

# **Agriculture, Fisheries and Conservation Department**

## **Environmental Report for 2009**

### **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 promote its sustainable development;
- ii) Country and Marine Parks and Nature Conservation –
  - ◆ to conserve flora, fauna and natural habitats; designate and manage country parks, special areas, marine parks and marine reserves; and 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 2009, we had 1 743 civil servants working at our headquarters offices in Cheung Sha Wan Government Offices and over 50 outstations throughout the territory. Our establishment ceiling for 2009-10 was \$474.1 million.

## **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 2009 are set out below –

- ◆ The "Accredited Vegetable Farm Scheme" continues to promote good horticultural practices and proper use of pesticides. In 2009, the total number of accredited farms in

Hong Kong was 235, covering about 79 hectares of farming area.

- ◆ To promote local organic agriculture, the Organic Farming Support Service provided technical support to 135 local organic farms covering about 58.2 hectares of farming area.
- ◆ The Committee on Sustainable Fisheries set up 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 will submit its final report to the Food and Health Bureau in the first half of 2010.
- ◆ 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, 1 306 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 6 706 m<sup>3</sup> of artificial reefs were deployed in 2009.
- ◆ 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 3 020 visitors.
- ◆ The Department continues to implement the voluntary Accredited Fish Farm Scheme to enhance the quality of cultured fish. In 2009, a total of 88 fish farms (27 pond fish farms and 61 marine fish farms) covering some 17% of total area of local fish farms have been registered under the Scheme.
- ◆ Environmentally friendly good aquaculture practices have been promoted among fish farmers, such as proper disposal of fish carcasses, maintaining appropriate stocking density and the use of pellet feed to replace trash fish. Some 282 fish farms (222

mariculture farms and 60 pond fish farms) were visited in 2009 to promote good aquaculture practices.

- ◆ In 2009, the Department has developed a code of practice for organic fish farming in Hong Kong. Practical guidelines are in preparation to facilitate interested fish farmers to engage in organic aquaculture.

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 2009 –

- ◆ Over 700 000 seedlings were planted in the country parks to enhance the landscape and rehabilitate the areas damaged by hill fires and soil erosion. Some 65% of the seedlings planted were native species which provided more suitable habitats for local fauna and wildlife.
- ◆ As one of our on-going efforts to enhance the diversity of flora and fauna in the country parks, we introduced the Country Park Plantation Enrichment Project in 2009. Under the Project, exotic plantation species in particular the aged and weak ones were removed to encourage the growth of local plants. Native species, where appropriate, would be planted to speed up the enrichment process. In 2009, 21 plantations in different country parks covering some 67 000 m<sup>2</sup> were identified for the Project.
- ◆ 165 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.

- ◆ The internet-based information and experience sharing platform, the Hong Kong Live Eco-map ([www.hkecomap.net](http://www.hkecomap.net)), has been updated regularly for public browsing. The internet-based database, the Hong Kong Biodiversity Online ([www.hkbiodiversity.net](http://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.
- ◆ Our Endangered Species Resource Centre continued to promote public awareness on endangered species protection. Over 6 200 visitors visited the Resource Centre during the year.
- ◆ A variety of education and publicity programmes were organized in 2009, including seminars/talks, exhibitions and the 4-Panel Comic Drawing Competition on Endangered Species Protection.
- ◆ The enforcement momentum to curb illegal trade in endangered species has been maintained. 121 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 2.5 million visitors by the end of December 2009.
- ◆ A variety of school and public education programmes on wetland conservation have been carried out. In 2009, over 7 950 education activities were organized at the HKWP for about 231 700 students and members of the public.
- ◆ The “Wetland Park Volunteer Scheme” continued to promote direct involvement of the public in wetland conservation work. More than 1 900 volunteers were registered in 2009 to provide guided interpretation service and support various conservation

works in wetlands. In 2009, HKWP volunteers served over 6 500 man-days in the Park.

- ◆ HKWP carried out artificial incubation for two clutches of eggs which were laid by green turtle HK2 late in the nesting season of 2008. As nest 7 was hatched in early December 2008 when the weather was cooler, the full batch of 22 baby turtles were kept in HKWP until their release in three batches in summer and early autumn in 2009. Besides, green turtles received from a rescue in October 2009 were kept in HKWP for medical examination and treatment before release in November 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 2009, we modified all the lighting panels on 7<sup>th</sup> to 9<sup>th</sup> floors of 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, reduced the air conditioning pumps / machine numbers and shortened 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 2009, we had taken stock of the number of tungsten filament lamps used at outstations and arranged replacement of these lamps.

- ◆ 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 2009, 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 use of electricity and vehicles. These air emissions include mainly the Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>x</sub>) and Respirable Suspended Particulates (RSP).

### i) Electricity<sup>(Note)</sup>

Our electricity consumption in 2009 was 19 368 035 kWh, which led to the emission of 36 993 kg SO<sub>2</sub>, 22 467 kg NO<sub>x</sub> and 1 162 kg RSP. Compared with the electricity consumption in 2008, an increase of 3.3% was resulted – an addition in the emission of SO<sub>2</sub> by 1 195 kg, NO<sub>x</sub> by 726 kg and RSP by 38 kg. The increase was mainly due to the opening of a new laboratory building in the Tai Lung Veterinary Laboratory in July 2009.

### ii) Petroleum

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

The overall kilometers (km) traveled by our departmental vehicles in 2009 was 2 984 339 km (as compared to 2 914 169 km in 2008). The average emission of NO<sub>x</sub> of our passenger cars, light goods vehicles and heavy goods vehicles were 621 kg (as compare to 592.2 kg in 2008), 3 205 kg (as compared to 3 145.8 kg in 2008) and 2 389 kg (as compared to 2 378.5 kg in 2008) respectively. For RSP, a total of 776 kg (as compared to 763.9 kg in 2008) was emitted by our light goods vehicles and heavy goods vehicles, while the emission of our passenger cars was negligible.

iii) Paper

In 2009, we consumed 9 817 reams of paper in our daily operations. Compared with the 10 528 reams in 2008, we had reduced our paper consumption by 711 reams, i.e. saving of 6.8%, through concerted efforts of every staff member of the Department.

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 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.
  - ◆ Proactive participation in the Government’s electric vehicle trial test programme.
  - ◆ 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, high efficiency motors with auto frequency control have been installed in the Western Wholesale Food Market (WWFM) to replace the existing motors. Significant electricity saving was recorded. We plan to replace the remaining motors in the Cheung Sha Wan Wholesale Food Market (CSWWFM), subject to the replacement schedule of the EMSD and availability of funding. In July 2009, part of the 250W high-bay lights and floodlights in both CSWWFM and WWFM have been replaced by 120W induction lamps (total 400 nos.). We anticipate substantial savings will be recorded and will arrange replacement of the remaining lights in coming year. 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 enhancing 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](mailto:mailbox@afcd.gov.hk)

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