

Agriculture, Fisheries and Conservation Department

Environmental Report for 2010

Our Profile

The Agriculture, Fisheries and Conservation Department (AFCD) provides services to the public in three programme areas with the following aims –

- 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 2010, we had 1 795 civil servants working at our headquarters offices in Cheung Sha Wan Government Offices and over 50 outstations throughout the territory. The departmental expenditure for 2010 – 11 was amounted to \$891.12 million.

Our Environmental Policy

Our environmental policy is –

- i) to promote the local 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 environmental 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 provision of conservation advice on development proposals and planning studies;
- iv) conserve endangered species through controlling 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 any adverse environmental impacts, such as reducing energy consumption and air pollutant emission in our operations.

Our Environmental Performance

We have launched various programmes to foster environmentally responsible practices and sustainable use of natural resources in agriculture and fisheries. Highlights of 2010 are set out below –

- ◆ The "Accredited Vegetable Farm Scheme" continues to promote good horticultural practices and proper use of pesticides. In 2010, the total number of accredited farms in Hong Kong was 251, covering some 82 hectares of farming area.

- ◆ To promote local organic agriculture, the Organic Farming Support Service provided technical support to 152 local organic farms covering about 61 hectares of farming area. Organic farming helps to achieve a natural balance with the environment and produce crops in an environmentally friendly and sustainable manner.
- ◆ The Committee on Sustainable Fisheries which was 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 submitted its final report to the Food and Health Bureau in mid 2010. The Chief Executive has announced in his Policy Address 2010 – 11 the implementation of a basket of management measures including banning trawling in Hong Kong waters to protect the marine resources and ecology.
- ◆ 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, 1 466 patrols were conducted to combat destructive fishing activities.
- ◆ The Department continues to promote the enhancement of fisheries habitats and resources through deployment of artificial reefs. The accumulated volume of artificial reefs deployed in Hong Kong is over 170 000 m³.
- ◆ 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 3 082 visitors.
- ◆ The Department continues to implement the voluntary Accredited Fish Farm Scheme to enhance the quality of cultured fish. In 2010, a total of 97 fish farms (30 freshwater fish farms and 67 marine fish farms) covering some 18.8% of total area of local fish farms have been registered under the

- ◆ Environmentally friendly 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 287 fish farms (235 mariculture farms and 52 pond fish farms) were visited in 2010 to promote good aquaculture practices.
- ◆ The Organic Fish Farming Standard which serves as general guideline for organic fish farmers was endorsed in October 2010. Moreover, two collaborative culture trials were conducted in 2010 to explore the feasibility of practising organic fish farming in Hong Kong.

We have introduced 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 2010 –

- ◆ 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 66% 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 since 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 2010, 18 plantations in different country parks covering some 57 000 m² were identified for the Project.
- ◆ A total of 166 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), has been updated regularly for public browsing. The internet-based database, the Hong Kong Biodiversity Online (www.hkbiodiversity.net), continued to provide handy biological and ecological information of more than 1 300 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 7 000 visitors visited the Resource Centre during the year.
- ◆ A variety of education and publicity programmes were organized in 2010, including seminars/talks, exhibitions and the Wallpaper Design Competition on Endangered Species Protection.
- ◆ Posters were distributed and seminars/talks were organized to introduce the Genetically Modified Organisms (Control of Release) Ordinance, Cap. 607, which will commence operation in 2011.
- ◆ The enforcement momentum to curb illegal trade in endangered species has been maintained. 116 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 2.9 million visitors by the end of December 2010.

- ◆ An extensive school and public education programme on wetland conservation has been carried out. In 2010, over 8 000 educational activities were organized at the HKWP for about 270 000 students and members of the public.
- ◆ The “Wetland Park Volunteer Scheme” continued to promote direct public involvement in wetland conservation work. More than 1 400 volunteers were registered in 2010 to provide guided interpretation service and support various conservation works in wetlands. In 2010, HKWP volunteers served over 6 500 man-days in the Park.
- ◆ HKWP implemented new energy saving measures. Timer switches were installed in most life support systems for live exhibit display tanks and back stage rearing tanks for generic live exhibit lighting, UV lighting, and heating systems.

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 2010, we have modified some lighting panels on 5th to 6th 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 without affecting the normal operation.

- ◆ We have established a standing working mechanism with the Electrical and Mechanical Services Department (EMSD) to explore 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 light bulbs with lower watt and energy efficient model and adjusted the lighting hours of specific zones according to the actual operational needs. In 2010, we had taken stock of the number of tungsten filament lamps used at outstations and arranged replacement of these lamps with more energy-efficient lighting installations after exhausting the existing stock.
- ◆ 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 2010, our headquarters office, the Hong Kong Wetland Park, Cheung Sha Wan Wholesale Food Market and Western Wholesale Food Market 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 due to use of electricity and vehicles. 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 2010 was 19 267 960 kWh, which led to the emission of 36 802 kg SO₂, 22 351 kg NO_x and 1 156 kg RSP. Compared with the electricity consumption in 2009, there was a decrease of 0.5% – a reduction in the emission of SO₂ by 191 kg, NO_x by 116 kg and RSP by 6 kg.

ii) Petroleum

The overall kilometers (km) traveled by our departmental vehicles in 2010 was 2 869 890 km (as compared to 2 984 339 km in 2009). The average emission of NO_x of our passenger cars, light goods vehicles and heavy goods vehicles were 582 kg (as compare to 621 kg in 2009), 3 120 kg (as compared to 3 205 kg in 2009) and 2 237 kg (as compared to 2 389 kg in 2009) respectively. For RSP, a total of 749 kg (as compared to 776 kg in 2009) was emitted by our light goods vehicles and heavy goods vehicles, while the emission of our passenger cars was negligible.

iii) Paper

In 2010, we consumed 9 974 reams of paper in our daily operations. Compared with the 9 817 reams in 2009, there was an increase of 1.6%, i.e. addition of 157 reams, due to increase of operational activities.

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 a departmental green management system in 1994. A Green Manager is appointed to coordinate the green housekeeping efforts in the Department. In addition, the Green Management Committee, which is chaired by a Directorate Officer with representatives of our five functional Branches, will steer the development, implementation and monitoring of green office practices and to promote environmental awareness among staff.

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

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. Staff participation in the annual Staff Suggestion Scheme and Green Saving Commendation Scheme have been encouraging in 2010. There were useful entries on green saving initiatives.

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 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

- ◆ 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 green saving initiatives for our offices. We will continue to encourage our staff to attend experience sharing sessions to learn more about the latest trend and technological advances 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. Since May 2010, some luminaries have been replaced by induction lamps (a more energy-saving lamps) in Cheung Sha Wan Wholesale Food Market (CSWWFM) and Western Wholesale Food Market (WWFM), and resulted in an electricity saving of 50 000 kWh. We anticipate substantial savings will be recorded when all luminaries are replaced by the end of 2011. In June 2010, we installed humidity and temperature sensors and photosensors for enhancing the control of market ventilation fans system and lighting system respectively at CSWWFM. These measures achieved an electricity saving of 120 000 kWh since then while the operation needs were not compromised. We will regularly review and take on board energy saving measures with due regard to the ever changing environment and new development in technology so as to further eliminate wastage and enhance more efficient use of resources. We will also promote the commitment of individual staff members and market traders in taking part in the saving drive.

To enhance colleagues' awareness of resources efficiency, we will continue holding commendation schemes to commend staff's contribution and achievement in resources saving, waste reduction, as well as setting good examples to foster 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 –

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