD))</i></p>	<ul style="list-style-type: none"> To complete the feasibility study on traffic noise mitigation measures for existing roads and flyovers by mid-1998 and by end-1998 respectively <i>(1998 and 1997)</i> To formulate an implementation programme in 1999 <i>(1998)</i> 	<ul style="list-style-type: none"> The road study and flyover study were completed in early 1999. <i>(Action Completed)</i> An implementation programme is being formulated and we aim to consult the public on the formulated programme commencing from early 2000. <i>(Action in Progress: On Schedule)</i>
<p>To reduce noise from highway road surfaces <i>(EPD)</i></p>	<p>To issue guidelines on noise reduction by early 1999 <i>(1998)</i></p>	<p>Guidelines were established in early 1999 and will be adopted for new projects. <i>(Action Completed)</i></p>

Initiative	Target	Present Position
<p>To reduce noise nuisance (EPD)</p>	<ul style="list-style-type: none"> ● To introduce legislation to control the use of percussive powered mechanical equipment in domestic renovation works within the 1999-2000 legislative session ● To require the use of quieter hydraulic methods in 45% of all piling activities by late 1999 ● To require the use of quieter construction equipment in 45% of all Construction Noise Permits for essential works by late 1999 ● To co-ordinate the provision of noise insulation for an additional 1 400 residential units affected by unacceptable noise from new roads by end-1999 ● To co-ordinate the provision of noise insulation for an additional 600 classrooms affected by unacceptable noise from existing noise sources by mid-1999 <p>(1998)</p>	<ul style="list-style-type: none"> ● Consultation with the relevant trade has commenced and a proposal will be formulated by early 2000. <i>(Action in Progress: On Schedule)</i> ● Over half of the piling sites have already adopted the quieter hydraulic methods. <i>(Action Completed)</i> ● Over 70% of the permits issued for essential works have already specified the use of quieter construction equipment. <i>(Action Completed)</i> ● An additional 1 400 dwelling units have been insulated. <i>(Action Completed)</i> ● All 600 additional classrooms have been insulated. <i>(Action Completed)</i>

Initiative	Target	Present Position
To ensure that the railway companies reduce noise by monitoring their noise abatement programmes (EPD)	To monitor the noise abatement programmes of the Mass Transit Railway Corporation and the Kowloon-Canton Railway Corporation scheduled for completion by 1999 and 2002 respectively (1996)	<ul style="list-style-type: none"> Over 90% of the rolling stocks in the urban lines were retrofitted with wheel dampers and the remaining works will be completed by end-1999. Noise abatement measures were installed at six out of 27 locations along the Kowloon-Canton Railway. The whole programme will be completed by 2002. <p>(Action in Progress: On Schedule)</p>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The number of people exposed to excessive noise	To reduce public exposure to excessive noise

We will undertake the following initiative to deliver results in this area -

Initiative	1999 Target
To review the need for tightening the control of daytime construction noise (EPD)	To complete a review in 2000-2001

6

Reduce waste

Hong Kong's economic development and population growth places great stress on our environment. For many years we have been producing too much waste and filling our landfills at an accelerating pace. To reverse this trend and to handle waste in an environmentally responsible way, a ten-year Waste Reduction Framework Plan was launched in 1998. The main objective under the plan is to double the overall rate of reducing, reusing and recycling municipal waste by 2007.

Progress Made

The Waste Reduction Framework Plan was launched in November 1998 and the Waste Reduction Committee was established on 6 February 1999 to help co-ordinate and focus waste reduction measures and advise on priorities. Waste separation bins were introduced into every public housing estate by August 1999. The Waste Reduction Committee and its task force on construction and demolition waste have prepared a strategy for the management of construction and demolition materials and for the introduction of charging for disposal of waste in landfills.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative	Target	Present Position
To examine the feasibility of developing Bulk Waste Reduction Facilities in Hong Kong to reduce further the amount of waste being disposed in landfills <i>(Environmental Protection Department (EPD))</i>	To complete a feasibility study on waste-to-energy incinerators by March 1999 <i>(1998 and 1996)</i>	Additional time is required to complete the site assessment process. The feasibility study will be completed by late 1999. Public consultation will proceed thereafter for completion in 2000. <i>(Action in Progress: Behind Schedule)</i>
To engage the support of different sectors of the community in implementing the waste reduction strategy <i>(Planning, Environment and Lands Bureau (PELB))</i>	To set up a Waste Reduction Committee in early 1999 <i>(1998)</i>	The Waste Reduction Committee was formed on 6 February 1999. <i>(Action Completed)</i>

Initiative	Target	Present Position
<p>To promote public awareness of and support for the Waste Reduction Framework Plan (PELB)</p>	<p>To organise a series of promotional and educational activities after the Plan is launched in late 1998 (1998)</p>	<p>A major publicity campaign was launched in 1998. The Environmental Campaign Committee has also organised activities to publicise the need for waste separation in public housing estates and some private housing developments. (Action Completed)</p>
<p>To encourage the adoption of waste reduction and avoidance initiatives within the commercial and industrial sectors by establishing a scheme to recognise the efforts of those companies achieving their targets (EPD)</p>	<p>To launch the “Wastewi\$e Scheme” within the financial year 1999-2000 (1998)</p>	<p>The “Wastewi\$e Scheme” was launched in June 1999. (Action Completed)</p>
<p>To maximise the amount of public fill used in reclamation and earth-filling projects (Civil Engineering Department (CED))</p>	<ul style="list-style-type: none"> ● To re-examine, starting from end-1998, all public works projects committed before March 1998 to identify opportunities to increase use of public fill ● To direct at least 80% of the annual construction and demolition material generated to public filling areas starting from end-1998 (1998) 	<ul style="list-style-type: none"> ● A total of 19 projects were examined in 1998 and 12 projects have been studied in 1999. Two projects were successfully identified to increase the use of public fill. (Action in Progress: On Schedule) ● About 78% of the total construction and demolition material generation was directed to public filling areas this year. In order to increase the intake quantities at each outlet, the operation hours will be extended and three more public filling outlets will be provided before end-1999. (Action in Progress: Behind Schedule)

Initiative	Target	Present Position
<p>To provide off-site sorting facilities to separate construction and demolition waste from public fill to minimise the amount delivered to the landfills (CED)</p>	<p>To complete detailed planning of two new sorting facilities by 2000 (1998)</p>	<p>The detailed planning works have been completed. (Action Completed)</p>
<p>To provide a network of environmentally sound public filling barging points to minimise the environmental and traffic impacts of long haulage arising from delivering public fill to reclamation sites by road (CED)</p>	<ul style="list-style-type: none"> ● To complete studies for implementing a network of public filling barging points on Hong Kong Island by early 2000 ● To start the study for one public filling barging point in either the New Territories or Kowloon in mid-1999 <p>(1998)</p>	<ul style="list-style-type: none"> ● The studies were completed in September 1999. (Action Completed) ● The study for the barging point in Western New Territories is now at the stage of consultant selection and will start in November 1999. (Action in Progress: Behind Schedule)
<p>To introduce legislative control and produce a code of practice for clinical waste management for producers, collectors and disposal facilities (EPD)</p>	<p>To introduce legislation and promulgate the code of practice by end-1999 (1998)</p>	<p>The Waste Disposal (Amendment) Bill is scheduled to be submitted to the Legislative Council in late 1999, followed by promulgation of the code of practice. (Action in Progress: On Schedule)</p>
<p>To ban the import of hazardous waste from developed countries into or through the Hong Kong Special Administrative Region in accordance with the recent decision of the Basel Convention (EPD)</p>	<ul style="list-style-type: none"> ● To introduce an administrative ban by late 1998 ● To introduce legislation for the ban in 1999 <p>(1998)</p>	<ul style="list-style-type: none"> ● The administrative ban was introduced in December 1998. (Action Completed) ● The legislation is scheduled to be submitted to the Legislative Council in late 1999. (Action in Progress: On Schedule)

Initiative	Target	Present Position
<p>To introduce a mandatory requirement for the provision of space for material recovery activities in new private buildings <i>(Buildings Department)</i></p>	<p>To introduce legislation and regulations in 1999 <i>(1998)</i></p>	<p>The legislation will be introduced into the Legislative Council in 1999-2000. <i>(Action in Progress: Behind Schedule)</i></p>
<p>To promote the beneficial reuse of inert construction and demolition material <i>(CED)</i></p>	<p>To identify opportunities in 1999-2000 for recycling inert construction and demolition material <i>(1998)</i></p>	<p>A desk study on the opportunity for recycling inert construction and demolition material is in progress and will be completed by end-1999. <i>(Action in Progress: On Schedule)</i></p>
<p>To review the statutory Waste Disposal Plan <i>(EPD)</i></p>	<p>To commence the review in late 1998 for completion in 1999 <i>(1998)</i></p>	<p>The review of the Waste Disposal Plan was completed in mid-1999. <i>(Action Completed)</i></p>
<p>To implement the ten-year Waste Reduction Framework Plan beginning in 1998. We will examine all processes to see where we can be more efficient in handling and reducing waste. Under the plan, various measures will be implemented to reduce the growth of municipal waste requiring disposal with the aim of extending the life of existing strategic landfills by 11 years <i>(PELB/EPD)</i></p>	<p>To commence the implementation of the Waste Reduction Framework Plan in 1998 <i>(1997)</i></p>	<p>Since the publication of the Waste Reduction Framework Plan in November 1998, actions have been taken to implement various proposals under the Plan. This includes the setting up of the Waste Reduction Committee in February 1999 and the various Waste Reduction Task Forces (covering public housing, private housing, hotel, construction industry, government and airport). Sites have been made available for recycling operations; the Waste-to-Energy Incineration Facility Study is in progress; publicity campaign on source separation of waste has been launched; a study on material recovery facilities has commenced and a major publicity campaign has been launched. <i>(Action Completed)</i></p>

Initiative	Target	Present Position
<p>In 1998-1999, to draw up a strategy for the disposal of clinical waste, animal carcasses and other special wastes (PELB/EPD)</p>	<p>To draw up the strategy for the disposal of clinical waste, animal carcasses and other special wastes by the end of 1999 (1997)</p>	<p>The supplementary environmental impact assessment confirmed the suitability of the Chemical Waste Treatment Centre in processing clinical waste. The site for an animal waste cremator is being considered. (Action in Progress: On Schedule)</p>
<p>To build additional refuse transfer stations in the Northwest New Territories and the Outlying Islands at a cost of \$1 billion over the next three years (EPD)</p>	<ul style="list-style-type: none"> ● To complete the construction of transfer stations in the Outlying Islands by 1999 ● To complete the construction of the Northwest New Territories transfer station in 1999 <p>(1996)</p>	<ul style="list-style-type: none"> ● Construction of stations at Sok Kwu Wan and Yung Shue Wan is in progress and scheduled to be completed in 2000. ● The construction of a refuse transfer station in Northwest New Territories will start at end-1999. <p>(Action in Progress: Behind Schedule)</p>
<p>To identify suitable storage and disposal option for low-level radioactive waste and to close down existing unsatisfactory storage facilities (EPD)</p>	<p>To complete in early 1998 a low-level radioactive waste storage facility at Siu A Chau, and to close down existing unsatisfactory storage facilities after completion of the new facility (1996)</p>	<p>Alternative storage and disposal options are being investigated. (Action in Progress: Under Review)</p>
<p>To modify 13 old landfill sites in the urban areas over the next ten years at a cost of \$2.3 billion, making them environmentally safe for alternative use (EPD)</p>	<p>To complete restoration facilities at 12 of the 13 landfill sites by end-2000 (1995)</p>	<p>Restoration facilities at seven landfill sites have been completed. Construction works at five others are in progress. Restoration of the last landfill site at Pillar Point Valley is under planning. (Action in Progress: On Schedule)</p>

Initiative	Target	Present Position
To introduce charging for privately collected waste (except household waste) delivered to landfills once agreement has been reached on the detailed charging arrangements with affected parties (PELB)	To introduced charging scheme in 2000 (1995)	Relevant parties are being consulted on latest charging proposals. <i>(Action in Progress: On Schedule)</i>

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
Annual amount of waste going to landfills	To reduce the annual amount of waste going to landfills

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
To identify long-term disposal outlets for dredged mud and construction and demolition material (CED)	To start a strategic study for the long-term co-disposal of dredged mud and construction and demolition material in 2000
To provide off-site sorting facilities to separate construction and demolition waste from public fill to minimise the amount delivered to the landfills (CED)	<ul style="list-style-type: none"> ● To commission a temporary sorting facility at Tseung Kwan O Area 137 by early 2000 ● To consult the public, in early 2000, on the implementation of a long-term sorting facility in Eastern District by 2001-2002

Initiative	1999 Target
<p>To provide a network of environmentally sound public filling barging points to minimise the environmental and traffic impacts of long haulage arising from delivering public fill to reclamation sites by road</p> <p><i>(CED)</i></p>	<ul style="list-style-type: none"> ● To commission, in December 1999, two temporary barging points on Hong Kong Island ● To consult the public in early 2000 on the implementation of long-term barging points at Eastern, Central and Western and Southern Districts by 2001-2002 ● To complete the study for a long-term public filling barging point in the Western New Territories by late 2000
<p>To introduce legislative control and produce a code of practice for clinical waste management for producers, collectors and disposal facilities</p> <p><i>(EPD)</i></p>	<p>To modify the incineration facilities at the Chemical Waste Treatment Centre to enable it to treat clinical waste in 2001</p>

7

Improve water quality

The quality of inland and coastal waters has a direct influence on the health of the community, on opportunities for recreation, on use of water areas for food production, and on marine ecology. Years of past damage from industrial, human and agricultural pollution need to be made good, infrastructure developed to reduce the impact from present and future populations and regional co-operation increased so as to reduce external pollution loads.

Progress Made

Progress on the Strategic Sewage Disposal Scheme Stage I collection tunnel works picked up rapidly from the beginning of 1999. By mid-September 1999, 55% had been dug, compared with 18% in January 1999. Satisfactory progress has also been made in the planning of additional sewerage infrastructure to help protect Deep Bay and 23 kilometres of new interceptor and trunk sewers has been built throughout the territory.

To achieve results in this area, various initiatives have been undertaken in past years. Details are set out below –

Initiative	Target	Present Position
To assess the need for a programme to control toxic substances that pollute the marine environment from many diverse sources <i>(Environmental Protection Department (EPD))</i>	To complete the assessment in 2002 <i>(1998)</i>	A study will be commissioned in October 1999. <i>(Action in Progress: On Schedule)</i>
To assess sewerage infrastructure needs to meet housing demands <i>(EPD)</i>	To start in 1999-2000 re-assessment of Sewerage Master Plans (SMPs) <i>(1998)</i>	Review of the SMPs for Tuen Mun, Tsing Yi, Central and East Kowloon and Outlying Islands commenced in February 1999. <i>(Action Completed)</i>

Initiative	Target	Present Position
<p>To develop a comprehensive programme of capital works to upgrade the sewerage infrastructure to remove sewage out of Deep Bay (EPD)</p>	<ul style="list-style-type: none"> ● To complete a review of Yuen Long and Kam Tin sewerage infrastructure by end-1998 ● To complete a review of North District Sewerage Master Plan by end-2001 (1998) 	<ul style="list-style-type: none"> ● The review was completed in January 1999. (Action Completed) ● The review will commence in early 2000. (Action in Progress: On Schedule)
<p>To upgrade preparedness to deal with oil spills (Marine Department)</p>	<p>To establish by end-1999 the framework for upgrading the existing Oil Pollution Contingency Plan (1998)</p>	<p>A framework is being prepared. (Action in Progress: On Schedule)</p>
<p>To provide disinfection for all major sewage discharges in Hong Kong (EPD)</p>	<p>To complete by early 2000 the formulation of a ten-year programme to upgrade major sewage treatment facilities to cut down the overall bacterial loads from sewage by 99.9% (1998)</p>	<p>Disinfection requirements for major sewage treatment facilities have been incorporated into all SMP review studies. (Action in Progress: On Schedule)</p>
<p>To determine detailed works programme requirements for further stages of the Strategic Sewage Disposal Scheme (SSDS) (EPD)</p>	<ul style="list-style-type: none"> ● To commence a preliminary project feasibility study (PPFS) for the development of SSDS Stage III/IV in late 1997 for completion in 1999 (1998 and 1997) ● To complete a PPFS for the development of SSDS Stage II in 2000 (1998) ● To commence the PPFS for SSDS Stage II in late 1998 (1997) 	<ul style="list-style-type: none"> ● The PPFS was completed in March 1999. (Action Completed) ● The PPFS for SSDS Stage II is in progress. (Action in Progress: On Schedule) ● The PPFS for SSDS Stage II was commenced in June 1999. (Action Completed)

Initiative	Target	Present Position
To start bioremediation and dredging works in the Shing Mun River in order to remove contaminated sediments <i>(Civil Engineering Department)</i>	To complete the design in mid-2000 and start work in 2001 <i>(1998)</i>	PPFS was completed in March 1999. Specialist Consultants will be employed in early 2000 for carrying out detailed design. <i>(Action in Progress: On Schedule)</i>
To review the operation of the Water Pollution Control Ordinance and the effluent standards laid down in the associated Technical Memorandum <i>(EPD)</i>	To complete the review by end-1999 <i>(1998)</i>	Provisional list of changes required to improve enforcement efficiency and to streamline the licensing provisions has been drawn up. Draft revised Technical Memorandum standards have been prepared. <i>(Action in Progress: On Schedule)</i>
To review the cumulative impact of coastal developments on the quality of our surrounding waters <i>(EPD)</i>	To develop and apply an updated suite of water quality models for waters around Hong Kong by mid-2000 <i>(1998)</i>	All survey work completed and data being used to calibrate new suite of models. Scenarios for assessment of cumulative impacts agreed upon. Assessments will be completed by mid-2000. <i>(Action in Progress: On Schedule)</i>
To complete Stage I of the SSDS <i>(EPD)</i>	To complete Stage I of the SSDS by 2000 <i>(1997)</i>	In total, 13 km (55%) of the 23.6 km tunnel system has been completed up to mid-September 1999. A major mechanical problem with the tunnel boring machine for the tunnel from Kwun Tong to To Kwa Wan occurred in June 1999. With the additional ground treatment work found necessary during tunnel excavation, delay to the overall target completion date of end-2000 is anticipated. The completion date is currently under review. <i>(Action in Progress: Behind Schedule)</i>
To commission the remaining stages of the SSDS subject to results of the studies on SSDS Stage II and Stage III/IV <i>(EPD)</i>	To commission these remaining stages of the SSDS in 2004 <i>(1997)</i>	The PPFS for Stage III/IV was completed in March 1999. The PPFS for Stage II commenced in June 1999. <i>(Action in Progress: Behind Schedule)</i>

Initiative	Target	Present Position
To continue with the implementation of various sewerage programmes to improve the sewerage system in the territory other than those under the High Priority Programme (HPP) (EPD)	To spend about \$4.5 billion over the next five years in non-HPP sewerage improvement works (1996)	It is planned to spend \$530 million in 1999-2000 and about \$5.3 billion (December 1998 price) over the next five years on improvement works. (Action in Progress: Under Review)
To ensure timely commissioning of the SMP works within the HPP and closely monitor progress of the rest of the programme (EPD)	To commission the SMP works within the HPP before mid-1997 (1996)	17 out of 27 contracts for the SMP works under the HPP have been completed. Seven other contracts are not scheduled for completion until mid-1999 as a result of delays arising from difficult site conditions and contractors' poor performance. Works for the remaining three minor contracts related to the Northwest Kowloon SMP (Stage III Phase II) commenced in April 1998 and are scheduled for completion in January 2003. The review of Central and East Kowloon SMP commenced in February 1999 and is scheduled for completion in April 2000. (Action in Progress: Under Review)

Looking Forward

In the next 12 months, we will assess our performance in respect of this KRA against the following indicator –

Indicator	1999 Target
The extent to which the water quality objectives are being met	To reduce the number of exceedances of water quality objectives

We will undertake the following initiatives to deliver results in this area –

Initiative	1999 Target
<p>To assess sewerage infrastructure needs to meet housing demands and new developments <i>(EPD)</i></p>	<p>To start the reviews of the SMPs for Hong Kong Island and North District & Tolo Harbour in early 2000 and the reviews of the SMPs for Tsuen Wan & West Kowloon and Port Shelter in 2000-2001</p>
<p>To protect the water quality of Deep Bay and to improve the sewerage infrastructure in Yuen Long and Kam Tin to cope with projected population increases <i>(Drainage Services Department)</i></p>	<p>To provide trunk sewers to Yuen Long South by 2005</p>
<p>To upgrade preparedness to deal with oil spills <i>(Marine Department)</i></p>	<p>To develop and implement a comprehensive Oil Spill Response Plan by end-2000</p>