

# **Agriculture, Fisheries and Conservation Department**

## **Environmental Report for 2011**

### **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, geoparks, 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 Global Geopark of China, Hong Kong Wetland Park, Endangered Species Resource Centre, Fisheries Education Centre, Tai Lung Experimental Station, Tai Lung Veterinary Laboratory, 24 Country Parks, 22 Special Areas, eight Country Park Visitor Centres/ Education Centres, four Marine Parks, one Marine Reserve, four Animal Management Centres and three Wholesale Food Markets.

As at 31 March 2011, we had 1 808 civil servants working at our headquarters offices in Cheung Sha Wan Government Offices and over 50 outstations throughout the territory. The departmental expenditure for 2011-12 was amounted to \$951.81 million.

## **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.

## **Environmental Objectives**

In implementing this environmental policy, we will –

- i) develop and promote environmentally responsible technology in agricultural and fisheries production;
- ii) conserve and manage the natural environment through identification, designation and management of country parks, special areas, geoparks, marine parks and marine reserves;
- 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 use of resources and seek improvement to reduce any adverse environmental impacts, such as reducing energy consumption and air pollutant emission in our operations.

## **Environmental Performance**

We have launched various programmes to foster environmentally responsible practices and sustainable use of natural resources in agriculture and fisheries. Highlights of 2011 are set out below –

- ◆ The Accredited Vegetable Farm Scheme continued to promote good horticultural practices and proper use of pesticides. In 2011, the total number of accredited farms in Hong Kong was 259, covering some 82 hectares of farming area.
- ◆ To promote local organic agriculture, the Organic Farming Support Service provided technical support to 182 local organic farms covering about 69 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.
- ◆ Trawling activities in Hong Kong waters will be banned from 31 December 2012. The Fisheries Protection (Amendment) Bill 2011 was introduced into the Legislative Council in October 2011 to provide legal backup for implementation of a suite of fisheries management measures for regulating fishing activities.
- ◆ 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, 1 475 patrols were conducted to combat destructive fishing activities.
- ◆ The Department continued to enhance fisheries habitats and resources through deployment of artificial reefs. The accumulated volume of artificial reefs established in Hong Kong is over 170 000 m<sup>3</sup>.
- ◆ The Fisheries Education Centre has been set up in the Aberdeen Fisheries Office to promote public awareness of the need and importance of fisheries conservation. During the year, the Centre received 3 677 visitors.
- ◆ The Department continued to implement the voluntary Accredited Fish Farm Scheme to enhance the quality of cultured fish. In 2011, a total of 105 fish farms (36 freshwater

fish farms and 69 marine fish farms) covering some 21% of total area of local fish farms have been registered under the Scheme.

- ◆ 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 301 fish farms (256 mariculture farms and 45 pond fish farms) were visited in 2011 to promote good aquaculture practices.
- ◆ To promote organic fish farming, the Department has provided technical support to fish farmers in converting their fish farms into organic fish farms. Two organic fish farms received the accreditation from the Hong Kong Organic Resources Centre in 2011.

We have introduced measures to conserve biodiversity and protect natural habitats. We also designate and manage country parks, special areas, geoparks, marine parks and marine reserves so as to conserve and enhance our natural environment. The following projects and activities were carried out in 2011 –

- ◆ Over 740 000 seedlings were planted in the country parks to enhance the landscape and rehabilitate the areas damaged by hill fires and soil erosion. Some 70% of the seedlings planted were native species providing more suitable habitats for local fauna and wildlife.
- ◆ As one of our on-going efforts to enhance diversity of flora and fauna in the country parks, we have introduced the Country Park Plantation Enrichment Project since 2009. Under the Project, exotic plantation species, in particular the aged and weak ones, were removed for the growth of local plants. Native species, where appropriate, would be planted to speed up the enrichment process. In 2011, 14 plantation sites in different country parks covering some 66 000 m<sup>2</sup> were identified for the Project.

- ◆ The Department has designated five new Special Areas at the Double Haven, Ninepin Group, Ung Kong Group, Sharp Island and High Island, covering a total of 234.66 hectares, on 1 January 2011 because of their high geological interest. This echoes the establishment of the Hong Kong Global Geopark of China at the northeastern New Territories sedimentary rock region and the Sai Kung volcanic rock region in September 2011.
- ◆ A variety of education and publicity programmes were organized in 2011, including nature conservation education programmes for schools, guided tours, seminars, talks, exhibitions and competitions. These programmes have attracted some 390 000 participants.
- ◆ The Country Parks Volunteer Scheme was launched in March 2011 to foster direct participation of the general public in nature conservation work in country parks and special areas. In 2011, more than 200 volunteers were trained to provide services and support in conservation programmes. In 2011, Country Parks volunteers served over 23 000 hours.
- ◆ Information on country parks and special areas was continued to be provided to visitors to promote public awareness of conservation of natural environment at eight Country Park Visitor Centres/Education Centres, namely Lions Nature Education Centre, Ngong Ping Nature Centre, Aberdeen Tree Centre and the Country Park Visitor Centres at Shing Mun, Clear Water Bay, Tai Mo Shan, Pak Tam Chung and Plover Cove. In 2011, these Centres recorded over 1.2 million visitors.
- ◆ A total of 167 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 was continued 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. Another internet-based database, the Hong Kong Biodiversity Online ([www.hkbiodiversity.net](http://www.hkbiodiversity.net)), continued to provide the public with handy biological and ecological information of more than 1 300 animal species.
- ◆ Newsletters on biodiversity of Hong Kong have been published.
- ◆ The Department continued to promote public awareness on endangered species protection through the Endangered Species Resource Centre. In 2011, there were over 6 700 visitors to the Centre.
- ◆ A wide variety of education and publicity programmes were organized in 2011, including seminars, talks, exhibitions and the Photo Story Competition on Endangered Species Protection.
- ◆ The Genetically Modified Organisms (Control of Release) Ordinance, Cap. 607 came into operation on 1 March 2011 to give effect to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity and to control the release of genetically modified organisms (GMOs) into the environment and their imports and exports. The Ordinance aims to protect local biological diversity from possible adverse impacts arising from the release of GMOs.
- ◆ Pamphlets and posters were distributed, and seminars were organized to arouse public awareness of the regulatory framework for GMOs.
- ◆ The enforcement momentum to curb illegal trade in endangered

species has been maintained. In 2011, there were 117 prosecutions in respect of illegal imports, exports or possession of endangered species.

- ◆ The Hong Kong Wetland Park (HKWP) was opened to the public on 20 May 2006. It has attracted over 3.4 million visitors by the end of December 2011.
- ◆ An extensive school and public education programme on wetland conservation has been carried out. In 2011, over 8 500 educational activities were organized at the HKWP for some 207 000 students and members of the public.
- ◆ Through the Wetland Park Volunteer Scheme, the Department continued to promote direct public involvement in wetland conservation. More than 1 600 volunteers were registered under the scheme in 2011 to provide guided interpretation service and support conservation works in wetlands. In 2011, volunteers served over 25 000 hours in the Park.
- ◆ HKWP has continued to implement energy saving measures. For example, timer switches have been 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 on our operations, we have adopted the following environmentally responsible measures –

- ◆ 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.
- ◆ Following the replacement of some 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 to the more energy-efficient T5 model in 2010. Electrical and Mechanical Services Department (EMSD) has started to replace the

remaining T8 model lighting panels since November 2011.

- ◆ We have adjusted the condensing water temperature of the cooling system, reduced the air conditioning pumps / machine numbers and shortened the operating hours of air conditioning facilities without affecting our normal operation.
- ◆ We have established a standing working mechanism with the EMSD to explore possible energy saving projects in the Department. EMSD will also conduct energy audits at some premises such as Cheung Sha Wan Wholesale Food Market, New Territories North Animal Management Centre and Tai Lung Veterinary Laboratory.
- ◆ We have deactivated / removed non-essential lighting, replaced light bulbs with lower wattage/ energy efficient models and adjusted the lighting hours of specific zones to suit our operational needs. Tungsten filament lamps used at the outstations for general lighting purposes were phased out in August 2011.
- ◆ Since mid-2010, we have installed humidity and temperature sensors and photosensors for more effective control of market ventilation fans system and lighting system respectively at Cheung Sha Wan Wholesale Food Market and Western Wholesale Food Market. The replacement work of lighting installation for both markets, which started in mid-2010, was completed in August 2011. With these measures, electricity saving of 3% in 2010 and 8% in 2011 as compared to the calendar year of 2009 were achieved.
- ◆ In premises such as 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. Air-conditioning in our headquarters office and central lighting were programmed to shut down at 6:30 p.m. and 8:00 p.m. respectively to sustain energy saving.
- ◆ We have continued to replace dilapidated electric appliances by



new models with energy saving label.

- ◆ In 2011, 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.
- ◆ We have encouraged our colleagues to adopt the green specifications promulgated by the Environmental Protection Department upon procurement of items. Also, we have incorporated environmental protection guidelines into all cleansing contracts.

### **Electricity, Petroleum and Paper Consumption**

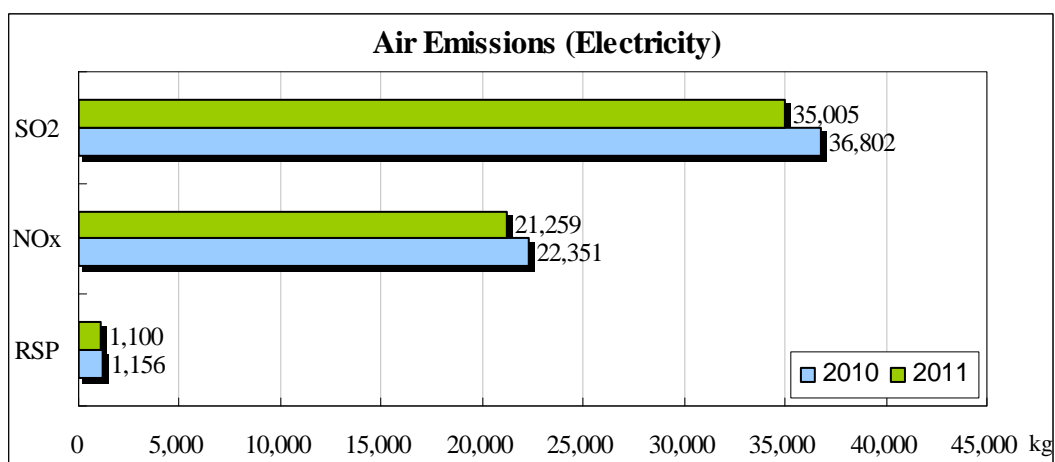
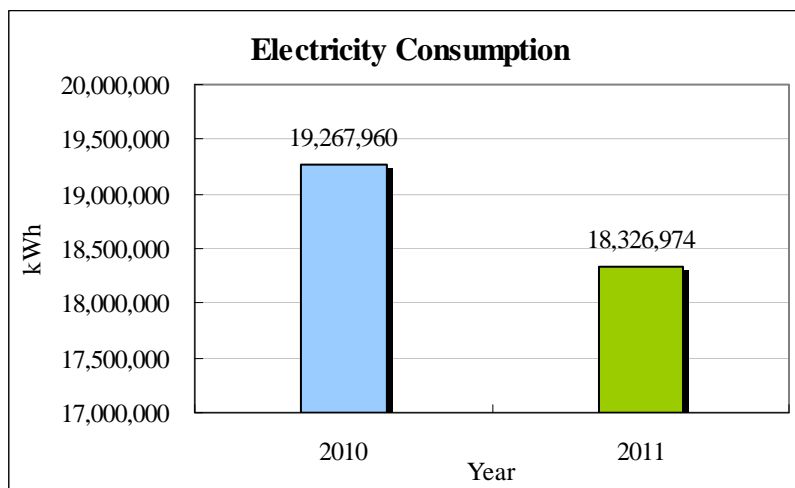
The major sources of our air emissions are due to use of electricity and vehicles. These air emissions mainly include Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>x</sub>) and Respirable Suspended Particulates (RSP).

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

Our electricity consumption in 2011 was 18 326 974 kilowatt hour (kWh), leading to emission of 35 005 kilograms (kg) SO<sub>2</sub>, 21 259 kg NO<sub>x</sub> and 1 100 kg RSP. Compared with 19 267 960 kWh in 2010, there was a decrease of 4.9%, resulting in a reduction in emission of SO<sub>2</sub> by 1 797 kg; NO<sub>x</sub> by 1 092 kg; and RSP by 56 kg.

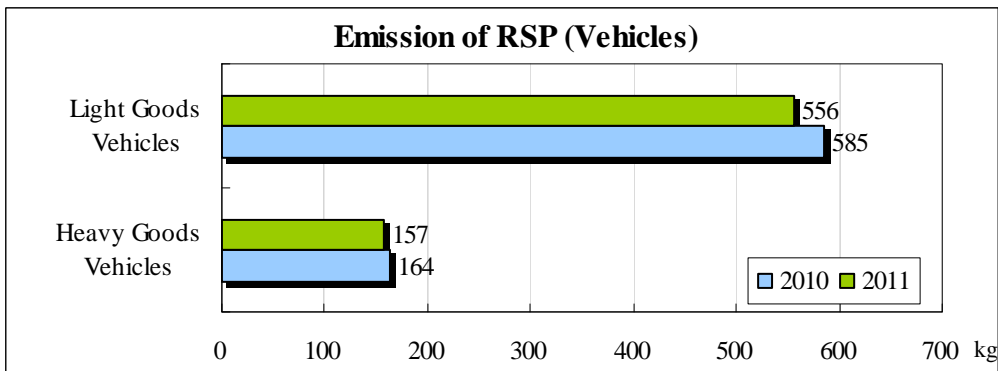
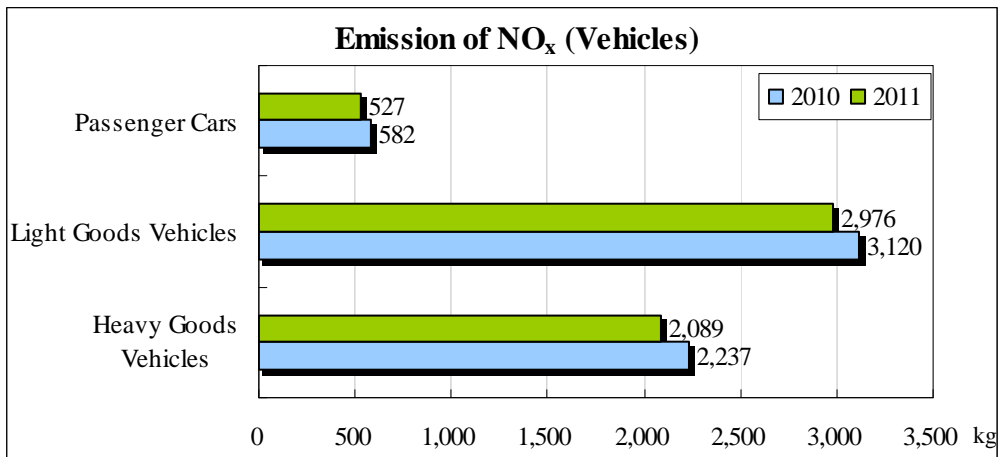
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<sup>(Note)</sup> Electricity consumption of our offices accommodated at joint-user buildings under the management of the Government Property Agency is not included.



ii) **Petroleum**

The overall kilometers (km) traveled by our departmental vehicles in 2011 was 2 700 643 km (as compared to 2 869 890 km in 2010). The average emission of NO<sub>x</sub> of our passenger cars, light goods vehicles and heavy goods vehicles were 527 kg (as compared to 582 kg in 2010), 2 976 kg (as compared to 3 120 kg in 2010) and 2 089 kg (as compared to 2 237 kg in 2010) respectively. For RSP, 556 kg (as compared to 585 kg in 2010) and 157 kg (as compared to 164 kg in 2010) were emitted by our light goods vehicles and heavy goods vehicles respectively, while the emission of our passenger cars was negligible.



iii) Paper

In 2011, we consumed 10 977 reams of paper in our daily operations. Compared with the 9 974 reams in 2010, there was an increase of 10%, i.e. addition of 1 003 reams, due to increase of operational activities. For example, there was an increase in the number of volunteers conducting guided tours at the Geopark and organizing educational programmes at schools in 2011.

We will continue to make our best endeavours to ensure the most cost-effective use of resources in the years ahead.

**Green Housekeeping System**

We have set up a departmental green management system since 1994. A Green Manager has been appointed to coordinate the green housekeeping efforts in the Department. In addition, the Green Management Committee, chaired by a Directorate Officer, with representatives from our five operation

Branches, will steer the development, implementation and monitoring of green office practices and promote environmental awareness among all staff.

To assist the Green Manager in the 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 monitor the green housekeeping performance of premises under their purview and report on a monthly basis.

To further strengthen the system and explore areas for improvement to ensure 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 our office premises. Committee members, as Leaders of the Audit Teams, are required to report their audit results at regular Committee meetings.

### **Nurturing a Green Culture**

We are committed to nurturing a green culture in our workplace. Green tips and relevant information are uploaded to the departmental intranet for access by all staff. To increase awareness and participation of staff in green management issues, colleagues are also encouraged to attend training and workshops on green management and energy conservation. Staff participation in the annual Staff Suggestion Scheme was encouraging in 2011. There were two useful entries on green saving initiatives.

The 3-R principle of “Reduce, Reuse and Recycle” is practised in our offices to make effective use of resources and reduce wastage and pollution as far as possible. Examples are –

- i) Economizing the use of paper
  - ◆ Use both sides of paper
  - ◆ Use recycled 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
- ◆ Strict compliance with the requirement of switching off idling motor vehicle engines
- ◆ 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 energy saving labels

iii) Minimizing waste 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 bureaux/departments 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

### **Way Forward**

We are committed to enhance our green performance. We will continue to explore green saving initiatives for our offices and 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 in reduction of air-emission.

The three wholesale markets have accounted for some 50% of our total electricity consumption during the year. Given the significant reduction in electricity consumption in the markets after adopting power-saving measures in the past few years, we will continue to explore and adopt further energy saving measures for the markets. 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. Continuous efforts will be made to secure the support of our staff and market traders in taking part in the saving drive.

To enhance colleagues' awareness of resources efficiency, we will continue to implement Staff Suggestion Scheme 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.

### **Comments and Suggestions**

We welcome your comments and suggestions, which help us 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)

: 1823

Email : [mailbox@afcd.gov.hk](mailto:mailbox@afcd.gov.hk)

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