### Message

Environment policy in Hong Kong is at a watershed. Since 1989 it has been directed towards the control of pollution, under the ten-year programme set out in the White Paper "Pollution, A Time to Act". Efforts to reduce pollution must be maintained, especially important being measures to cut harmful emissions from vehicles and to complete the construction of an effective sewage treatment system. This is essential to the health and the enjoyment of our city.

But control of harmful pollution goes only part of the way towards establishing for ourselves and our children a living environment that will continue to support our economic and social needs. The environment we live in is the product of our economic activity and the choices we make about consumption, transport, energy use, or recreation. In turn, the quality of our environment affects the potential for our economy and society, and the health of the natural environment around us does not just affect our enjoyment, it provides a litmus test for the future health of the whole city.

Recognising the indivisible bonds between our economic, social and environmental choices is crucial to our being able, together, to build a sustainable future for Hong Kong. In this booklet we have begun to draw together some of the other issues, such as efficiency in resource use, conservation of nature and better waste management, which, together with pollution control, shape our environment. We have also tried to make clearer the process through which policy develops. It is just a start. It does not describe all the programmes of work on the environment - for that you need to look at Departmental reports as well. But it does set out the new initiatives we will be starting and it lays out the developing direction for an environmental policy that will help to sustain Hong Kong. We welcome comments and ideas on our priorities and presentation. Above all, I welcome everyone's participation in the common enterprise of creating a healthier, sustaining environment for our city and our home, Hong Kong.

(Bowen Leung) 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 in pursuing this Policy Objective are -

- to meet all water quality objectives
- to meet all air quality objectives
- to ensure the community is protected from excessive noise
- to ensure the avoidance of waste and the cost-effective, hygienic and environmentally responsible handling of refuse
- to improve our overall energy efficiency
- to conserve the natural environment and safeguard ecological integrity
- to improve public satisfaction so that a majority of the public considers that environmental conditions are improving rather than deteriorating

### 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 –

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The following sections of this booklet explain the importance of these KRAs, describe the broad thrust of our efforts, and outline the indicators which we are using to assess progress. Each section lists the new key initiatives being taken to achieve our objectives and pinpoints the agency accountable for each initiative and the specific targets which we intend to meet.

# Identify problems and needs

The pressures put on the living environment by the community are constantly changing, as are the expectations that we have of our environment. To identify the problems and needs both of the community and of the physical environment that has to support us, the Administration –

- listens to the community by monitoring media reports, through contact with interest groups, academics and business, and by receiving the views of District Boards, the Legislative Council, the Advisory Council on the Environment, the Energy Advisory Committee and the Country and Marine Parks Board;
- analyses community views, academic and consultancy studies, research and monitoring reports and other data; and
- carries out assessments of the environmental impact of infrastructure and planning proposals designed to meet objectives for economic and social development.

#### Indicators

Our indicators of progress in this area are -

- the extent to which the potential environmental impacts of proposed policies and developments are identified sufficiently far in advance to enable reassessment or implementation of effective remedial or compensation measures
- 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

Initiatives	Targets
Air	
To establish the sources, volume and trends of Hong Kong's greenhouse gas emissions (Environmental Protection Department (EPD))*	To complete within 1999 a consultancy study to provide reliable data to develop policy options
To study the extent of cross- boundary air pollution in the Pearl River Delta Region <i>(EPD)</i>	To start a joint study with Guangdong Authorities by April 1999
Water	
To assess the need for a programme to control toxic substances that pollute the marine environment from many diverse sources (EPD)	To complete the assessment in 2002
To assess sewerage infrastructure needs to meet housing demands (EPD)	To start in 1999-2000 re- assessment of Sewerage Master Plans (SMPs)

\* the brackets denote the agency with lead responsibility for the initiative

#### Initiatives

#### Nature Conservation

To establish data for considering a strategy for the conservation of the finless porpoise in Hong Kong (*Agriculture and Fisheries Department*)

# Energy Efficiency and Conservation

To explore the concept of introducing energy services companies (ESCOs) to enhance energy efficiency and conservation within the Administration

(Electrical and Mechanical Services Department) To complete a study on the biology of the finless porpoise in 2001

To conduct a preliminary feasibility assessment and recommend a way forward by March 2000

#### Targets



#### **Define solutions**

Defining the possible solutions to environmental problems requires technical evaluation of options. This involves activities ranging from consideration of statutory control schemes or standards, to large scale studies into infrastructure development engaging outside consultancy support. It also requires evaluation of both the social and economic implications and the public acceptability of any proposals. This further involves analysis of financial and societal implications and promoting public discussion of proposals through the issue of Green Papers or other consultation documents.

#### Indicators

Our indicators of progress in this area are -

- the publication of practical proposals for improving environmental performance
- the time taken to establish a programme of remedial or compensation measures to redress the environmental impacts of policies or developments

Initiatives	Targets
<b>General</b> To issue a Green Paper on the development of Environmental Policy ( <i>Planning, Environment and Lands</i> <i>Bureau</i> )	To publish a Green Paper in 1999

Initiatives	Targets
Air	
To study the feasibility of a clean alternative to diesel light buses (Environmental Protection Department (EPD))	To consult the affected trades on the details of the study in 1999
To study ways of strengthening inspection of petrol vehicle emissions (EPD)	To propose an exhaust emission inspection programme by December 1998
To develop ways to improve indoor air quality <i>(EPD)</i>	To develop a programme for improving indoor air quality by end 1999
To study the use of chassis dynamometer tests of the smoke emissions of heavy duty vehicles <i>(EPD)</i>	To launch a pilot scheme by end 1998
Noise	
To study the feasibility of retrofitting noise barriers and enclosures on existing flyovers <i>(EPD)</i>	To complete feasibility study by end 1998 and formulate an implementation programme in 1999
Waste	
To examine the feasibility of developing waste-to-energy incinerators in Hong Kong <i>(EPD)</i>	To complete a feasibility study on waste-to-energy incinerators by March 1999

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Initiatives	Targets
Water To develop a comprehensive programme of capital works to upgrade the sewerage infrastructure to remove sewage out of Deep Bay <i>(EPD)</i>	<ul> <li>To complete a review of Yuen Long and Kam Tin sewerage infrastructure by end 1998</li> <li>To complete a review of North District Sewerage Master Plan by end 2001</li> </ul>
To upgrade preparedness to deal with oil spills <i>(Marine Department)</i>	To establish by end 1999 the framework for upgrading the existing Oil Pollution Contingency Plan
Nature Conservation To develop a strategy for wetland protection and compensation (Agriculture and Fisheries Department (A&FD))	<ul> <li>To complete a study on the methodology for wetland compensation in early 2001</li> <li>To recommend a strategy by 2001</li> </ul>
To develop programmes for the conservation of the Chinese white dolphin (A&FD)	To recommend a conservation programme by 2000

#### Initiatives

### Energy Efficiency and Conservation

To assess the viability of wider adoption of Water-cooled Air Conditioning Systems in Hong Kong

(Electrical and Mechanical Services Department)

- To complete a preliminary feasibility study by April 1999 to identify the problems and constraints involved
- 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

#### Targets



#### Build understanding and support

While some solutions to environmental problems and needs can be achieved by the Administration using existing resources, most require either a change of attitudes or habits among sections of the community or the allocation of new resources. The issue of White Papers and other statements to explain policy; organisation of public and school education campaigns; dissemination of information and advice to industry and business groups; or support for community initiatives and training programmes are all activities that we undertake to help the community address environmental issues. The Administration also provides briefings to the Legislative Council's Environmental Affairs Panel, presents and explains draft legislation to bills committees, and presents and explains funding requests to the Finance Committee.

#### Indicator

Our main indicator of progress in this area is the extent to which the public and the legislature are prepared to provide funding for environmental programmes and will support institutional changes to achieve environmental objectives.

Initiatives	Targets
Environmental Management	
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 ( <i>Planning, Environment and Lands</i> <i>Burean (PELB)</i> )	All Government departments, agencies and publicly-owned corporations to publish environmental reports from the 1999-2000 financial year
To engage the support of different sectors of the community in implementing the waste reduction strategy (PELB)	To set up a Waste Reduction Committee in early 1999
To promote public awareness of and support for the Waste Reduction Framework Plan (PELB)	To organise a series of promotional and educational activities after the Plan is launched in late 1998
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 <i>(Environmental Protection Department (EPD))</i>	To launch the "Wastewi\$e Scheme" within the financial year 1999-2000

Initiatives	Targets
<b>Education</b> To support public education on environmental issues and publicity on environmental protection work <i>(EPD)</i>	<ul> <li>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</li> <li>To commission a mobile</li> </ul>
	Environment Resource Centre by mid-1999 to enhance the "outreach" activities
To enhance schools' ability to provide effective environmental teaching ( <i>Education Department (ED)</i> )	<ul> <li>To provide schools with updated guidelines on Environmental Education (EE) in 1999 to strengthen environmental awareness among students</li> <li>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</li> </ul>

Initiatives	Targets
	<ul> <li>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</li> <li>To provide a catalogue of resources available at the Environmental Education Resource Centre by 1999</li> </ul>
To organise school activities aimed at promoting environmental awareness (ED)	<ul> <li>To enable an increase by 10% in the number of environment club in secondary schools in the 1998-1999 school year</li> <li>To fund 400 school visits to the Mai Po Nature Reserve each year from the 1998-1999 school year</li> <li>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</li> </ul>

Initiatives	Targets
Nature Conservation	
To launch a three-year "Green Country Parks in a New Century" publicity programme starting in October 1998 (Agriculture and Fisheries Department (A&FD)) To organise more visitor liaison	<ul> <li>To conduct 60 activities each year</li> <li>To involve 4 000 members of the public in these activities each year</li> </ul> To organise five visitor liaison
group meetings on the management of country and marine parks (A&FD)	group meetings in 1999
To launch a public education programme on conservation of country and marine parks through publishing booklets, posters and guided tours (A&FD)	<ul> <li>To distribute 250 000 booklets and 20 000 posters in 1999</li> <li>To conduct 400 guided tours in 1999</li> </ul>

Initiatives	Targets
Energy Efficiency and Conservation	
To promote the implementation of energy audit surveys and energy management opportunities within both public and private sectors (Electrical and Mechanical Services Department (E&MSD))	<ul> <li>To disseminate information in 1999 on the experience gained and opportunities identified during the Government's pilot Energy Management Opportunity programmes</li> <li>To prepare guidelines for retrofitting existing buildings with energy efficient equipment by mid-1999</li> </ul>
To provide more information from the Hong Kong Energy End-use Database <i>(E&amp;MSD)</i>	To make available to the public basic historical energy end-use data on Hong Kong's energy use by 1999
To raise awareness of energy efficiency considerations in procuring office equipment (E&MSD)	To plan a new energy efficiency labelling scheme for office equipment and to provide a short-list of equipment for labelling by end 1999
To extend awareness of energy efficiency considerations in procuring household appliances (E&MSD)	To introduce the voluntary energy efficiency labelling scheme for clothes dryers in 1999

Initiatives	Targets
To promote the implementation of building energy codes in both public and private sectors ( <i>E&amp;MSD</i> )	<ul> <li>To publish in 1999 guidelines to explain and assist in the implementation of Building Energy Codes</li> <li>To introduce and promote the Hong Kong Voluntary Energy Efficiency Registration Scheme for Buildings in October 1998</li> <li>To conduct six workshops or seminars in 1999-2000 for three government departments and five private organisations</li> </ul>



#### Deliver or implement solutions

The delivery or implementation of measures to minimise or mitigate the effects of human activity on the living environment, protect health and promote enjoyment of our environment is our major area of activity. This may involve the building of new infrastructure or introduction and enforcement of new legislation. It also requires the effective maintenance of existing infrastructure and continued enforcement of established standards and controls. Continued explanation of the need for programmes, interaction with the community to resolve implementation problems, and removal of administrative barriers to private sector or community initiatives are also essential activities.

#### Indicator

Our indicator of progress in this area is the number of initiatives delivered against plan.

Cross Boundary Co-operationTo strengthen co-operation with Guangdong Authorities on protecting Deep Bay and Mirs BayTo carry out half-yearly audit 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	rs take eed tal

Initiatives	Targets
Air To phase out diesel taxis and replace them with liquefied petroleum gas (LPG) taxis as soon as possible <i>(EPD)</i>	<ul> <li>To enable all newly registered taxis to use LPG by end 2000</li> <li>To reduce particulates emitted by the current diesel vehicle fleet by 30%</li> </ul>
To ban the sale of leaded petrol in Hong Kong in 1999 <i>(EPD)</i>	To introduce the necessary legislation by early 1999
To step up enforcement action against smoky vehicles (EPD/Hong Kong Police Force)	<ul> <li>To introduce the use of portable smoke testing equipment by Police officers for enforcement against smoky vehicles in 1999</li> <li>To introduce legislation to increase the fixed penalty fine for smoky vehicles in the 1999-2000 legislative session</li> </ul>
To introduce emission standards for motorcycles <i>(EPD)</i>	To implement new standards in 1999

Initiatives	Targets
To improve control of the disposal of ozone depleting substances <i>(EPD)</i>	To implement by 1999 a programme to dispose of ozone depleting substances through the Chemical Waste Treatment Centre
To improve the assessment of the air quality of Hong Kong <i>(EPD)</i>	To establish an additional air quality monitoring station in Tung Chung in 1999
To step up inspection and enforcement in workplaces with occupational safety and health risks from hazardous vapour <i>(Labour Department)</i>	To undertake at least 50 000 inspection visits to workplaces each year from 1999
Noise To reduce noise from highway road surfaces (EPD)	To issue guidelines on noise reduction by early 1999

Initiatives	Targets
To reduce noise nuisance (EPD)	• 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

Initiatives	Targets
Waste To maximise the amount of public fill used in reclamation and earth- filling projects ( <i>Civil Engineering Department (CED</i> ))	<ul> <li>To re-examine, starting from end 1998, all public works projects committed before March 1998 to identify opportunities to increase use of public fill</li> <li>To direct at least 80% of the annual construction and demolition material generated to public filling areas starting from end 1998</li> </ul>
To provide off-site sorting facilities to separate construction and demolition waste from public fill to minimise the amount delivered to the landfills <i>(CED)</i>	To complete detailed planning of two new sorting facilities by 2000
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 <i>(CED)</i>	<ul> <li>To complete studies for implementing a network of public filling barging points on Hong Kong Island by early 2000</li> <li>To start the study for one public filling barging point in either the New Territories or Kowloon in mid-1999</li> </ul>

Initiatives	Targets
To step up enforcement and prosecution actions against unauthorised developments under the Town Planning Ordinance in rural New Territories, including those environmentally sensitive areas and the Action Areas endorsed by the Special Committee on the cleaning up of Black Spots in the New Territories <i>(Planning Department)</i>	To undertake investigation of unauthorised developments within 28 days upon the receipt of complaint for 90% of the cases starting from late 1998
To introduce legislative control and produce a code of practice for clinical waste management for producers, collectors and disposal facilities <i>(EPD)</i>	To introduce legislation and promulgate the code of practice by end 1999
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 <i>(EPD)</i>	<ul> <li>To introduce an administrative ban by late 1998</li> <li>To introduce legislation for the ban in 1999</li> </ul>

Initiatives	Targets
To introduce a mandatory requirement for the provision of space for material recovery activities in new private buildings <i>(Buildings Department)</i>	To introduce legislation and regulations in 1999
To promote the beneficial reuse of inert construction and demolition material (CED)	To identify opportunities in 1999-2000 for recycling inert construction and demolition material
Water	
To provide disinfection for all major sewage discharges in Hong Kong <i>(EPD)</i>	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%
To determine detailed works programme requirements for further stages of the Strategic Sewage Disposal Scheme (SSDS) <i>(EPD)</i>	<ul> <li>To complete in 1999 a preliminary project feasibility study (PPFS) for development of SSDS Stage III/IV</li> <li>To complete in 2000 a PPFS for the development of SSDS Stage II</li> </ul>

Initiatives	Targets
To start bioremediation and dredging works in the Shing Mun River in order to remove contaminated sediments <i>(CED)</i>	To complete the design in mid-2000 and start work in 2001
Nature Conservation	
To provide professional and technical advice and support on follow-up action, monitoring and auditing programmes related to ecological aspects of Environmental Impact Assessments (Agriculture and Fisheries Department (A&FD))	To form a team in 1999-2000 to check the implementation of ecological mitigation measures and monitoring and auditing programmes
To step up the afforestation programme in country parks	• To plant 500 000 trees in 1999
(A&FD)	• To organise 200 public tree planting activities in 1999
Energy Efficiency and Conservation	
To implement more energy saving measures for existing government buildings (Electrical and Mechanical Services Department)	To start in mid-1999 a two- year pilot scheme to install innovative energy efficient equipment and to assess its performance

Initiatives	Targets
To implement energy saving measures in new government buildings (Government Property Agency/ Architectural Services Department )	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



#### **Review effectiveness**

To ensure that our initiatives do provide expected solutions to environmental needs, and that measures can be adjusted or reassessed as necessary, consistent monitoring and review of programmes is required. This involves the setting of appropriate standards of performance and of targets to be achieved, internal auditing, and obtaining public opinion and views through surveys or structured reviews of policies and programmes.

#### Indicators

Our indicators of progress in this area are -

- the establishment of effective measures of performance
- the time taken to identify any departures from performance targets or policy objectives

Initiatives	Targets
<b>Air</b> To assess the adequacy of existing air quality objectives ( <i>Environmental Protection Department</i> ( <i>EPD</i> ))	<ul> <li>To complete a review of the air quality objectives by end 1998</li> <li>To make appropriate recommendations in 1999</li> </ul>
Waste To review the statutory Waste Disposal Plan (EPD)	To commence the review in late 1998 for completion in 1999

Initiatives	Targets
Water	
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
To review the cumulative impact of coastal developments on the quality of our surrounding waters (EPD)	To develop and apply an updated suite of water quality models for waters around Hong Kong by mid-2000
Environmental Assessment & Planning	
To review the operation of the implementation of the Environmental Impact Assessment Ordinance <i>(EPD)</i>	To complete a review by mid- 1999
Energy Efficiency and Conservation	
To assess the adequacy of the Buildings (Energy Efficiency)	To complete a review of the Overall Thermal Transfer

Buildings (Energy Efficiency) Regulation introduced in 1995

(Buildings Department)

To complete a review of the Overall Thermal Transfer Value requirements in private buildings by mid-1999

#### Initiatives

To assess the effectiveness of voluntary energy efficiency labelling schemes for household appliances

(Electrical and Mechanical Services Department)

#### Targets

To review in 1999 the labelling scheme for refrigerators