

Agriculture, Fisheries and Conservation Department

Environmental Report for 2008

Our Profile

The Agriculture, Fisheries and Conservation Department (AFCD) provides services to the public in connection with agriculture and fisheries, nature conservation and animal, plant and fisheries regulations. We have three programme areas. The main aims of the programme areas are as follows –

- i) Agriculture, Fisheries and Fresh Food Wholesale Markets -
 - ◆ to facilitate agricultural and fisheries production and improve productivity;
- ii) Country and Marine Parks and Nature Conservation -
 - ◆ to conserve flora, fauna and natural habitats; to designate and manage country parks, special areas, marine parks and marine reserves; and to control international trade in endangered species of animals and plants in Hong Kong; and
- iii) Animal, Plant and Fisheries Regulation and Technical Services -
 - ◆ to monitor the welfare of, and control the diseases in, animals and plants through enforcement of relevant legislation; protect public health; protect and regulate fisheries; and provide technical services.

We are responsible for the management and operation of the Hong Kong Wetland Park, Endangered Species Resource Centre, Lion Nature Education Centre, Fisheries Education Centre, Tai Lung Experimental Station, Tai Lung Veterinary Laboratory, 24 Country Parks, 17 Special Areas, four Marine Parks, one Marine Reserve, four Animal Management Centres and three Wholesale Food Markets.

As at March 2008, we had 1 745 civil servants working at our headquarters offices in Cheung Sha Wan Government Offices and over 50 outstations throughout the territory. Our establishment ceiling for 2008-09 was \$437.3 millions.

Our Environmental Policy

Our Environmental Policy is –

- i) to promote the production of fresh food in a sustainable and environmentally responsible way; and
- ii) to conserve and enhance our natural environment.

Our Environmental Objectives

In implementing this policy, we will –

- i) develop and promote environmentally responsible technology in agriculture and fisheries production;
- ii) conserve and manage the natural environment through the identification, designation and management of country and marine parks, special areas and marine reserve;
- iii) conserve local flora, fauna and their natural habitats through law enforcement and provide conservation advice on development proposals and planning studies;
- iv) conserve endangered species through controlling their international trade;
- v) fully comply with environmental legislation and adopt environmentally responsible practices in daily operations; and
- vi) regularly review the efficient use of resources and seek improvement to reduce the environmental impacts, such as reducing energy consumption and air pollutant emission in our operations.

Our Environmental Performance

We have launched various programmes to bring about environmentally responsible practices and sustainable use of natural resources in agriculture and fisheries. Highlights of 2008 are set out below –

- ◆ The "Accredited Vegetable Farm Scheme" continues to promote good horticultural practices and proper use of pesticides. In 2008, the total number of accredited farms in

Hong Kong was 215, covering about 75 hectares of farming area.

- ◆ To promote local organic agriculture, the Organic Farming Support Service provided technical support to 123 local organic farms covering about 47.8 hectares of farming area.
- ◆ The Committee on Sustainable Fisheries was set up in December 2006 to formulate the long term goals and direction for the sustainable development of the fisheries industry and to conserve fisheries resources in Hong Kong waters. The Committee will submit its recommendations to the Food and Health Bureau in the second half of 2009.
- ◆ The government has raised the capital of the Fisheries Development Loan Fund from \$100 million to \$290 million to promote sustainable fisheries development, of which \$250 million is to help fishermen switch to sustainable fisheries or related operations and \$40 million is to help fish farmers to develop sustainable aquaculture businesses.
- ◆ The Department has been vigilantly enforcing against destructive fishing practices, such as fishing with explosives, toxic substances, electricity, dredging and suction devices. During the year, 1 130 patrols were conducted to combat destructive fishing.
- ◆ The Department continues to promote the enhancement of fisheries habitats and resources through deployment of artificial reefs. A total of 1 200 m³ of artificial reefs were deployed in 2008.
- ◆ The Fisheries Education Centre has been set up in the Aberdeen Fisheries Office to promote public awareness of the need and importance for fisheries conservation. During the year, the Centre received 3 900 visitors.
- ◆ The Department continues to implement the voluntary Accredited Fish Farm Scheme to promote good aquaculture

practices and enhance the quality of cultured fish. In 2008, a total of 80 fish farms (23 pond fish farms and 57 marine fish farms) covering some 12% of total area of local fish farms have been registered under the Scheme.

- ◆ Environmentally friendly practices have been promoted among fish farmers, such as the use of pellet feed to replace trash fish. Of the 1 066 mariculture farms, some 203 used pellet feed in 2008.
- ◆ In 2008, the Department commenced to develop a code of conduct and practical guidelines for organic fish farming in Hong Kong.
- ◆ Apart from the Kau Sai Fish Culture Zone, biofilters were deployed in the Sham Wan and Lo Tik Wan fish culture zones with a view to improving the seabed environment.

We have introduced various measures to conserve biodiversity and protect natural habitats. We also designate and manage country parks, special areas, marine parks and marine reserve so as to conserve and enhance our natural environment. The following projects were carried out in 2008 –

- ◆ 900 000 tree seedlings were planted in various country parks to rehabilitate areas damaged by hill fires and soil erosion. Over half of the seedlings planted were native species.
- ◆ Efforts were made to enhance the diversity of flora and fauna in country parks. Seedlings of native species were also planted within plantations of exotic species to enrich their species diversity and ecological value. Ecological enhancement sites were purposely built to attract various wildlife. For instance, artificial wetlands were constructed for attracting aquatic wildlife. Attempts were also made to breed rare fish species at artificial wetlands and the results were encouraging. Self interpretative signs and displays were installed to provide basic information of the wildlife and plants found at these sites.
- ◆ 161 environmental impact assessment applications and studies

on development projects were handled.

- ◆ Conservation and management projects were undertaken in the Mai Po Inner Deep Bay Ramsar Site.
- ◆ Removal of invasive exotic mangrove species was continued in the Inner Deep Bay area.
- ◆ A long-term territory-wide ecological survey is in progress with a view to updating and maintaining a comprehensive ecological database for Hong Kong.
- ◆ An internet-based information and experience sharing platform, the Hong Kong Live Eco-map (www.hkecomap.net), has been launched for public browsing. The internet-based database, the Hong Kong Biodiversity Online (www.hkbiodiversity.net), continued to provide handy basic biological and ecological information of more than 1 000 animal species to the public.
- ◆ Newsletters on biodiversity of Hong Kong have been published.
- ◆ Butterfly Gardens have been established at various Country Parks to attract both target species for conservation purpose and other common species for the public to enjoy butterflies watching.
- ◆ Our Endangered Species Resource Centre continued to serve as the site to promote public awareness on endangered species protection. Over 7 200 visitors visited the Resource Centre during the year.
- ◆ A variety of education and publicity programmes on endangered species protection were organized, including seminars/talks, exhibitions, as well as the Young Ambassador Programme for Endangered Species Protection in 2008.
- ◆ The enforcement momentum to curb illegal trade in endangered species has been maintained. 108 prosecutions in respect of illegal import, export or possession of endangered species were made last year.

- ◆ The Hong Kong Wetland Park (HKWP) was opened to the public on 20 May 2006. The Park attracted over 1.2 million visitors by the end of December 2008.
- ◆ A variety of school and public education programmes on wetland conservation have been carried out. In 2008, 7 256 education activities were organized at the HKWP for about 160 000 students and the public.
- ◆ The “Wetland Park Volunteer Scheme” continued to promote direct involvement of the public in wetland conservation work. More than 1 576 volunteers were registered in 2008 to provide guided interpretation service and support various conservation work in wetlands.
- ◆ HKWP carried out artificial incubation for two clutches of eggs which were laid by green turtle HK2 late in the nesting season. The hatching rate for nest 6 is as high as 99% (140/141). Most of the baby turtles were released back in Sham Wan when the weather was still warm. As nest 7 was hatched in early December when the weather was cooler, the full batch of 22 baby turtles has been kept in the Hong Kong Wetland Park until their release in summer 2009.

To comply with environmental legislation and reduce environmental impacts of our operations, we have adopted various measures to ensure that our operations are environmentally responsible –

- ◆ We have been using manual sectional switches to turn off parts of the lighting and mechanical ventilation systems in areas exposed to sunlight and natural flow of air where practicable.
- ◆ In 2008, we modified 17 lighting panels in our headquarters office at the Cheung Sha Wan Government Offices from the traditional T8 model into the more energy-efficient T5 model. The same illumination level was achieved by using fewer fluorescent tubes. We will arrange to replace other T8 luminaries with T5 luminaries.

- ◆ We have adjusted the condensing water temperature of the cooling system, reduce the air conditioning pumps / machine numbers and shorten the operation hours for air conditioning facilities as far as the normal operation will not be affected.
- ◆ We have established a standing working mechanism with the Electrical and Mechanical Services Department (EMSD) to work out possible energy saving projects in the Department. Colleagues from EMSD will also visit us to host seminars to introduce the latest development in energy saving and green management.
- ◆ We have inactivated / removed non-essential lighting, replaced lamp bulbs with lower watt and energy efficient model and adjusted the lighting hours of specific zones according to the actual operational needs. In 2008, we had removed a total of 22 fluorescent tubes in our headquarters office.
- ◆ In major sites such as our Tai Lung Veterinary Laboratory, we had partitioned the centralized air conditioning areas and shortened the air conditioning hours in non-essential zones such as common areas, offices, etc. Provision of central lighting and air-conditioning in our headquarters office was programmed to shut down at 8:00 p.m. and 6:00 p.m. respectively to attain further energy saving.
- ◆ We have continued to replace dilapidated electric appliances by new model with energy saving label. In 2007, we rolled out a project to identify stand-alone air-conditioners in use for 8 years or above for replacement by newer models with energy saving label. This project was completed by the third quarter of 2008.
- ◆ In 2008, our headquarters office obtained a “Good” class certificate under the Indoor Air Quality Certification Scheme.

Our Electricity, Petroleum and Paper Consumption

The major sources of our air emissions are the use of electricity and vehicle

exhaust. These air emissions include mainly the Sulphur Dioxide (SO₂), Nitrogen Oxides (NO_x) and Respirable Suspended Particulates (RSP).

i) Electricity^(Note)

Our electricity consumption in 2008 was 18 587 856 kWh, which led to the emission of 35 502.8 kg SO₂, 21 561.9 kg NO_x and 1 115.3 kg RSP. Compared with the electricity consumption in 2007, a saving of 4.5% was achieved – a reduction in the emission of SO₂ by 1 669 kg, NO_x by 1 013.6 kg and RSP by 52.4 kg.

ii) Petroleum

The overall kilometers (km) traveled by our departmental vehicles in 2008 was 2 914 169 km. The average emission of NO_x of our passenger cars, light goods vehicles and heavy goods vehicles were 592.2 kg, 3 145.8 kg and 2 378.5 kg respectively. For RSP, a total of 763.9 kg was emitted by our light goods vehicles and heavy goods vehicles, while the emission of our passenger cars was negligible.

iii) Paper

In 2008, we consumed 10 528 reams of paper in our daily operations. Compared with the 10 794 reams in 2007, we had reduced our paper consumption by 266 reams, i.e. saving of 2.5%, through concerted efforts of every staff member of the Department.

Notwithstanding the savings achieved in 2008, we will continue to make our best endeavours to ensure the most cost-effective use of resources in the years ahead.

Our Green Housekeeping System

We set up our green management system in 1994. A Green Manager is appointed to coordinate the green housekeeping efforts in the Department. Together with representatives of our five functional Branches, the Green Manager is a member of the Green Management Committee, which is chaired by a Directorate Officer to steer the development, implementation and

^(Note) Electricity consumption of our offices accommodated at joint-user buildings under the management of the Government Property Agency are not included.

monitoring of green office practices and to promote environmental awareness among staff.

To assist the Green Manager in the daily monitoring and implementation of agreed green policy and practices, a group of Assistant Green Managers, who are usually officers in charge of outstations, have also been appointed. They are required to monitor the green housekeeping performance of their premises and report monthly.

To further strengthen the system and explore improvement opportunities for ensuring the green targets are achieved, Environmental Audit Teams have been formed since 2000. Led by the Green Management Committee members, the Audit Teams are tasked to carry out green audits in various office premises. Committee members, as Leaders of the Audit Teams, are required to report their audit results at regular Committee meetings.

Cultivating a Green Culture

We are committed to cultivating a green culture in our workplace. Green tips and relevant information are uploaded to the departmental intranet for access by all staff members. To increase the awareness and participation of staff in green management issues, colleagues are also encouraged to attend training and workshops on green management and conservation.

The principles of “reduce, reuse and recycle” are practised in our offices to economize the use of resources and reduce wastage and pollution. Examples are –

- i) Economizing the Use of Paper
 - ◆ Use both sides of paper.
 - ◆ Cut down on photocopying.
 - ◆ Default double-sided printing for all network printers at headquarters office.
 - ◆ Discard use of fax leader pages.
 - ◆ Use electronic mail and soft copies within and outside the Department for exchange of documents.
 - ◆ Reduce the number of copies for distribution/circulation, if hard copy is absolutely needed.
 - ◆ Reduce the use of envelopes and re-use envelopes.

- ii) Energy conservation
- ◆ Check vehicles regularly to ensure that they are in good conditions to enhance fuel efficiency.
 - ◆ Control fuel consumption and reduce pollutants emission by encouraging staff to share pool car for duty visits and site visits.
 - ◆ Use public transport whenever possible, especially when the Air Pollution Index is high.
 - ◆ Switch off electrical appliances when not in use.
 - ◆ Individual light zones are controlled by sectional light switches.
 - ◆ Lower the illumination level of the offices where appropriate.
 - ◆ Shorten the central lighting hours.
 - ◆ Shade sun-exposed windows and keep exterior doors/windows closed as much as possible.
 - ◆ Maintain room temperature of all air-conditioned office premises at 25.5°C during summer months.
 - ◆ Use manual sectional switches to turn off parts of the lighting and mechanical ventilation systems in those areas of the wholesale food markets exposed to sunlight and natural flow of air as appropriate.
 - ◆ Replace dilapidated electric appliances by new electric appliances with saving labels.
- iii) Waste minimization and recycling
- ◆ Use refillable ball pens.
 - ◆ Separate collection of used and waste paper.
 - ◆ Encourage staff to use their own cups instead of paper cups.
 - ◆ Minimize use of products which are not environmentally friendly such as correction fluid.
 - ◆ Re-use loose minute jackets.
 - ◆ Proactively inform other departments/bureaux the minimum number of hard copies of reports, newsletters, circulars, publications, etc. required and request soft copies whenever feasible.
 - ◆ Introduce recycle bins in offices to encourage separation of wastes (paper, plastic bottles, aluminum cans, CDs,

stationary and rechargeable batteries) for recycling since 2002.

The Way Forward

To further enhance our green performance, we will continue to explore opportunities to apply saving measures in our offices. We will continue to encourage our staff to attend experience sharing sessions to learn more about the latest development in efficient use of resources and air-emission reduction.

Since the three wholesale markets accounted for over 50% of our total electricity consumption during the year, we will continue to explore all possible energy saving measures in the markets. One of our focuses will be the possible improvement in motor efficiency given the fact that electric motors are the major prime movers of various mechanical systems such as HVAC system, water pumping system, sewer treatment plant system, etc in our markets. Since May 2007, ten high efficiency motors with auto frequency control have been installed in the Western Wholesale Food Market to replace the existing motors. Significant electricity saving was recorded. We plan to replace the remaining motors in the Western Wholesale Food Market and the Cheung Sha Wan Wholesale Food Market, subject to the replacement schedule of the EMSD and availability of funding. We anticipate substantial savings when the project is completed. Furthermore, we will constantly review ways of energy saving in coping with the ever changing environment and new development in technology with a view to enhance elimination of wastage and efficient use of resources. We will also promote the commitment of individual staff members and market traders in taking part in the saving drill.

In order to enhance colleagues' awareness of resources efficiency, we will continue holding commendation scheme to commend staff's contribution and achievement in resources saving and waste reduction by setting good examples and fostering good habits in the workplace.

Comment and Suggestion

We welcome your comment and suggestion to further improve our green performance. You may send us your views through any of the following channels –

Post : 5/F, Cheung Sha Wan Government Offices,
303 Cheung Sha Wan Road,
Kowloon.

Fax : 2311 3731

Telephone : 2708 8885
(24-hour Interactive Voice Response System)

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Email : mailbox@afcd.gov.hk

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