

漁農自然部理署年期 Agriculture, Fisheries and Conservation Department Report 2003-2009

# **Director's Message**

2008-09 was yet another eventful and fruitful one for the Agriculture, Fisheries and Conservation Department (AFCD).

We at the AFCD serve as the veterinary and animal guarantine authority of the Hong Kong Special Administrative Region and are proud to have played a part in contributing to the success of the 2008 Olympic and Paralympic Equestrian Events. Our staff worked diligently to prevent any outbreak of infectious diseases among competing horses while efficiently enforcing animal welfare regulations during the Games. The 2008 Olympic equestrian events were an unparalleled success. Among the many contributing factors, an unquestionable one was the fact that all competing horses remained free from infectious disease



throughout their stay in Hong Kong and enjoyed a safe onward journey thereafter.



Another major challenge we met during the year was the threat of avian influenza following the outbreak of H5N1 in a chicken farm in Yuen Long in December 2008. Control and monitoring measures were stepped up through the increase of farm inspections and the sampling size for avian influenza tests. The Department took on board the recommendations of the Investigation Group on Epidemiological Study for the incident and adopted various measures to facilitate the implementation of enhanced biosecurity measures on local farms. To protect public health and further reduce the risk posed by

avian influenza, the Government made legislative changes to ban overnight stocking of live poultry at retail outlets and offered a buyout scheme to farmers, wholesalers, retailers and transporters in the live poultry trade.

With respect to agriculture, the Department provided an organic farming support service to 128 farms located on about 50 hectares of land. The AFCD has also promoted the use of greenhouse technology for intensive highvalue crop production. During the year, three improved varieties — little cucumber, leaf beet and dark leaf Chinese white cabbage were introduced to farmers for cultivation in Hong Kong.

On the development of local fish hatcheries, the Department conducted a trial scheme in Ta Kwu Ling during the year. A training



workshop was also organised there to help local farmers acquire the technical knowledge and share among themselves their practical experience in this connection.

About 40% of Hong Kong's total land area has been designated as country parks and special areas for nature conservation, outdoor recreation and nature education. With the opening of the Lantau North (Extension) Country Park in 2008, Hong Kong now has 24

country parks and 17 special areas, providing extensive hiking trails, barbecue, picnic and camp sites, and visitor centres which attracted over 12 million visitors during the year.



Green Turtle is the only species of sea turtle that breeds regularly in Hong Kong. Green Turtle "Hong Kong 2", firstly recorded in 2003, returned to Sham Wan and laid seven nests of eggs during the summer of 2008. She was the first recorded Green Turtle that returned to nest in Hong Kong. Artificial incubation was carried out on four nests of eggs and the successful hatching rates were generally higher than 90%. Most of the baby turtles were released back in Sham Wan after hatching. To commemorate the sighting of "Hong Kong 2" nesting, a thematic exhibition was held at the Hong Kong Wetland Park to

foster public awareness and appreciation of Green Turtles.

My review of the year would not be complete without my heartfelt appreciation of our collaborative partners for their co-operation and unrelenting support, and to the members of the advisory committees and boards for their valuable advice and contributions. I would also take the opportunity to express my appreciation of the commitment, diligence and professionalism of all my colleagues in AFCD. They are instrumental in contributing forwards the sustainable development of the local agricultural and fisheries industries, and conservation of our natural environment, protection of endangered species, and safeguarding the integrity of our ecosystem and biodiversity.

#### Alan Wong Chi-kong Director of Agriculture, Fisheries and Conservation





漁農自然農生考年転 Agriculture, Fisheries and Conservation Department Report 2008-2009

# **Overview**

The main objectives of the Agriculture, Fisheries and Conservation Department (AFCD) are -

- facilitating agricultural and fisheries production and improving productivity;
- managing government fresh food wholesale markets;
- conserving flora, fauna and natural habitats;
- managing country parks, special areas, marine parks and marine reserves;
- protecting endangered species;
- protecting animal welfare; and
- controlling animal and plant diseases.



In addition to the overall administration by the Director and the Deputy Director, the Department is organised into the following five functional branches -



- Agriculture Branch;
- Fisheries Branch;
- Inspection and Quarantine Branch;
- Conservation Branch; and
- Country and Marine Parks Branch.

The following chapters set out the work of these branches.





漁農自然證理若年報 Agriculture, Fisheries and Conservation Department Report 2003-2003



## WORK OF THE AGRICULTURE BRANCH

#### The objectives of the branch are:

- To provide basic agricultural infrastructure and technical support for the development of modern, efficient and environmentallyfriendly farming;
- To ensure the adequate provision and efficient operation of the government's wholesale marketing facilities for fresh food produce;
- To register credit unions and co-operatives and perform related duties;
- To license and regulate livestock farms; and



• To provide administrative support to the Vegetable Marketing Organisation (VMO).

## THE AGRICULTURE INDUSTRY

Agriculture in Hong Kong is undertaken mostly in the urban fringes. Currently, only 19 square kilometres out of the territory's 1,104 square kilometres of land area are farmed. Some 4,900 farmers, about 0.13 per cent of the territory's total work force, are engaged in agriculture.



The local agricultural industry involves producing quality fresh food through intensive land use and modern farming practices. Despite its relatively small scale, the industry produces a substantial amount of vegetables, poultry and pigs. Local agricultural production in the years 2007 and 2008 were valued at about \$1.09 billion and \$0.69 billion respectively. Statistics on agricultural production, fresh foodstuff consumption and agricultural land utilisation are at Appendices 1 to 3.

Vegetable crops grown year-round include

Chinese white cabbage, flowering Chinese cabbage, lettuce and celtuce. Long bean, water spinach, Chinese spinach, cucumber and several species of Chinese gourd are produced in summer, while spinach, watercress, Chinese kale and matrimony vine are grown in the cooler months.

Orchids and ornamental plants are now grown all year round. Dahlia, chrysanthemum, lily and gladiolus are grown in winter, while ginger lily, lotus flower and sunflower are grown in summer. Peach blossom is grown specially for the Lunar New Year season.

## **PREMIUM VEGETABLES**

#### General

The Department continues to promote the cultivation of premium vegetables to serve niche markets and help farmers

gain better economic returns. Three improved varieties including little cucumber, dark leaf Chinese white cabbage and leaf beet were introduced to farmers for production.

#### Local Vegetable Farm Voluntary Registration Scheme

Since July 2006, the Department has been running a voluntary registration scheme for local vegetable farms. Under the scheme, the Department has set up a central vegetable farm database containing farmers' particulars, farm size, location and horticultural details. As at March 2009, 2,003 farms covering a total area of 407 hectares have joined the scheme.

#### **Accredited Farm Scheme**

The Department has been running a voluntary Accredited



Farm Scheme since 1994. Under the Scheme, the Department advises participating farmers on the proper and safe use of pesticides; monitors their horticultural practices and samples their vegetables for pesticide residues analysis. Accredited farmers market their vegetables through the VMO which distributes vegetables to designated retail outlets including wet market stalls and supermarkets. To enable easy identification by the public, every designated outlet carries a logo of VMO "Accredited Retailer".

As at March 2009, 215 local farms covering a total area of 75 hectares and 35 vegetable farms operating by Hong Kong farmers in Guangdong covering 2,042 hectares had been accredited. There were 271 accredited retail outlets located in different districts to provide easy access to accredited vegetables for consumers.

#### **Organic Farming**



Since December 2000, the Department has been helping local farmers shift towards organic farming practices by providing relevant knowledge, technical support and low-interest loans, while the VMO assists farmers in selling their organic produce through its established sales channels.

Up to March 2009, 128 farms covering a total area of 50 hectares have joined the Department's "Organic Farming Support Service". Together, on average they produce about four tonnes of organic vegetables per day,

including vegetable varieties such as lettuce, white cabbage, flowering cabbage, water spinach, Chinese spinach, Chinese kale, Garland chrysanthemum, eggplant, bitter cucumber, wax gourd, yard-long bean, cherry tomato, carrot, etc.

The Department also actively supports the Hong Kong Organic Resource Centre (HKORC), a non-profit organisation co-founded by the Hong Kong Baptist University, the Hong Kong Organic Farming Association and the Produce Green Foundation, to develop and implement certification standards for organic production and processing in Hong Kong. Since the launch of this organic certification service in late 2004, 58 organic farms and 3 processing companies have been certified.

## AGRICULTURAL STRUCTURES

#### Greenhouses

Controlled-environment greenhouses are built with transparent plastic films or polycarbonate sheets to provide an enclosed environment that enables the regulation of temperature, humidity and intensity of light for the optimal production of crops. To further increase productivity, advanced greenhouses are often equipped with automatic irrigation, fertilisation and/or spraying systems as well.

The Department has adapted greenhouse technology to local conditions and extended it to farmers through seminars and demonstrations for the intensive production of high value crops, such as white bitter cucumber, rock melon, edible fungus, edible white chrysanthemum and lily. Newsletters are issued regularly to update farmers on the latest developments and an electronic version is also available on the Department's website.



#### Letters of Approval

Under the terms and conditions of land grants, a farmer who wishes to build an agricultural structure (greenhouse, livestock shed, hatchery, fish pond or store room) on leasehold agricultural land must apply to the Lands Department for a Letter of Approval for Agricultural Structures. To facilitate applications by farmers, the AFCD has streamlined procedures with the Lands Department and taken up the responsibility for assessing such applications. During 2008-09, the Department processed 14 applications covering 29 agricultural structures.

## SUPPORT AND ASSISTANCE

#### Agricultural Support Services



The Department promotes the return of fallow land not earmarked for development to cultivation by helping farmers arrange land tenancy, improving soil conditions, and providing marketing facilities and farm road access. During 2008-09, about 0.6 hectare of such rehabilitated agricultural land was serviced. The Department responded to 4,524 technical inquiries related to agricultural production or development and conducted 533 field investigations in connection with irrigation and other agricultural matters.

#### Agricultural Credit

The Department operates the Kadoorie Agricultural Aid Loan Fund, the J.E. Joseph Trust Fund and the Vegetable Marketing Organisation Loan Fund to meet farmers' credit needs. A total of \$5.98 million was lent to farmers during 2008-09, including 54 loans (\$3.24 million) to crop farmers and 27 loans (\$2.74 million) to livestock farmers. A total of \$5.79 million was lent to fish farmers, including 9 loans (\$0.76 million) to pond fish farmers and 50 loans (\$5.03 million) to mariculturists.

#### **Emergency Relief**

Emergency relief grants are issued to needy farmers who suffer from natural disasters to help them rehabilitate their farming operations. Grants totalling \$4.09 million were distributed to 1,400 farmers during 2008-09.

## FRESH FOOD WHOLESALE MARKETS

The Department manages four government wholesale food markets, providing some 2,600 trading stalls and related ancillary facilities. Altogether, these markets provide some 39.2% of the fresh food items (vegetables, freshwater fish, eggs, fruits and live poultry) consumed by the community. Appendix 14 gives details of the market throughput in these wholesale markets.

## VEGETABLE ORGANISATION

# MARKETING

The Vegetable Marketing Organisation (VMO) is set up under the Agricultural Products

(Marketing) Ordinance (Cap 277) as a non-profit making concern to provide facilities and services for the orderly and efficient marketing of vegetables. The organisation charges wholesalers a commission of up to 10% of the total value of sales for providing trading facilities, accounting and pesticide residue testing services. Its surpluses are used to support agricultural programmes and development projects. In addition, the VMO has set up the VMO Loan Fund to provide credit assistance to farmers, and the Agricultural Products Scholarship Fund to promote education and training in agriculture.

### LIVESTOCK FARM LICENSING



Since the implementation of the Livestock Waste Control Scheme in 1994, all livestock farms must hold a Livestock Keeping Licence (LKL) for the keeping of livestock. In order to obtain an LKL, the farmer must install appropriate waste treatment facilities that meet minimum discharge standards. An LKL also contains provisions relating to the protection of public health and includes conditions relating to the control and prevention of animal diseases, such as avian influenza. All licensed livestock farms are inspected regularly, particularly those suspected of discharging waste illegally or where

waste treatment practices have caused a nuisance to surrounding communities. Action is also taken against illegal livestock keeping.

With the rapid urbanisation of the New Territories, pig farming has brought about public health and pollution concerns. A one-year voluntary scheme was thus implemented in June 2006 for those who opted to surrender their LKL and cease business permanently in exchange for the grant of an ex-gratia payment. The scheme ended in May 2007. With 222 pig farms participated in the scheme, 43 pig farms remain operating with a total rearing capacity of 74,640 pigs.

To lower the risk of avian influenza, the government imposed a ban of overnight stocking of live poultry in retail markets with effect from 2 July 2008. Being affected by the new measure, the majority of live poultry retailers preferred leaving the live poultry trade industry. Poultry farmers were thus invited to apply for a buyout scheme. The scheme ended at 24 September 2008. With 22 poultry farms participated in the scheme, 30 poultry farms remain operating with the total on-farm chicken population decreased by 24% from 1.7 million to 1.3 million.







漁農自然簡理若年報 Agriculture, Fisheries and Conservation Department Report 2003-2009

# **Fisheries**

## WORK OF THE FISHERIES BRANCH

The objectives of the branch are:

- To provide financial and technical support to fishermen and fish farmers for promoting the sustainable development of the fisheries industry;
- To enforce legislation to regulate the fisheries industry;
- To plan and implement suitable projects and measures for the conservation and management of fisheries resources; and
- To provide administrative support to the Fish Marketing Organisation (FMO).



## THE FISHERIES INDUSTRY

The fisheries industry, which comprises capture fisheries, mariculture and pond fish culture, provides a steady supply of fresh fish to the local market. In 2008, the capture fisheries and mariculture sectors accounted for about 22% of all seafood consumed in Hong Kong, whereas pond fish farms produced about 5% of the total consumption of freshwater fish.



## **Capture Fisheries**

In 2008, the number of fishing vessels was about 3,800 and that of local fishermen was about 8,000. The main fishing methods are trawling, long-lining, hand-lining, gill-netting and purseseining, with about 86% of the total catch obtained through trawling. The number of fishing vessels by type is at Appendix 4. In 2008, the industry produced an estimated 158,000 tonnes of fish products, of which about 50,000 tonnes were consumed in Hong Kong.

#### Mariculture

Mariculture involves rearing marine fish in cages suspended by floating rafts in sheltered coastal areas. In 2008, there were about 1,060 licensed operators in the 26 fish culture zones designated under the Marine Fish Culture Ordinance (Cap 353) (a location map is at Appendix 5), occupying a sea area of 209 hectares. Most licensed operations are small and family-based, with farm size averaging about 280 square metres. Estimated production in 2008 was 1,370 tonnes, or about 10% of all locally consumed live marine fish.

## **Pond Fish Culture**

Most inland ponds are located in the Northwest New Territories. These ponds, covering some 1,160 hectares, produced 2,270 tonnes of freshwater fish in 2008. Most ponds practise polyculture of carps mixed with tilapia or grey mullet. Some coastal ponds have been converted to culture brackish species, such as scat, sea bream, pampano and giant grouper, to reap better profits.



## SUSTAINABLE DEVELOPMENT

The Department has implemented various measures to promote the sustainable development of the fisheries industry.

**FISHERIES** 

## **Capture Fisheries**

#### **Combating Destructive Fishing Practices**

Hong Kong waters are patrolled regularly to deter destructive fishing practices prohibited under the Fisheries Protection Ordinance (Cap 171). These practices include the use of explosives, toxic substances, dredging or suction devices and apparatus that transmits electricity. Three cases of illegal fishing were successfully prosecuted in 2008.

#### **Artificial Reefs Deployment**

Artificial reefs are effective in promoting the growth and development of various marine organisms which in turn provide food, protection and shelter for fish. Since 1996 the Department has been implementing an artificial reefs programme and some 175,000 cubic metres of artificial reefs have been deployed at suitable locations including Marine Parks, and important fish spawning and nursery grounds in Port Shelter and Long Harbour. Over 220 species of fish, including many high-value ones such as grouper, bream, snapper and sweetlip, have been found using the reefs for feeding and shelter, as well as spawning and nursery. To improve the water quality and seabed condition of fish culture zones, artificial reefs used as biofilters were deployed in the Kau Sai, Sham Wan and Lo Tik Wan fish culture zones.

#### **Support Services**

The Department provides technical support, training and liaison services, and credit facilities to fishermen. During the year, the Department continued to liaise with both Mainland and foreign fisheries authorities and agencies to obtain information on recreational fishing, aquaculture, fish processing and offshore fishing, and disseminate it to fishermen. Technical advice was also given to fishermen to help formulate their development proposals.

To help some 1,200 fishing vessels affected by the annual two-month fishing moratorium in the

South China Sea implemented by the Mainland authorities and the high fuel price in 2008, special fishing moratorium and extra loans were made available to the affected vessels' owners under the Fish Marketing Organisation Loan Fund. Some 530 fishing moratorium loans and some 260 extra loans totaling \$76.5 million were issued to affected fishermen in 2008. Vocational training courses and seminars were also organised for fishermen during the period to raise their awareness of fisheries management and conservation, and to upgrade their knowledge and skills in vessel operation and fishing techniques.

#### **Fisheries Impact Assessment**

To protect fisheries resources and habitats, the Department continued to vet and provide professional advice on development proposals as well as relevant Environmental Impact Assessment studies, monitoring and audit programmes to ensure that the potential impacts of development projects on fisheries would be adequately addressed, evaluated and minimised through effective mitigation. The Department also assisted in conducting investigations in fish kills or water quality deterioration incidents allegedly caused by development projects with a view to providing prompt advice on remedial actions and minimising fish loss.

## Aquaculture

#### Proper Management of Marine Fish Culture Activities

Under the Marine Fish Culture Ordinance (Cap 353), all marine fish culture activities in Hong Kong are required to be operated under licence in designated fish culture zones. The Department conducts regular patrols in these fish culture zones to ensure that fish culture activities comply with the Ordinance and the licence conditions.

To meet the public demand for recreational fishing facilities and to help mariculturists diversify their business, the Department has implemented a scheme to allow mariculturists to operate recreational fishing business on licensed fish culture rafts. As at March 2009, 39 licencees in 9 fish culture zones have been given the permission to conduct such business.

#### Safeguarding Aquaculture Environment

To minimise the impact of red tides and water quality deterioration on mariculture, the Department regularly monitors water quality of fish culture zones and implements a red tide monitoring and management programme. The latter includes proactive phytoplankton monitoring before the formation of a red tide and rapid risk assessment of reported red tide incidents. A computerised system using Geographic Information System technology has been established to help visualise the spatial and temporal distribution of red tides and provide a guick analysis of their development



and movement. Prompt red tide warnings and technical advice are disseminated to mariculturists and the public through the red tide support groups set up in various fish culture zones, press releases and the Red Tide website (<u>www.hkredtide.org</u>).

Fifteen red tide incidents were recorded in Hong Kong waters in 2008. No fish kills arose from any of these incidents.

#### **Promoting Good Aquaculture Practices**

To help fish farmers minimise losses due to fish disease, the Department has put in place a fish health inspection programme. During the year, regular farm visits were conducted to facilitate early detection of disease outbreaks, training was provided to fish farmers on disease prevention measures, and fish disease diagnosis and treatment services were given in case of an outbreak. A new "Good Aquaculture Practices Programme" has been launched in 2008 to enhance fish farm management. Under the programme, the Department visits fish farms regularly to collect water and fish samples for analysis to monitor conditions of the farms. Seminars, on-farm demonstrations and advisory leaflets are given to farmers on new techniques and good management practices.

#### Accredited Fish Farm Scheme

The Department introduced a voluntary Accredited Fish Farm Scheme in mid 2005 to enhance the competitiveness of the local aquaculture industry. Participating fish farms are required to adopt a set of good aquaculture practices with a view to raising the environmental hygiene standards of the fish farms and the quality of cultured fish. Quality assurance tests, including analyses of drug residues and heavy metals in fish, are conducted to ensure that all cultured fish meet food safety



standards before they are sold in the market. The scheme has been very well received by local mariculturists and pond fish farmers. As at March 2009, a total of 82 fish farms (23 fish ponds and 59 mariculture farms), representing 12% of the total area of local fish farms, have registered under the scheme. In collaboration with the FMO, the Department continues to publicise and promote the marketing of fish products under this brand name.

#### **Culture Trials of New Fish Species**

To provide a wider choice of species for culture, the Department proactively identifies new species with good market potential that can be recommended to farmers. Following the successful completion of culture trials on jade perch (*Scortum barcoo*), the Department assisted fish farmers to conduct trials on the hatching of fertilised eggs and rearing of fish fry, and induced spawning of jade perch with a view to helping them secure a stable supply of fish fry at a lower cost. Jade perch, originated from Queensland, Australia, is a good candidate for pond fish culture. It is of high nutritional value, with an especially high percentage of poly-unsaturated fatty acids. Since 2006, jade perch has been marketed as an accredited produce under the Accredited Fish Farm Scheme and well received by the public.



#### Voluntary Registration of Local Aquaculture Farms

To promote the quality of local aquaculture farms, the Department implemented a voluntary registration scheme for local pond fish farms. As at March 2009, 268 pond fish farmers have registered under the scheme.

# Promoting Development of Local Fish Hatchery

The Department conducted a fish hatchery trial in Ta Kwu Ling in mid-2008. A training workshop was organised there jointly with the Network of Aquaculture Centres in Asia-Pacific (NACA) in September 2008 to help local farmers acquire technical know-how and share practical experience with the overseas experts from NACA.



#### **Committee on Sustainable Fisheries**

A Committee on Sustainable Fisheries was set up in December 2006 to study the long term goals and directions as well as feasible options and implementation strategy for the sustainable development of the fisheries industry, with regard to fisheries trends, ecological sustainability, economic viability and other relevant factors, such as financial implications and social impact. The Department chairs and provides supporting services to the Committee. Since its establishment, the Committee has conducted a thorough review of the issues pertaining to local fisheries, and explored various possible measures that might contribute to the sustainable development of the fisheries industry and conservation of marine resources in Hong Kong. The Committee is expected to submit its report in 2009.

## Marketing



During the year, the Department continued to provide technical and administrative support to the FMO, a statutory organisation established under the Marine Fish (Marketing) Ordinance (Cap 291) to ensure that orderly fish marketing services were provided to fishermen and fish traders through the wholesale fish markets operated by the FMO. The Department also continued to undertake enforcement actions against illegal wholesale marketing of marine fish in accordance with Cap 291.

#### **Promotion of Local Fisheries Products**

The Department works closely with the FMO to promote local fisheries products. During the year, the FMO continued to develop quality fisheries products at its processing centre and to bring local fisheries products, in particular fish accredited under the Accredited Fish Farm Scheme, to the public through its marketing network.





# **Inspection and Quarantine**

## WORK OF THE INSPECTION AND QUARANTINE BRANCH

The objectives of the branch are:

- To investigate and control the outbreaks of animal diseases;
- To promote animal welfare and manage stray animals;
- To monitor and control the trade of animals;
- To formulate protocols and regulate the importation of animals/plants and their products;
- To certify and facilitate exportation of animals/plants and their products;
- To provide veterinary diagnostic support and surveillance services for detecting diseases and drug residues in food animals;
- To conduct livestock farm inspections;
- To facilitate access to approved chemicals for use in food animals; and
- To control and regulate the use of pesticides.

## **PREVENTION OF AVIAN INFLUENZA**



To safeguard the population against Avian Influenza (AI), the Department continued its year-round programme to monitor and screen for the presence of the virus at various sites considered to be at risk, such as poultry farms, the wholesale poultry market, pet shops, recreational parks and nature reserves. Dead birds were also collected and tested daily. In 2008-09, over 41,300 carcasses and faecal swab samples were collected at various locations and tested for the virus. Except for 5 wild birds found dead at various locations and 11 dead poultry found at the western coastline

of Hong Kong, the highly pathogenic H5N1 AI virus was not detected in any sample during the year. The number of positive cases found was considered to be normal for the period.

To enforce the legislation enacted in February 2006 to ban the keeping of backyard poultry (chickens, ducks, geese, pigeons and quails), Departmental staff patrolled all local villages and seized 127 poultry in 2008-09. Offenders are liable to a maximum fine of \$100,000.

To enhance public awareness of the prevention of AI, a promotional programme was held before Lunar New Year 2009. AFCD staff visited 27 villages to disseminate messages about AI prevention. Leaflets and posters were put up onto the village information boards. Seminars were held for primary school students; leaflets and souvenirs were delivered to members of the public. Furthermore, a blitz operation, codenamed "Operation Goose", was conducted in early February. Department staff patrolled some 1,100 villages and 97,800 households and seized 38 chickens, 3 ducks, 3 geese and 10 pigeons. In another joint operation with the Environmental Protection Department conducted at Ping Chau, 1 stray duck was found and culled.

The Department from time to time issued reminders to relevant religious organisations not to release birds to the wild. Organisations contacted agreed to cooperate and inform their



members about the advice.

## LIVESTOCK FARM INSPECTIONS

To protect the general population from AI, the Department has imposed biosecurity requirements on local poultry farms, in addition to the implementation of a universal compulsory AI vaccination programme. Every batch of local chickens is also tested for AI, and only when the results are negative are the chickens allowed to be sold for human consumption.

Following the AI outbreak in a chicken farm in Yuen Long in December 2008, AI control and monitoring measures have been stepped up



through the increase of farm inspection and sampling size for AI tests. The Department took on board the recommendations of the Investigation Group on Epidemiological Study for the incident and adopted various measures to facilitate the implementation of enhanced biosecurity measures on local farms.

During the year, AFCD staff conducted more than 3,600 inspections of local livestock farms and quarantined 1,187 pigs imported for breeding purposes. One pig farm was prosecuted and convicted of offences for using prohibited chemicals.

## **VETERINARY DIAGNOSTIC LABORATORY**

The Laboratory provides veterinary diagnostic support services including testing services of animal pathogens and chemical residues in pre-slaughter food animals etc. During the year, over 9,200 requests were received for animal, bird and fish disease investigation. About 264,900 tests for AI, and over 97,700 for chemical residue monitoring were conducted.

## **ANIMAL AND PLANT QUARANTINE CONTROL**

As the animal import and export control authority in Hong Kong, the Department is responsible for ensuring that all cross-border animal movements are closely monitored to prevent the introduction of animal diseases into Hong Kong.

Special permits issued by the Department are required for the import of live animals and birds in accordance with the Public Health (Animals and Birds) Ordinance (Cap 139) and the Rabies Ordinance (Cap 421). Importing animals and birds without a special permit is liable to prosecution. In 2008-09, a total of 4,921 permits were issued for the import/transit of live animals and birds.

To comply with the import requirements of destination places, the Department issues animal health certificates to facilitate the export of animals and birds from Hong Kong. In 2008-09, a total of 3,671 applications for Animal Health Certificates were processed by the Department.



To strengthen the efforts to prevent illegal importation of animals and to safeguard public health, the Ouarantine Detector Dog (ODD) Programme commenced operation in February 2008 at various land control points. The use of QDD has been shown to be an effective, internationally recognised tool for the detection of prohibited items. The QDD can detect many controlled items including mammals, birds, reptiles and other animal products even when they are hidden in baggage or under several layers of clothing. During the year, QDD has been assigned to

various boundary control points including Lok Ma Chau, Shenzhen Bay and Airport. More than 180,000 travellers were screened and 148 illegal import cases were detected. They included live animals such as dogs, hedgehogs, sugar gliders and highly endangered tortoises, and animal products such as unprocessed poultry parts and other meat. To enhance publicity to raise public awareness of import animal control, QDD has performed and demonstrated in various public functions and activities.

Hong Kong has a considerable volume of seed trade. In 2008, the value and quantity of seeds imported and re-exported through Hong Kong amounted to \$330 million and 5,455 tonnes respectively. To facilitate the re-export trade, the Department began issuing Phytosanitary Certificate for Re-export in full compliance with the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures and the relevant international standards. Statistics on plant import controls and phytosanitary certification services are at Appendix 7.

## **CONTROL ON PESTICIDES**

The consultation on a new pesticide control regime was completed in 2007 and the law drafting procedure is in process. The main areas under review include product registration, better control of pesticides and the specification for performing the duties under the Stockholm Convention and the Rotterdam Convention.

Tributyltin compounds, pesticide used to be widely applied in antifouling paints for ship hulls, has been listed as a hazardous chemical pesticide under the Rotterdam Convention for regulation where export of this pesticide requires prior consent of the importing place. The Department will fulfill the Convention's requirements through the regulatory framework provided under the Pesticides Ordinance (Cap 133) and the Import and Export Ordinance (Cap 60).

During the year, the Department approved the registration applications for several environmentally friendly pesticides submitted by pesticide manufacturers. These pesticides included a liquid formulation containing allicin/capsaicin as an insect repellent for control of plant pest and a dustable powder formulation containing amorphous silicon dioxide/celastrus alkaloids/disodium octaborate tetrahydrate which is used as a household pesticide. Statistics on pesticide control are at Appendix 8.

## **PLANT VARIETIES PROTECTION**

The Plant Varieties Protection Ordinance (Cap 490) provides plant breeders with the legal means to apply for proprietary rights over cultivated plant varieties they have bred and developed. Grantees shall have the exclusive rights to import, export, produce and sell reproductive materials of the protected varieties. The rights will be granted for a term of 20 or 25 years. A new Kiwifruit variety called "Hongyang" was granted plant variety rights during the year. This new Kiwifruit variety is distinctive for its deep red-colored flesh with sun like radial pattern.



## **PREVENTION OF RABIES**



In 2008-09, a total of some 56,000 dogs were licensed and vaccinated against rabies. To safeguard the public from aggressive dogs and cats and to improve environmental hygiene, some 8,400 stray dogs and 4,500 stray cats were caught or handled during the year. Healthy animals with good temperaments would be selected for re-homing. About 870 animals were re-homed through animal welfare organisations. To strengthen the prevention and control of rabies and to enhance the efforts in combating animal smuggling, the Department plans to implement new additional conditions attached to animal trader licence in the first quarter of 2010 whereby the regulation of source of dogs supplied to animal traders will be strengthened.

## ANIMAL WELFARE

Under the law, all animal traders have to be licensed. In 2008-09, some 400 Animal Trader Licences were issued, covering the trade of dogs, cats, pet birds, food birds and food reptiles.

Since December 2006, anyone found guilty of cruelty to animals is liable to a maximum fine of \$200,000 and imprisonment for 3 years. During the year, there were 10 successful prosecutions relating to animal cruelty.

The Department promotes kindness to animals



through its continued public education and publicity campaigns. An Announcement in the Public Interest (API) was launched to educate and appeal to the public to report any cases of animal cruelty. To further promote animal welfare and responsible pet ownership, the Department organised a roving exhibition and a slogan competition drawing some 7,000 entries from primary and secondary schools. Public awareness programmes on respecting animal life covering both the media and transport system were also conducted throughout the year.

## **2008 OLYMPIC AND PARALYMPIC EQUESTRIAN EVENTS**

The Equestrian Events of the XXIX Olympiad and XIII Paralympic Games were staged in Hong Kong in August and September 2008 respectively. The Department was proud to have played a part in contributing to the success of these events.



A total of 287 equestrian horses arrived in Hong Kong from late July to end of August 2008 for the Olympic and the Paralympic Games. As the inspection and quarantine authority for animals and plants, the Department was responsible for enforcing the established protocols regarding the import, quarantine and re-export of horses that participated in the Equestrian Events, as well as the associated horse feed and bedding material of plant origin. During the events, the Department issued 25 plant import licenses for the import of a total of 101 metric tonnes of

horse feed and bedding material. The import consignments were subjected to rigorous inspection and no plant pests and diseases were detected. In addition, the Department was also responsible for monitoring the stabling and welfare of all participating horses.

All competing horses from overseas underwent a minimum of 7 days Pre-Export Quarantine (PEQ) in an approved quarantine stable before departure to Hong Kong. Totally 25 premises were approved by the Department for the PEQ of the Olympic and Paralympic equestrian event horses. The PEQ premises were distributed in Australia, Austria, Belgium, Canada, France, Germany, the Netherlands, the United Kingdom and the United States of America. Veterinary staff were deployed to Europe to oversee the final preparations and the departure of some of the horses competing in the equestrian events. Meanwhile in Hong Kong, two local Paralympic horses completed 7 days of pre-requisite quarantine and veterinary inspection in a dedicated block at the Hong Kong Jockey Club.

Horses that were imported into Hong Kong for the competition then underwent Post Arrival Isolation (PAI) in the Shatin and Beas River competition venues for a total of 10 days. AFCD officers oversaw the proper implementation of the quarantine protocol by all national teams. All parties observed the biosecurity requirements and standard operating procedures set for the PAI. No major incidents were reported and no cases of infectious disease occurred among the equestrian event horses.

The 287 equestrian event horses that competed in the Olympic and Paralympic Games departed Hong Kong after the competitions. AFCD veterinary officers examined the horses at the PAI premises and prepared all relevant documents within 24 hours of the departure of the horses. Health



certificates for these horses were then issued in accordance with each of their import countries' requirements for their safe and smooth onward journey. With the endeavour of all of our staff, the quarantine work of Olympic and Paralympic Games was successfully completed.





漁農自然幕理署年期 Agriculture, Fisheries and Conservation Department Report 2003-2009

# **Nature Conservation**

## WORK OF THE CONSERVATION BRANCH

The objectives of the branch are:

- To conserve local flora, fauna and natural habitats by offering professional advice on development proposals, planning strategies and environmental impact assessments;
- To draw up and implement biodiversity conservation plans, as well as to identify Sites of Special Scientific Interest (SSSI);
- To conduct regular ecological surveys, update inventories and manage an ecological database for Hong Kong;
- To monitor the ecology of the Mai Po Inner Deep Bay Ramsar Site and to develop and manage the Hong Kong Wetland Park;
- To protect endangered animal and plant species; and
- To promote public awareness of and participation in nature conservation through publicity and educational activities.

## NATURAL ENVIRONMENT



Hong Kong's topography and subtropical climate provide a wide range of habitats that support a rich variety of flora and fauna. Scenically, it has a great deal to offer – a landscape rising from sandy beaches and rocky foreshores to a height of almost 1,000 metres, with woodlands and hilly areas covered by open grassland, as well as a variety of scenic vistas rarely seen in such a small locale.

In Hong Kong, there are more than 3,100 species of vascular plants, of which about 2,100 are native; 56 species of mammals; 491

species of birds; 167 species of freshwater fish; 88 species of reptiles and 24 amphibian species. Insect diversity is also very high with some 240 species of butterflies and 110 species of dragonflies.

## **ENHANCED NATURE CONSERVATION**

Under the New Nature Conservation Policy announced in November 2004, 12 priority sites been identified for enhanced have public-private conservation through (PPP) partnership and management agreements with landowners (MA). The Department is responsible for monitoring PPP and MA projects selected for implementation by the private sector or non-governmental organisations in these sites.



As at March 2009, there are two MA projects at Long Valley and Fung Yuen priority sites. The increase in the number and diversity of birds and butterflies suggested that the MA scheme was effective in enhancing the conservation value of the sites. In addition to the direct benefit to biodiversity, the projects also raised the conservation awareness of the public and local villagers.



## **ECOLOGICAL SURVEYS AND DATABASE**



The Department has been conducting a territory-wide ecological survey programme since 2002 with a view to maintaining and updating an ecological database for the whole of Hong Kong. The survey programme covers all major habitats of high conservation value in Hong Kong, including the location, status and composition of fung shui woods, as well as the distribution and abundance of selected animal groups. As at March 2009, more than 70,000 records of over 4,000 species of plants and animals had been collected, verified, and stored in the database.

The survey findings confirm that Hong Kong has a rich biodiversity, including species new to Hong Kong and even new to science. The findings further indicate that our protected areas encompass a very significant portion of this biodiversity. For the species groups surveyed and analysed, more than 98% of the terrestrial and freshwater species that are regularly seen in Hong Kong have representative population(s) inside our protected areas.

During the year, the Department continued to boost public interest in local biodiversity and win public support for nature conservation through its online database on representative species and habitats at Hong Kong Biodiversity Online (<u>www.hkbiodiversity.net</u>). The Department also developed a central database using the Geographical Information System which incorporates survey data and ecological information available from other sources.

## THE MAI PO INNER DEEP BAY RAMSAR SITE



Since August 2001, the Department has implemented the Mai Po Inner Deep Bay Ramsar Site Ecological Monitoring Programme. This long-term monitoring programme aims to collect ecological baseline information on the marine benthic communities, over-wintering waterbird counts and the extent of habitation at the Ramsar Site.

From October 2008 to March 2009, the highest winter count of waterbirds at the Ramsar Site was about 87,630, including some 38,100 ducks and grebes, some 24,070 shorebirds, some 11,210 gulls and terns, some 8,740 cormorants, some 4,380 egrets and herons, and some 460 rails and coots. In comparison with the winter figures for 2007-08, there was a 4% decrease in the population of waterbirds in the Ramsar Site but was above the range between 57,000 and 64,000 individuals recorded since winter 1997-98. It was the second highest record since 1992-93 winter.

## **BLACK-FACED SPOONBILLS**

The Black-faced Spoonbill is a globally endangered species that can only be found in the East Asia region. In 2008-09 winter, the global population survey recorded 2,041 individuals. The highest count for wintering population in the Deep Bay area, which was recorded in December 2008, was 421 individuals, i.e. about 21% of them made the Inner Deep Bay area their winter or stop-over migration site. The area has the second largest number of wintering Black-faced Spoonbills in the East Asia region.

Accordingly, maintaining the Mai Po Inner Deep Bay Ramsar Site in favourable conditions for the wintering Black-faced Spoonbills in Hong Kong has been an important aspect of the



territory's conservation plan since 2001. Other parts of the plan include safeguarding the site; species and habitat management; monitoring and research; education and training as well as regional cooperation.

## **GREEN TURTLES**



Green Turtle is the only species of sea turtles that breeds regularly in Hong Kong. During July to October 2008, Green Turtle "Hong Kong 2" which was recorded in 2003, returned to Sham Wan and laid seven nests of eggs. She was the first recorded Green Turtle which returned to nest in Hong Kong. Subsequent satellite tracking showed that "Hong Kong 2" returned to her foraging site in Bach Long Vi Island of Vietnam after traveling about 800 km in 11 days.

Artificial incubation was carried out for four

nests of eggs as the weather was predicted to be too cool for hatching. The incubation rates of the eggs were generally over 90%. Most of the baby turtles were released back in Sham Wan after hatching while the weather was still warm. As the last nest was hatched in early December 2008 when the temperature was lower, the full batch of 22 baby turtles had been kept in the Hong Kong Wetland Park and for release in 2009 summer.

## **CONTROL OF TRADE IN ENDANGERED SPECIES**

The Protection of Endangered Species of Animals and Plants Ordinance is the local legislation which gives effect to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In 2008-09, the Ordinance was amended to give effect to the changes that were adopted by the 14th Meeting of the Conference of the Parties (CoP14) to the Convention. The legislative amendments came into effect in March 2009 and more species were added to the control list, including Sawfish, European Eel and Brazil Wood.

Efforts in combating illegal trade in endangered species continued. During the year, 285 seizures were made, including a shipment of 106 live monitor lizards and 70 live snakes from Malaysia, 15 kg of rhinoceros horns from Taiwan, 25 tonnes of Red Sandalwood from Malaysia and 45 kg of ivory from Mozambique.



The Department

continued its educational and promotional efforts to raise public awareness of the need to endangered protect species, such as visits to the Department's organising Endangered Species Resource Centre. conducting talks in schools and roving exhibitions at public venues, distributing posters and leaflets as well as arranging



displays at the airport and border control Under the "Young Ambassador points. Endangered Programme for Species co-organised Protection" with local а newspaper, 40 students were selected and appointed as ambassadors to promote endangered species protection in schools and communities. Regarding the joint education and publicity efforts between the Hong Kong Special Administrative Region and Guangdong Province, an "Endangered Species Protection Summer Camp" for teenagers from Hong Kong and the Mainland as well as a training course

for CITES enforcement officials were organised.

## THE HONG KONG WETLAND PARK

The Hong Kong Wetland Park was opened in May 2006. It is a landmark in wetland conservation, with a mission to promote ecotourism in Hong Kong and foster public awareness of the values of wetlands. The design of the Park has won much praise. Since its opening, the Park has received over 15 awards.

The Park combines the natural beauty of 60 hectares of re-created wetland with a visitor centre of over 10,000 square meters showcasing sophisticated exhibits on wetlands.



During the year, the Park attracted about 430,000 visitors.



The Department is responsible for the management of the Park, with respect to daily operation, education and promotion, exhibit maintenance and habitat management.

In 2008–09, the Park conducted some 7,000 guided visits for more than 158,000 students and visitors. Two thematic websites and two pamphlets were produced to help teachers and the public to understand more about wetland ecology as well as our conservation work. In addition, a total of 18 public seminars and 5 thematic activities of different scales were held

at the Park, which attracted over 1,400 visitors and 90,000 visitors respectively. The Park recruited more than 1,500 volunteers under the Wetland Park Volunteers Scheme during the year. These volunteers assisted in the operation of the visitor centre at the Park and offered guided tours for visitors. They also participated in outdoor habitat management work. By March 2009, the number of man-days served by the volunteers had exceeded 5,000.

The Park plays an important role in promoting wetland conservation and education in the Asia Pacific region. Being a key player of the Wetland Link International – Asia (WLI-Asia) network, the Hong Kong Wetland Park and Sungei Buloh Wetland Reserve of Singapore jointly organised a "Sister Wetland Affiliation Programme" in 2008. Highlight of the progamme was the student exchange visit to wetland parks and nature reserve in Hong Kong and Singapore in November 2008 and February 2009 respectively.

Since 2003, the Department has been conducting habitat management at the Wetland Reserve with a view to enhancing its ecological functions. The species richness of birds recorded has since increased, and the cumulative number of bird species recorded has exceeded 230. Waterbirds or birds dependent on wetlands which make up approximately 36% of all species recorded. The freshwater marshes were becoming more attractive to ducks in the winter of 2008-09. In addition to birds, ecological surveys conducted at the Reserve have recorded a variety of other species especially the wetland indicators – dragonflies, amphibians and reptiles. The cumulative numbers of dragonfly, amphibian and reptile species recorded at the Reserve are 44, 10 and 20 respectively. This shows that, with proper site design and management, the objectives of nature conservation, education and tourism can co-exist.







## HONG KONG HERBARIUM AND FLORA CONSERVATION

The Department manages the Hong Kong Herbarium, which is responsible for the systematic collection, identification and maintenance of plant specimens of Hong Kong's flora. During the year, the specimen collection of the Herbarium exceeded 41,000, more than 290 of which are type specimens, making the Herbarium regionally important.



the *Flora of Hong Kong*, covering 29 families, 305 genera and 593 species and varieties of plants, was completed. The series are available at the online Government Bookstore (<u>www.bookstore.gov.hk</u>).

In addition to being a resource centre for plant workers, the Herbarium aims to promote public awareness of local flora through organising guided visits and publishing educational materials.

## SITES OF SPECIAL SCIENTIFIC INTEREST

Sites of Special Scientific Interest (SSSI) may be land-based or aquatic sites, which are of special scientific interest because of their flora, fauna, geographical or geological features. During the year, the Department continued to patrol and monitor the conditions and scientific values of all SSSIs. Where warranted, the Department also carried out appropriate habitat management work at some SSSIs to maintain or enhance their scientific value. For instance, Mikania control was conducted at A Chau SSSI to improve the conditions of the trees there so as to provide a suitable site for egrets and herons to nest. Butterfly host plants were planted at Fung Yuen Valley SSSI to enhance the butterfly habitat. The Department also continued to review the status of SSSIs and identify new sites suitable for SSSI listing or make proposals for de-listing those sites no longer deserving the SSSI status due to changes in circumstances over time after their listing.

## **CONTROL OF MIKANIA**

Mikania (*Mikania micrantha*) is an exotic climber which grows rapidly in open and disturbed areas, such as roadsides and derelict land. The overgrowth of Mikania causes



damage to other plants by cutting out light and smothering them. Since Mikania seldom grows in the shade, it does not result in any adverse impact on established woodlands with large trees and a close canopy.

To prevent the proliferation of Mikania in any sites with conservation value, the Department continued to clear the plant when it was found in country parks, special areas and SSSIs. Besides mechanical weeding, habitat management control was applied on a trial basis. The department has also conducted field

study to explore the feasibility of controlling Mikania with biological agents.

In addition, the Department has prepared the Nature Conservation Practice Note "Clearing Mikania" which provides technical guidance to relevant government departments and landscape contractors responsible for the clearance of Mikania. The Department has also set up a <u>website on Mikania</u> for the public.

## **CONTROL OF WILD MONKEYS**

The wild monkey population in Hong Kong has been increasing in recent years and has caused public concern. To control the unnatural population increase in the long term, the Department has stepped up the field trial of contraceptive treatment. In 2008-09, the Department carried out such treatment on 429 monkevs. The Department has also strengthened the enforcement of feeding ban in specific country parks to minimise monkey nuisance to visitors. During the year, a total of 158 country park visitors were prosecuted for unauthorised feeding of wild monkeys.







# **Country and Marine Parks**

## WORK OF THE COUNTRY AND MARINE PARKS BRANCH

The objectives of the branch are:

- To conserve the natural environment through the identification, designation and management of suitable areas as country parks, special areas, marine parks and marine reserves;
- To conserve important marine and terrestrial fauna and flora, such as the Chinese white dolphins, finless porpoises, coral communities, birds, mammals, butterflies and dragonflies;
- To promote nature appreciation through publicity and educational activities and the provision of suitable facilities.



## **COUNTRY AND MARINE PARKS**

To conserve the countryside, by March 2009, 44,004 hectares (about 40 % of Hong Kong's total land area) had been designated as country parks and special areas. The Department continued to manage all 24 country parks and 17 special areas for conservation, recreation, education and tourism. Hiking trails, nature trails, barbecue and picnic sites, camp sites and visitor centres were provided in the country parks, drawing some 12.4 million visitors in 2008-09.

The Department also continued to manage marine parks and marine reserves for conservation, recreation, education and scientific studies. There are currently four marine parks and one marine reserve, covering 2,430 hectares. They comprise scenic coastal areas, seascapes and important marine habitats with interesting marine fauna and flora, providing ideal opportunities for diving, snorkelling, canoeing and underwater photography. Some 220,500 visitors to marine parks were recorded in 2008-09.



## LANTAU NORTH (EXTENSION) COUNTRY PARK

The Lantau North (Extension) Country Park, designated on 7 November 2008, covers a total area of about 2,360 hectares to the north, north-east and east of the existing Lantau North Country Park. It is largely mountainous and comprises upland valleys covered with natural woodland and unspoiled stream courses, forming a scenic backdrop to Tung Chung New Town. The area has high conservation and landscape value. The new country park aims to provide comprehensive protection to the natural resources in the area that is compatible with the development vision for Lantau. Native tree species will be planted at eroded areas for ecological enhancement and country park facilities will be installed at suitable locations for recreation purpose.

## HILL FIRES

During the year, 49 hill fires occurred over an area of 501 hectares with 76,000 trees damaged within or adjacent to country parks. The number of hill fires was similar to that of the past two years. However, there were a few major fires in Tai Lam Country Park, Pat Sin Leng Country Park and Lantau South Country Park. Rehabilitation planting programme in areas damaged by hill fires and various fire prevention measures have been implemented.

## **TREE PLANTING**

Some 900,000 seedlings were planted in 2008-09, similar to the amount planted in 2007-08. Large scale tree planting was carried out in Tai Lam Country Park to rehabilitate the damage caused by the extensive hill fire in late 2006. Another 150,000 seedlings were planted in the new Lantau North (Extension) Country Park to establish more woodland on the island.

To enrich local plant diversity, the Department continued to produce and plant seedlings of native tree species. Major native species planted included *Aquilaria sinensis*,



*Castanopsis fissa, Celtis sinesis, Gordonia axillaris, Liquidambar formosana, Machilus chekiangensis, Machilus pauhoii* and *Schima superba*. Among all seedlings planted, 66% were native species.

Seedlings of uncommon species like *Aphananthe cuspidata*, various *Camellia* species, *Keteleeria fortunei*, *Nauclea officinalis* and *Pyrus calleryana* as well as seedlings of tree species that were not readily available in the market, such as *Machilus chekiangensis* and *Machilus pauhoi*, were produced in the Tai Tong Nursery for planting in country parks.



## **Lotus Pond**

The Lotus Pond of about 900 square metres in the Lions Nature Education Centre in Sai Kung opened in 2008 summer. Its weir construction works commenced in early 2007, followed by construction of footpath, viewing platform, fencing and boardwalk, and lotus planting. The Lotus Pond is the first of its kind in country park's history of recreational development. The roadway and railings are made of recycled materials of earth tone colour, blending nicely with the natural environment. The pond attracts wildlife and has a self-sustaining eco-system. With its barrier-free setting, the green attraction becomes popular amongst all kinds of visitors.

## **Ecological Enhancement**

As in previous years, efforts were made to enhance the diversity of flora and fauna in country parks. For instance, seedlings of native species were planted within exotic plantation woodlands to enrich the species diversity and ecological value. Besides, a piece of abandoned farm land at Tai Lam Country Park was converted into the Tai Lam Eco-Garden which comprises fern garden, butterfly garden, insectivorous and other interesting plants and freshwater habitats to attract a wide range of wildlife and to enrich the species diversity of the park. It serves to raise public understanding on nature conservation.







With the increasing popularity of marine parks, a number of measures were taken to address problems arising from the increase in visitors. These included increased patrols, with volunteers assigned to advise visitors of codes to observe during their visits, the arrangement of guided activities and the publication of educational materials. Law enforcement action was also taken to combat illegal activities.

In May 2007, Coral Beach of the Hoi Ha Wan Marine Park was closed for the purpose of allowing damaged coral to recover. It reopened in November 2008.

## NATURE CONSERVATION EDUCATION

#### **Nature Appreciation Activities**

The Department continued to offer schools guided tour programme – "Nature Appreciation – Practice" in all country parks that can be reserved through online booking system. Guided tours for the public were also provided at the Ngong Ping Nature Centre and the Aberdeen Country Park Tree Centre. The Aberdeen Country Park Tree Centre, the first thematic education centre featuring trees in country parks, opened in April 2008. The centre features many interesting aspects of trees, with a huge banyan tree model to help visitors understand different parts of a tree. In 2008-09, over 800 guided tours were conducted by country park staff for over 10,000 participants.



#### **Geo-conservation Activities**

To promote geo-conservation to the public, the Department conducted a series of geoconservation activities during the year. These included the "Eight Geo-Wonders of Hong Kong - Geo-conservation Campaign" in September 2008, a rock appreciation hiking event held in Sai Kung in December 2008, and a series of public guided geo-tours – Geo Wonders Hike held from February to April 2009. The geotours covered six geo-landmarks in Hong Kong - East Dam of High Island Reservoir, Ma Shi Chau, Ngong Ping (Lantau), Shek O, Tung Ping Chau and Bride's Pool. The campaign drew over 7,000 participants.



To promote geo-education in schools, the Department offered a series of training workshops for both primary and secondary school teachers. These workshops included field trips to East Dam of High Island Reservoir, seminars on geo-



diversity and geo-conservation in Hong Kong as well as a workshop on the use of a geo-education kit - "Rock Classroom" produced by the Department. Over 200 teachers participated in these activities.

#### School Visits

During the year, country park wardens conducted 70 school visits to kindergartens to promote nature appreciation through experience sharing and games. The programme covered more than 5,000 kindergarten students.

#### Marine Conservation Education Programme

The Department organised a variety of marine conservation education activities targeting various sectors of the community. During the year, we organised 175 public ecotours, 14 public seminars, 3 beach cleanup activities, 31 school lectures, 74 exhibitions and 28 other kinds of educational activities, benefiting over 147,000 participants.

The award presentation ceremony of the "Portraits of Marine Life - Art Competition" was held at the Hong Kong Central Library on 7 February 2009. The competition was very well received with some 7,000 entries, reflecting people's love for the ocean and marine life. The award-winning paintings were exhibited at the Hong Kong Central Library and other public venues.



#### LAW ENFORCEMENT



Park wardens patrol country parks and special areas on a regular basis to provide visitor services and to enforce the Country Parks Ordinance and related legislation. In 2008-09, 798 offenders were prosecuted or given a fixed penalty notice with fines totaling \$801,710. Statistics are at Appendix 12. Under the Fixed Penalty (Public Cleanliness Offences) Ordinance (Cap 570), a total of 341 offenders were given a fixed penalty notice for littering or spitting; 25 offenders were charged with unauthorised possession of protected plants or damaging plants; while 6 people were prosecuted for

illegal use of fire in the countryside or a country park. Park wardens also conducted frequent special operations in the country parks, such as searching for illegal animal traps, visiting villages for the promotion of fire prevention and assisting the police in search-andrescue exercises. Regular joint operations with the Police were undertaken to combat crimes, such as illegal felling of Buddhist Pines and Incense Trees.

In our marine parks and reserves, wardens patrol on a daily basis, paying special attention to any illegal fishing activities and other offences. Close liaison is also maintained with the Marine Police and the Fisheries Authority of Shenzhen to combat illegal fishing by Mainland fishermen in marine parks. Wardens give advice or warnings to visitors and institute prosecutions when necessary. In 2008-09, 116 prosecutions were instituted with fines totaling \$133,100.

#### MARINE CONSERVATION

#### **Reef Check**

The Department coordinated the annual Reef Check, in collaboration with the Reef Check Foundation. During the year, 34 coral sites were surveyed with the assistance of over 400 volunteer divers. Twenty-three of the total 34 coral sites recorded high coral cover (i.e. more than 50%) and the growth of corals at all sites was stable. Results of the Reef Check were publicised to enhance public awareness of the current status of our marine environment and to seek the public's cooperation in protecting our precious marine resources. The findings also provided the Department with important information on the health status of corals so that appropriate action could be taken to protect them.





#### **Conservation of Corals**

Specially-designed marker buoys were installed at Ung Kong Wan, Sharp Island and Port Island for better protection of corals from anchoring damage. Regular sea patrols and underwater ecological surveys were also conducted to monitor the effectiveness of the coral marker buoys in these areas. The results to date are encouraging. There has been an overall increase in live coral cover in the marker area and damaged corals have shown signs of recovery.

The roving "Photo and Video Exhibition on Coastal and Marine Life of Hong Kong" was conducted at various venues during the year. The aim of this exhibition was to promote the beauty and diversity of coastal and marine environment and enhance the public's understanding of the importance of marine conservation.

#### **Conservation of Marine Mammals**

There are about 1,300 to 1,500 Chinese white dolphins living in the Pearl River Estuary. About 200 dolphins of this population live in the western waters of Hong Kong around Lantau Island, Tuen Mun, Sha Chau and Lung Kwu Chau. The Department has been implementing a Conservation Programme for the Chinese white dolphin since 2000. Tasks include habitat protection and management, long-term of population, monitoring the dolphin investigation of dolphin stranding, promotion of



public awareness of dolphin conservation, and liaison with the Guangdong authorities to exchange information on the conservation of the species. Population data analysis indicates that the abundance of dolphins in Hong Kong waters has stayed generally stable over the years.

Every reported dolphin stranding in Hong Kong is investigated by the Department in collaboration with the Ocean Park Conservation Foundation. Tissue samples from the carcasses are collected for further studies. The Department also organises exhibitions and seminars as well as distributes posters and leaflets to promote conservation awareness, and publicises the code of conduct on dolphin watching and the dolphin stranding hotline. Through these efforts, the public's understanding of marine mammals has gradually deepened.

#### **ENVIRONMENTAL IMPACT ASSESSMENT STUDIES**

The Department regularly provides comments and advice on development proposals and



projects that might affect the marine environment. We also comment on EIA reports from a marine-ecology point of view. During the year, examples of projects studied included the development of Kai Tak Cruise Terminal, the Hong Kong-Zhuhai-Macao Bridge Hong Kong boundary crossing facilities, upgrading of Pillar Point Sewage Treatment Work, the Harbour Area Treatment Scheme, and the development of Offshore Wind Farms.





編農自然管理署年報 Aertaulture, Fisheries and Conservation Department Report 2003-2009



- 1. <u>SUMMARY OF AGRICULTURAL PRODUCTION ESTIMATED QUANTITIES AND VALUE</u> 2006-08
- 2. <u>FRESH FOOD PRODUCTION, EXPORTS, IMPORTS, RE-EXPORTS AND CONSUMPTION</u> 2006-08
- **3.** <u>AGRICULTURAL LAND UTILISATION 2006-08</u> (Including land outside rural Outline Zoning Plans) (hectare)</u>
- 4. NUMBER OF FISHING VESSELS BY TYPE IN 2008
- 5. FISH CULTURE ZONES
- 6. <u>IMPORT CONTROL, LIVESTOCK QUARANTINE, EXPORT CERTIFICATION STATISTICS</u> 2008-09
- 7. PLANT IMPORT CONTROL STATISTICS 2008-09
- 8. PESTICIDE CONTROL STATISTICS 2008-09
- 9. LEGISLATION ADMINISTERED BY AFCD
- 10. PROSECUTIONS MADE UNDER LEGISLATION ADMINISTERED BY AFCD 2008-09
- 11. COUNTRY PARKS, SPECIAL AREAS, MARINE PARKS AND MARINE RESERVE
- 12. PROSECUTIONS IN RELATION TO OFFENCES IN COUNTRYSIDE 2008-09
- 13. PUBLICATIONS FOR FREE DISTRIBUTION TO THE PUBLIC 2008-09
- 14. AFCD WHOLESALE MARKETS THROUGHPUT AND VALUE 2006-08
- **15.** ORGANISATION CHART OF THE AGRICULTURE, FISHERIES AND CONSERVATION DEPARTMENT (AS AT MARCH 31, 2009)
- **16.** <u>ESTABLISHMENT OF AGRICULTURE, FISHERIES AND CONSERVATION DEPARTMENT AS</u> <u>AT MARCH 31, 2009</u>
- 17. STATUTORY/ADVISORY COMMITTEES AND BOARDS
- 18. STATISTICS ON CO-OPERATIVE SOCIETIES AS AT MARCH 31, 2009
- 19. STATISTICS ON CREDIT UNIONS AS AT MARCH 31, 2009
- 20. ENDANGERED SPECIES CONTROL STATISTICS 2008-09











#### Appendix 1 SUMMARY OF AGRICULTURAL PRODUCTION - ESTIMATED QUANTITIES AND VALUE# 2006-08

ltere	11	2006		2007		2008	
Item	Unit	Quantity	\$'000	Quantity	\$'000	Quantity	\$'000
Сгор							
Flowers*			182,337		216,810		176,214
Fruits	Tonne	448	3,106	1,617	11,650	1,395	12,985
Vegetables	Tonne	21,200	71,797	18,900	72,500	16,400	73,785
Field Crops	Tonne	190	344	200	363	210	605
Sub-total:			257,584		301,323		263,589
Livestock							
Pigs	Head	381,204	584,799	269,810	487,260	87,240	207,665
Cattle	Head	13	100	35	289	6	84
Fresh Milk	Tonne	135	1,885	106	1,485	48	666
Sub-total:			586,784		489,034		208,415
Poultry							
Chickens	Head	9,154,700	329,244	7,273,100	295,187	4,662,032	208,992
Hatching Hen Eggs	Thousand	3,446	6,892	3,439	6,879	2,734	5,469
Table Hen Eggs	Thousand	137	224	131	211	160	258
Pigeons	Pair	85,610	3,148	21,770	837	0	0
Sub-total:			339,508		303,114		214,719
Grand Total			1,183,876		1,093,471		686,723

# Estimated value of production was calculated using farm-gate prices i.e. the prices received by farmers
\* Including pot plants and blossom trees









Appendix 2

FRESH FOOD �V PRODUCTION, EXPORTS, IMPORTS, RE-EXPORTS AND CONSUMPTION 2006-08

Item	Source	2006	2007	2008
FRESH VEGETABLES (Tonne)	Local production Exports Imports Re-exports Consumption Contribution by local production	21,200 0 532,440 28,890 524,750 4.0%	18,900 0 639,720 9,960 648,660 2.9%	16,400 0 645,720 7,270 654,850 2.5%
LIVE PIGS (Head)	Local production (Head) (Dressed weight in tonne) Exports Imports Re-exports Consumption (Dressed weight in tonne) Contribution by local production	381,200 32,780 0 1,590,270 0 142,200 23.1%	269,810 23,200 0 1,503,210 0 126,630 18.3%	87,240 7,500 0 1,494,570 0 110,330 6.8%
LIVE POULTRY (Tonne)	Local production Exports Imports Re-exports Consumption Contribution by local production	17,270 0 13,860 0 31,130 55.5%	12,830 0 15,240 0 28,080 45.7%	8,520 0 10,140 0 18,660 45.7%
MARINE FISH (Live / Fresh / Frozen) (Tonne)	Local production Exports Imports Re-exports Consumption Contribution by local production	38, 530 430 117,820 53,580 102,340 37.6%	33,440 130 103,900 61,630 75,580 44.2%	39,020 150 99,080 28,120 109,830 35.4%
FRESHWATER FISH (Live / Fresh / Frozen) (Tonne)	Local production Exports Imports Re-exports Consumption Contribution by local production	1,940 0 38,260 2,070 38,130 5.1%	1,930 0 36,660 2,110 36,480 5.3%	2,270 0 43,470 2,680 43,060 5.3%







X Close

#### Appendix 3 AGRICULTURAL LAND UTILISATION 2006-08 (Including land outside rural Outline Zoning Plans) (hectare)

Year	Market garden crops#	Field Crops	Orchard	Fish Pond*	Abandoned / fallow	Total
2006	510	20	280	1,100	4,180	6,090
2007	500	20	280	1,100	4,190	6,090
2008	496	22	280	1,100	4,188	6,086

# vegetables and flowers

\* including ponds that have been resumed but not yet filled







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#### Appendix 4 NUMBER OF FISHING VESSELS BY TYPE IN 2008

Type of vessel	Quantity
Pair Trawler	538
Stern Trawler	132
Shrimp Trawler	363
Hang Trawler	44
Gill Netter	204
Long Liner	113
Hand Liner	60
Purse Seiner	92
Fishing Sampan	2,208
TOTAL	3,754



漁農自然語理書年期 Agriculture, Fisheries and Conservation Department Report 2008-2009

# Appendices

## X Close

Appendix 5 FISH CULTURE ZONES 2 - ᠵ 5 3 25 28 a 10 New Territories R ŝ Kowloon Б Hong Kong Island Lantau Island Do. Es 31 5 20

1	Sha Tau Kok	14	Tai Tau Chau
2	Ap Chau	15	Kai Lung Wan
3	Kat O	16	Kau Sai
4	O Pui Tong	17	Ma Nam Wat
5	Sai Lau Kong	18	Ро Тоі О
6	Wong Wan	20	Ро Тоі
7	Tap Mun	21	Sok Kwu Wan
8	Kau Lau Wan	22	Lo Tik Wan
9	Sham Wan	24	Ma Wan
10	Lo Fu Wat	25	Yim Tin Tsai
11	Yung Shue Au	26	Cheung Sha Wan
12	Leung Shuen Wan	28	Yim Tin Tsai (East)
13	Tiu Cham Wan	29	Tung Lung Chau









**Appendix 6** 

#### IMPORT CONTROL, LIVESTOCK QUARANTINE, EXPORT CERTIFICATION STATISTICS 2008-09

#### **Certificates, Permits, Authorisations and Licences Issued**

Certificates Issued	
- Official Animal Health Certificates (for export of live animals)	1,411
- Official endorsement of Animal Health Certificates (for export of live animals)	2,260
- Sanitary Certificates (for export of animal products)	670
Permits/Licences Issued	
- Permits (Import/Transit)	4,921
- Authorisations (Import/Transit) (Permits for multiple use were introduced to replace the single use permits)	89
- Quarantine Centre Licences	0
- Animal Trader Licences	418
- Exhibition Licences	57
- Temporary Exhibition Permits	17
- Boarding Establishment Licences	26
- Riding Establishment Licences	10
- Dairy Licences	1

#### Inspections

Imported animals inspected at air/sea/land entry points	
- Breeding Pigs	1,456
- Day-old-chickens	1,873,010
- Dogs requiring quarantine	96
- Cats requiring quarantine	96
- Dogs exempted from quarantine	2,275
- Cats exempted from quarantine	1,057
- Imported Horses	536
- Horses for Equestrian Events of the XXIX Olympiad and XIII Paralympic Games	287
- Horses transhipped	323
Animals control and management	
- Stray dogs caught	8,447
- Dogs admitted for observation following biting incidents	620
- Prosecution cases	1,058

### **Enforcement Actions Taken**

Imported animals and plants inspected at air/sea/land entry points	
- Number of seized animals, birds, reptiles and plants, etc	10,053
- Seized animals, birds, reptiles and plants' parts/derivatives	5,268.72(kg)
- Number of voluntary surrender of animals, birds, reptiles and plants, etc	2,726
- Voluntary surrender of animals, birds, reptiles and plants' parts/derivatives	17.51(kg)
- Warnings issued	4
- Prosecutions	100








## Appendix 7 PLANT IMPORT CONTROL STATISTICS 2008-09

Documents Issued	
Plant Import Licences	1,836
Import Authorisations	722
Phytosanitary Certificates	1,655
Phytosanitary Certificates for Re-export	498
Inspections	
Number of imported consignments	1,383
Number of exported consignments	2,152
Confiscations	
Number of plants	3,557
Number of plant consignments	39
Live pests (number of consignments) - Crickets, butterflies pupae and grasshoppers	5



漁農自然護理署年載 Aericulture, Fisheries and Conservation Department Report 2003-2009



## X Close

## Appendix 8 PESTICIDE CONTROL STATISTICS 2008-09

Enforcement Summary		
Pesticide registration	Part I	6
	Part II	6
Pesticide licences issued	Part I	87
	Part II	22
Pesticide licences renewed	Part I	1,396
	Part II	286
Pesticide permits	Issued for re-export	3
	Issued for other purposes	0
	Extended for re-export	38
	Extended for other purposes	64
Pesticide import licences (Cap. 60) issued		2,908
Pesticide export licences (Cap. 60) issued		2,273
Premises inspections		3,397
Labels reviewed		279
General Summary		
Total number of Part I pesticides registered		190
Total number of Part II pesticides registered		314
Total number of Part I licencees		1,454
Total number of Part II licencees		300
Total number of permittees for re-export		20
Total number of permittees for other purpose	es	29



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#### Appendix 9 LEGISLATION ADMINISTERED BY AFCD

The Director of Agriculture, Fisheries and Conservation is currently the Director of Marketing, the Registrar of Co-operative Societies, the Registrar of Credit Unions and the Country and Marine Parks Authority. Authority under legislation is delegated, as appropriate, to various officers of the Department. The legislation under which the Department has statutory functions and responsibility is listed below:

Cap. 33 Cap. 96 Cap. 119 Cap. 133 Cap. 139 Cap. 167 Cap. 168 Cap. 169 Cap. 170	Co-operative Societies Ordinance Forests and Countryside Ordinance Credit Unions Ordinance Pesticides Ordinance Public Health (Animals and Birds) Ordinance Dogs and Cats Ordinance Pounds Ordinance Prevention of Cruelty to Animals Ordinance Wild Animals Protection Ordinance
Cap. 171	Fisheries Protection Ordinance
Cap. 207	Plant (Importation and Pest Control) Ordinance
Cap. 208	Country Parks Ordinance
Cap. 277	Agricultural Products (Marketing) Ordinance
Cap. 291	Marine Fish (Marketing) Ordinance
Cap. 353	Marine Fish Culture Ordinance
Cap. 421	Rabies Ordinance
Cap. 476	Marine Parks Ordinance
Cap. 490	Plant Varieties Protection Ordinance
Cap. 570	Fixed Penalty (Public Cleanliness Offences) Ordinance
Cap. 586	Protection of Endangered Species of Animals and Plants Ordinance
Cap. 1067	J.E. Joseph Trust Fund Ordinance
Cap. 1080	Kadoorie Agricultural Aid Loan Fund Ordinance
200. 2000	







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Appendix 10 PROSECUTIONS MADE UNDER LEGISLATION ADMINISTERED BY AFCD 2008-09

Month/ Ordinance	Cap. 96	Cap. 133	Cap. 139	Cap. 167	Cap. 169	Cap. 170	Cap. 171	Cap. 207	Cap. 208	Cap. 291	Cap. 353	Cap. 421	Cap. 476	Cap. 570	Cap. 586	Sub-total	Fines (\$)	Estimated Value of goods confiscated (\$)
April / 2008	0	0	14	1	0	0	0	0	25	3	0	40	15	29	17	144	222,150	24,501
Мау	5	0	10	1	0	23	0	1	27	4	0	91	12	47	17	238	196,170	638,641
June	0	2	0	7	0	10	0	0	15	2	0	73	5	10	9	133	148,900	1,769,221
July	4	0	7	2	3	16	0	0	14	1	0	109	9	19	9	193	202,150	798,086
August	1	1	3	2	1	10	0	0	18	2	0	40	4	13	3	98	96,950	13,445
September	0	0	1	7	0	5	0	0	13	2	0	106	24	43	0	201	145,320	6,081
October	1	0	3	4	0	20	0	0	24	1	0	159	16	31	5	264	173,650	6,151
November	1	0	5	3	0	12	0	0	3	1	0	74	8	40	7	154	126,550	16,480
December	2	0	2	9	2	0	1	0	45	4	0	68	13	51	5	202	145,470	32,927
January / 2009	2	0	1	2	0	26	1	0	24	0	0	33	3	18	6	116	191,650	60,717
February	1	0	4	7	1	20	0	0	23	0	1	142	3	15	1	218	144,800	21,500
March	2	0	3	10	0	27	1	1	40	2	0	94	10	25	8	223	157,900	4,886
Total	19	3	53	55	7	169	3	2	271	22	1	1,029	122	341	87	2,184	1,951,660	3,392,636









Appendix 11 COUNTRY PARKS, SPECIAL AREAS, MARINE PARKS AND MARINE RESERVE











#### Appendix 12 PROSECUTIONS IN RELATION TO OFFENCES IN COUNTRYSIDE 2008-09

Cap.	Sect.	Reg.	Nature of Offence	No. of Persons Involved*	No. of concluded prosecution cases**	Total Fines***
96	16(1)(a)		Illegal lighting of fire in countryside	5	5	\$2,700
96	21(a)		Illegal cutting of plant	2	1	\$3,000
96	21(d)		Illegal felling of plants in countryside	12	16	\$22,400
170	13(1)(a)		Illegal entry in restricted area	11	11	\$5,500
170	17C(3)		Illegal feeding of wild animal	158	141	\$71,200
208	26	4(1)	Illegal possessing/driving of vehicle/bicycle	240	239	\$82,910
208	26	7(1)(a)	Illegal possession of cooking apparatus	0	1	\$450
208	26	7(1)(c)	Illegal use of fire	1	5	\$2,100
208	26	8(1)(a)	Illegal picking of plants	11	10	\$6,000
208	26	8(1)(b)	Illegal digging of soil	2	4	\$1,650
208	26	9(1)(b)	Illegal hawking	1	1	\$300
208	26	10(1)(a)	lllegal display of sign / notice / poster / banner / advertisement within Country Park	1	1	\$1,200
208	26	11(2)(b)	Operating power driven model within Country Park without permit	4	4	\$2,000
208	26	11(3)	Illegal camping within Country Park or special area	9	17	\$6,600
208	26	12(1)(c)	Littering	337	383	\$589,200
208	26	12(1)(e)	Spitting	4	3	\$4,500
Total:				798	842	\$801,710

(i) Number of Fixed Penalty Notices issued (littering offence under regulation 12(1)(c) of Cap. 208A) = 335
(ii) Number of Fixed Penalty Notices issued (spitting offence under regulation 12(1)(e) of Cap. 208A) = 4
(iii) Number of Fixed Penalty Notices processed (littering offence under regulation 12(1)(c) of Cap. 208A) = 381
(iv) Number of Fixed Penalty Notices processed (spitting offence under regulation 12(1)(c) of Cap. 208A) = 3
\* "No. of Persons involved" denotes persons prosecuted or given a fixed penalty notice in the year.

\*\* "No. of concluded prosecution cases" may include fixed penalty notices processed and cases carried forward from previous year(s) and does not include prosecution cases that still being processed at the end of the year.

\*\*\* "Total Fines" are fines of concluded prosecution cases and fixed penalty notices processed.







## Appendix 13 PUBLICATIONS FOR FREE DISTRIBUTION TO THE PUBLIC 2008-09

## Fact Sheets

Agriculture and Fisheries (Chinese & English versions) Country Parks and Conservation (Chinese & English versions) Code of Conduct for Dolphin Watching Activities (Bilingual) Hong Kong Wetland Park Factsheets (Factsheets 1 to 20) (Bilingual) Hong Kong Wetland Park Volunteer Programme (Bilingual)

## **Newsletters**

Newsletter on Controlled-Environment Greenhouse (Issues 25-27) (Bilingual) Hong Kong Biodiversity, Issue 16 (English version only) Hong Kong Wetland Park Newsletter Issue 11 (May 2008) (Bilingual) Hong Kong Wetland Park Newsletter Issue 12 (November 2008) (Bilingual) Hong Kong Wetland Park, Country Parks and Marine Parks e-newsletter (April/June/September/December 2008 and February/March 2009) (Bilingual)

## **Booklets/Pamphlets**

Use of Pesticides for Outdoor Mosquito Control (Revised version) (Chinese version only) Learn More about Organic Farming (Chinese version only) Local Organic Product Pick Your Own Guide 2009 (Chinese version only) Letter of Approval for Agricultural Structures - Application Guide (Chinese & English versions) Good Aquaculture Practices 1 - Feed management (Chinese version only) Good Aquaculture Practices 2 - Environmental management of mariculture (Chinese version only) Good Aquaculture Practices 3 - Environmental management of pondfish culture (Chinese version only) Good Aquaculture Practices 4 - Prevention of fish diseases (Chinese version only) Good Aguaculture Practices 5 - Fish fry health management (Chinese version only) Rodent Control Guide for Pest Control Personnel (Chinese version only) Protect Our Countryside, Prevent Hill Fire (Bilingual) Hiking on Lantau Country Trails (Chinese, English, Japanese & Korean versions) Hong Kong Landmarks (Bilingual) Venturing Hong Kong Country Parks series (Revised version) (Bilingual) Hong Kong Country Parks and Marine Parks (Bilingual) Conserve Hong Kong's Corals (Bilingual) Dangerous Marine Life of Hong Kong (Bilingual) Little Dolphin Missing Home (Bilingual) Getting to know Hong Kong's Dolphins and Porpoises (Chinese & English versions) Horse Shoe Crabs in Hong Kong (Bilingual) Chinese White Dolphins (Bilingual) "Portraits of Marine Life - Art Competition" Collection Booklet (Bilingual) "Portraits of Marine Life - Save the Marine Environment" Sketch Booklet (Bilingual) Watching Birds (Bilingual) Stop Feeding Wild Monkeys (Bilingual) Knowing the Butterflies (Bilingual) Meeting the Odonates (Bilingual) "Wetlands in my Eyes" Writing Competition (Chinese) Hong Kong Wetland Park Guidebook, 2nd Edition (English, Simplified Chinese & Traditional Chinese versions) The Young Ambassador Programme for Endangered Species Protection cum Guangdong-Hong Kong Endangered Species Protection Summer Camp (Chinese version only) Upstream - Downstream: Wetlands Connect Us All (Bilingual) Life in a Pond (Bilingual) Year of the Frog 2008 (Bilingual)

Cultural Festival (Bilingual) Quarantine Detector Dog Leaflet (Bilingual)

## **Books**

Enchanting Nature with Papercutting Art (Bilingual)

## **Leaflets**

Plant Quarantine - Introduction to Import Control (Revised version) (Bilingual) Farm Machinery and Equipment Lending Services (Chinese version only) Control of Striped Flea Beetles (Bilingual) Control of Melon Flies (Bilingual) Integrated Pest Management of Plant Pests (Chinese version only) Emergency Relief Fund (Chinese & English versions) Accredited Fish Farm Scheme (Bilingual) Accredited Fish - Jade Perch (Chinese version only) Accredited Fish - Grey Mullets (Chinese version only) Voluntary Registration Scheme for Local Pond Fish Farms (Chinese version only) Prevention of Avian Influenza - Bird Management (Bilingual) Do not keep backyard poultry (Bilingual) Tackling Red Imported Fire Ants (Chinese & English versions) Control of Mosquito Breeding Problem in Fish Ponds (Chinese version only) Safe Use of Larvicides in Agricultural Field (Chinese version only) Care for Our Trees (Bilingual) World Wetlands Day 2009 - Cultural Festival (Bilingual) World Wetlands Day 2009 - Wetland Kaleidoscope (Bilingual) Hong Kong Wetland Park Leaflet (English, Simplified Chinese & Traditional Chinese versions) Hong Kong Herbarium (Bilingual) The Traditional Uses of Plants (Bilingual) Gingers of Hong Kong (Bilingual) Native Camellias of Hong Kong (Bilingual) The Identity of Kiwifruit (Bilingual) The Five Most Poisonous Plants in Hong Kong (Bilingual) Stranglers (Bilingual) The Aristolochiaceous Plants in Hong Kong (Bilingual) Does Fig-plant have flowers? (Bilingual) Insectivorous Plants of Hong Kong (Bilingual) Magnolias in Hong Kong (Bilingual) The Autumn Leaves and the Hamamelidaceae of Hong Kong (Bilingual) Native Azaleas of Hong Kong (Bilingual) Plants named after Hong Kong (Bilingual) Turfgrass in Hong Kong (Bilingual) Common Ferns of Hong Kong (Bilingual) Syzygium in Hong Kong (Bilingual) Shing Mun Arboretum (Chinese & English versions) Web Site of the Hong Kong Herbarium (Bilingual) Endangered Species Protection (Bilingual) Protection of Endangered Species of Animals and Plants Ordinance (Bilingual) Protect Endangered Species - Traditional Chinese Medicines (Bilingual) Protect Endangered Species - Pet (Bilingual) Protect Endangered Species - Food (Bilingual) Protect Endangered Species - Personal Items and Tourist Souvenirs (Bilingual) Protect Endangered Species - Ornamental Plants (Bilingual) Protect Endangered Species - Marine Species (Bilingual) Protect Endangered Marine Species (Bilingual) Going Abroad? Don't Bring Back Souvenirs of Endangered Species Without a Licence (Bilingual) Wild animal calls (Chinese version only) Prevention of Hill Fire During Grave Sweeping (Bilingual) Code of Practice for Mountain Bike Tracks in Country Park (Bilingual) Photo Identification Key for Plants of Fung Shui Wood (Bilingual) Good Fishing Practices (Chinese version only) Hoi Ha Wan Marine Park - Important Notes to Visitors (Chinese & English versions) Tung Ping Chau Marine Park Inter-tidal Rocky Shore Life (Chinese & English versions) Hoi Ha Wan Marine Park (Bilingual) Yan Chau Tong Marine Park (Bilingual) Sha Chau and Lung Kwu Chau Marine Park (Bilingual) Tung Ping Chau Marine Park (Bilingual) Cape D'Aguilar Marine Reserve (Bilingual) Marine Parks and Marine Reserve (Bilingual)

Seaweeds in Tung Ping Chau Marine Park (Bilingual) Hoi Ha Wan Marine Park Ecotour (Bilingual) Portraits of Marine Life - Art Competition (Bilingual) Marine benthic communities in Hong Kong (Chinese & English versions) Reference collection of Hong Kong stony corals (Chinese & English versions) Getting to know more on coral protection (Bilingual) Visiting coral areas - Codes for SCUBA divers and snorkelers (Bilingual) Be aware of the Effects of Fish Nets to Chinese White Dolphin and Finless Porpoise (Chinese version only) Don't anchor in "No Anchoring Area" of Port Island (Bilingual) Don't anchor in "No Anchoring Area" of Sharp Island (Bilingual) Don't anchor in "No Anchoring Area" of Ung Kong Wan (Bilingual) Wild pig in Hong Kong (Chinese version only)

## **Posters**

Requirements for Importation of Animals and Birds (Bilingual) Accredited Fish Farm Scheme Products (Bilingual) Voluntary Registration Scheme for Local Pond Fish Farms (Chinese version only) Prevent Avian Flu - Apply Proper Biosecurity Measures (Chinese version only) Protect yourself from avian influenza, stop keeping backyard poultry (Bilingual) Do not Release Cage-Reared Birds (Bilingual) Prevent Avian Flu - Be Wary of Wild Birds (Bilingual) Stay Away from Red Fire Ants (Bilingual) **Discovering Ramsar (Bilingual)** Protect Endangered Species - General (Bilingual) Protect Endangered Species - Controlled Medicines (Bilingual) Protect Endangered Species - Protected Pets (Bilingual) Protect Endangered Species - Controlled Food (Bilingual) Protect Endangered Species - Wild Animals and Plants Souvenirs (Bilingual) Protect Endangered Species - Protected Plants (Bilingual) Protect Endangered Species - Marine Species (Bilingual) Protect Endangered Marine Species (Bilingual) Licence is required for importation and exportation of Orchids (Chinese version only) The Young Ambassador Programme for Endangered Species Protection (Chinese version only) Prevention of Hill Fires During Grave Sweeping (Bilingual) Code of Practice for Mountain Bike Tracks in Country Park (Bilingual) Conserve Hong Kong's Corals (Bilingual) Do not collect or damage corals (Bilingual) Hard Corals of Hong Kong (Bilingual) Stranded Marine Mammals (Bilingual) Hoi Ha Wan Marine Park - Visitor's Code of Conduct (Chinese version only) Tung Ping Chau Marine Park - Visitor's Code of Conduct (Chinese version only) Prohibition of Collection of Marine Organisms or Their Parts in Marine Parks (Bilingual) The Underwater World in Marine Parks of Hong Kong (Marine Fishes) (one set of 5) (Bilingual) The Underwater World in Marine Parks of Hong Kong (Crabs and other Marine Invertebrates) (one set of 3) (Bilingual) Portraits of Marine Life - Art Competition (Bilingual) Marine benthic communities in Hong Kong (Bilingual) Don't anchor in "No Anchoring Area" of Port Island (Bilingual) Don't anchor in "No Anchoring Area" of Sharp Island (Bilingual) Don't anchor in "No Anchoring Area" of Ung Kong Wan (Bilingual) Report Illegal Felling of Trees (Bilingual) Visiting coral areas - Codes for SCUBA divers and snorkelers (Bilingual) World Wetlands Day 2009 - Wetland Kaleidoscope (Bilingual) World Wetlands Day 2009 - Cultural Festival (Bilingual) Year of the Frog (Bilingual) Easter Promotion (Bilingual) Treasure Hunt Game (Bilingual) Wetland Animal Star of the Month - Fiddler Crab (Bilingual) Please Do Not Bring In Plant with Pest (Bilingual)

#### **Bookmarks**

Mangroves Bookmark (one set of 3) (Bilingual) Hard Corals of Hong Kong (one set of 20) (Bilingual) Exploration thru Nature Bookmark (Chinese Only) Hong Kong Wetland Park Bookmark (one set of 30) (Bilingual) Marine Parks Bookmark (one set of 7) (Bilingual) Marine Parks Visitor Code Magnetic Bookmark (one set of 4) (Chinese Only)

#### Field Guides

Mangroves Habitats in Marine Parks of Hong Kong Field Guide (Bilingual)

## Souvenir Cards

Marine Parks Visitor Code Card (one set of 4) (Bilingual)

## Audio/ Video CDs

Hong Kong Red Tide Information Network (Bilingual) Encyclopedia of Hong Kong Dolphins (Chinese & English versions) Protect Endangered Species (Bilingual) Hong Kong Wetland Park - An Introductory Video Guide (Cantonese, Putonghua, English, Japanese & Korean versions) Hong Kong Marine Parks DVD

## **Calendars**

Protect Endangered Species Year Planner 2009 (Bilingual) Hong Kong Wetland Park Dragonfly Calendar 2009 (Bilingual) Hong Kong Marine Parks Calendar 2009 (Bilingual)

## **Stickers**

Codes for visiting coral areas for the public (Bilingual) Codes for visiting coral areas for divers (Bilingual) Codes for visiting coral areas for boaters (Bilingual)

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## 編農自然證理書年時 Appliculture, Fisheries and Conservation Department Report 2008-2009

X Close

Appendix 14 AFCD WHOLESALE MARKETS THROUGHPUT AND VALUE 2006-08

	Cheu	ng Sha	Wan Whol	lesale I	Food Mark	et		Western Wholesale Food Market								a Wan ary Poultry et	North District Temporary Wholesale Market for Agricultural Products		Total		
Year	Vegetable		Vegetable		Freshw Fish		Egg	I	Fruit	t	Freshw Fish		Egg		Vegeta	ble	Poult	ry	Vegetal	ole	
	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Tonne	Value \$M	Quantity Value Tonne \$M		
2006	131,948	717	31,917	582	30,871	210	104,338	958	14,348	251	22,466	134	34,388	155	29,969	687	77,285	348	477,530 4,042		
2007	124,241	887	34,019	598	33,071	283	100,975	916	15,547	245	16,254	143	70,843	476	27,986	761	85,105	433	508,041 4,742		
2008	159,652	1,356	31,287	703	35,945	350	96,598	939	15,140	249	21,081	203	65,987	553	18,665	558	80,859	497	525,214 5,408		



## Appendices

X Close

Appendix 15 ORGANISATION CHART OF THE AGRICULTURE, FISHERIES AND CONSERVATION DEPARTMENT (AS AT MARCH 31, 2009)







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#### Appendix 16 ESTABLISHMENT OF AGRICULTURE, FISHERIES AND CONSERVATION DEPARTMENT AS AT MARCH 31, 2009

Rank	Number
Directorate Staff	
Director	1
Deputy Director	1
Assistant Director	5
Professional Staff	
Senior Agricultural Officer	5
Agricultural Officer	12
Senior Fisheries Officer	7
Fisheries Officer	20
Senior Forestry Officer	11
Forestry Officer	33
Senior Veterinary Officer	6
Veterinary Officer	12
Senior Engineer	1
Engineer	4
Geotechnical Engineer	1
Land Surveyor	1
Technical staff	
Senior Co-operative Officer I	1
Senior Co-operative Officer II	1
Senior Co-operative Supervisor	2
Co-operative Supervisor I	3
Co-operative Supervisor II	11
Senior Field Officer	53
Field Officer I	153
Field Officer II	151
Senior Fisheries Supervisor	7
Fisheries Supervisor I	19
Fisheries Supervisor II	26
Fisheries Craft Technician I	4
Fisheries Technical Officer I	10
Fisheries Technical Officer II	9
Veterinary Technologist	5
Veterinary Laboratory Technician I	13

Veterinary Laboratory Technician II	25
Agricultural Laboratory Technician I	1
Senior Field Assistant	73
Field Assistant	324
Senior Technical Officer (Architectural)	1
Technical Officer (Architectural)	3
Senior Technical Officer (Cartographic)	1
Technical Officer (Cartographic)	5
Technical Officer (Civil)	2
Senior Technical Officer (Geotechnical)	1
Technical Officer (Geotechnical)	2
Senior Survey Officer (Engineering)	1
Survey Officer (Engineering)	3
Inspector of Works	4
Assistant Inspector of Works	4
Clerk of Works	2
Assistant Clerk of Works	2
Works Supervisor I	6
Works Supervisor II	7
Administrative Support	
Chief Executive Officer	1
Senior Executive Officer	3
Executive Officer I	4
Executive Officer II	3
Senior Official Languages Officer	1
Official Languages Officer I	1
Official Languages Officer II	2
Senior Systems Manager	1
Systems Manager	1
Analyst/Programmer I	1
Senior Treasury Accountant	1
Treasury Accountant	1
Accounting Officer I	1
Accounting Officer II	1
Supplies Officer	1
Assistant Supplies Officer	1
Supplies Supervisor II	4
Senior Clerical Officer	5
Clerical Officer	12
Assistant Clerical Officer	39
Clerical Assistant	53
Office Assistant	10
Senior Personal Secretary	1
Personal Secretary I	5
Personal Secretary II	8
Supervisor of Typing Services	1
Typist	6
Calligraphist	2

Confidential Assistant	2
Minor Staff	·
Photographer I	1
Photoprinter II	1
Senior Artisan	6
Artisan	175
Laboratory Attendant	10
Chainman	6
Forest Guard	8
Tracer	2
Special Driver	4
Motor Driver	35
Model Pay Scale Staff	· · · · ·
Workman I	282
Workman II	145
Supplies Attendant	1
Car Park Attendant II	2
Property Attendant	1
TOTAL:	1 906

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漁農自然證理署年報 Agriculture, Fisheries and Conservation Department Report 2003-2009





#### Appendix 17 STATUTORY/ADVISORY COMMITTEES AND BOARDS

- (1) Advisory Committee on Agriculture and Fisheries
- (2) Country and Marine Parks Board
- (3) Endangered Species Advisory Committee
- (4) Marketing Advisory Board
- (5) Fish Marketing Advisory Board
- (6) Animal Welfare Advisory Group
- (7) Fisheries Development Loan Fund Advisory Committee
- (8) Kadoorie Agricultural Aid Loan Fund Committee
- (9) Marine Fish Scholarship Fund Advisory Committee
- (10) Agricultural Products Scholarship Fund Advisory Committee
- (11) Veterinary Surgeons Board
- (12) Dogs and Cats Classifications Board

#### Sub-committees formed under the Statutory/Advisory Committees and Boards

- (A) Under the Advisory Committee on Agriculture and Fisheries :
  - (i) Aquaculture Sub-committee
  - (ii) Capture Fisheries Sub-committee
  - (iii) Crop Farming Sub-committee
  - (iv) Livestock Sub-committee
  - (v) Marketing Sub-committee
- (B) Under the Country and Marine Parks Board :
  - (i) Country Parks Committee
  - (ii) Marine Parks Committee
  - (iii) Public Relations Committee
- (C) Under the Veterinary Surgeons Board :
  - (i) Registration Committee
  - (ii) Ethics Committee
  - (iii) Preliminary Investigation Committee



漁農自然體理譬伊蘇 Aericulture, Fisheries and Conservation Department Report 2003-2009





## Appendix 18 STATISTICS ON CO-OPERATIVE SOCIETIES AS AT MARCH 31, 2009

Туре	No.	Membership	Share Capital (\$)	Deposit (\$)
PRIMARY PRODUCERS	117	7,246	631,951	830,544
Agriculture	54	5,491	581,151	129,938
Federation of Vegetable Marketing Societies* Federation of Pig Raising Societies* Agricultural Credit Farmers Irrigation Pig Raising Vegetable Marketing Better Living	1 1 1 9 28 13	26 9 34 23 399	5,200 56,050 25,380 115 428,140 47,096	  27,858 5,277 96,803
Fisheries	63	1,755	50,800	700,606
Federation of Fishermen Societies* Fishermen Credit Credit and Housing Better Living	4 43 1 15	34 617 15 1,089	10,040 140	39,088 661,016 502 
NON-PRODUCERS	91	4,339	1,241,395	1,427,039
Thrift and Loan Federation of Co-operative Building Societies * Building Consumers Workers	1 1 70 10 9	355 26 1,222 2,605 131	2,600 1,009,600	1,427,039    
GRAND TOTAL	208	11,585	1,873,346	2,257,583

\* Societies as Members



漁農自然證理書年転 Aepiculture, Fisheries and Conservation Department Report 2003-2009



X Close

Appendix 19 STATISTICS ON CREDIT UNIONS AS AT MARCH 31, 2009

Common Bond	No.	Membership	Share Capital (\$)	Reserve Fund (\$)
Associational	18	2,908	92,263,267	9,015,760
Churches Social Centres / Services Benevolent Association Credit Union*	14 2 1 1	2,397 402 51 58	41,667,046 7,954,757 1,480,671 41,160,793	3,520,921 450,827 43,925 5,000,087
Employment	23	67,721	5,005,822,630	214,067,124
Civil Servants Company Employees Industrial Employees Association Employees University Employees	11 4 2 4 2	46,429 18,305 133 643 2,211	3,530,956,250 1,175,769,190 1,968,651 19,522,696 277,605,843	179,366,645 23,980,179 279,290 1,649,060 8,791,950
Residential	2	117	1,002,273	69,513
Housing Estates	2	117	1,002,273	69,513
GRAND TOTAL	43	70,746	5,099,088,170	223,152,397

\* Hong Kong League Central Credit Union







X Close

#### Appendix 20 ENDANGERED SPECIES CONTROL STATISTICS 2008-09

Licences/Certificates issued	
Import Licence	899
Export Licence	14,711
Possession Licence	163
Re-export Certificate	5,391
Others	34
Inspections	
Import consignment	17,026
Export consignment	1,195
Transhipment	523
Inspection of local shops	2,229
Enforcement	
Investigation	326
Seizure	285
Successful prosecution	100
Education and Publicity	
Seminar/talk organised	44
Exhibition organised	48
Visitor to Endangered Species Resource Centre	6,098