



Agriculture and Fisheries

AGRICULTURE

Geographically Hong Kong consists largely of steep, hillside. Only 60 square kilometres of land are actively farmed. Farms are generally small in size and they produce mainly leafy vegetables, pigs or poultry.

Consumption: In round figures, the daily fresh food consumption by Hong Kong's population of more than seven million is 915 tonnes of rice, 1 790 tonnes of vegetables, 4 320 head of pigs, 78 head of cattle and 51 tonnes of poultry in 2008. Much of this is imported, but Hong Kong's primary producers help to satisfy some of the demand.

Local Production: The gross value of local agricultural production totalled \$687 million in 2008. Three per cent of the vegetables Hong Kong people consumed, together with 46 per cent of the live poultry and 7 per cent of the live pigs, come from local farms. Local production is geared to complement rather than compete with other major market suppliers. Production efforts are aimed mainly at high-value fresh foods.

Principal Crops: The value of crop production amounted to \$264 million in 2008. Vegetable and flower production account for about 95 per cent of the total value, being \$250 million in 2008.

Vegetable crops grown all year round include Chinese white cabbage, flowering Chinese cabbage, lettuce, Chinese kale, radish, leaf mustard, spring onion and chive. Spinach, watercress and Chinese wolfberry are produced in the cooler months. Yard-long bean, water spinach, Chinese spinach, cucumber and several species of Chinese gourd are produced in summer. A wide range of temperate vegetables including tomato, sweet pepper, cauliflower, carrot and celery is grown in winter.

Flower cultivation has gained importance in recent years. Gladiolus, lily and chrysanthemum are grown in winter; and ginger lily and lotus flower in summer. Peach blossom is grown especially for the Lunar New Year.

A wide range of fruit is grown on the lower hill slopes, the main types being lychee, longan, wampei, local lemon, orange, tangerine, guava, papaya and banana.

Animal Husbandry: At the end of June 2009, there were 43 local pig farms and 30 local poultry farms. In the first half of 2009, local pig production was valued at \$77 million and local poultry production including eggs was valued at \$85 million.

To reduce the public health and environmental pollution problems associated with livestock keeping, the government introduced a Voluntary Surrender Scheme for Poultry and Pig Farms in 2005 and 2006 respectively as well as a Buyout Scheme for Poultry Farms in 2008. These schemes encourage livestock keepers to surrender their

Livestock Keeping Licence (LKL) and cease their farm operation permanently in return for exgratia payment. At the end of June 2009, 162 poultry farmers and 222 pig farmers had surrendered their LKL under these schemes.

There is one dairy in active operation with a total herd population of less than 30 cows.

Agricultural Development: The Agriculture, Fisheries and Conservation Department (AFCD) and its closely related marketing organisations provide infrastructural support and technical services to the various primary industries.

The department's crop specialists undertake studies into practical problems in pest control, crop husbandry and soil management. They also investigate specific production technologies to enhance the efficiency and economic benefits of the industry. This work is carried out in an experimental station in Sheung Shui and results are made available to farmers by the department's advisory service.

Agricultural advisory activities are aimed at assisting farmers to improve productivity through the introduction of new and improved produce varieties and production techniques, backed up by adequate credit facilities and efficient and orderly marketing services.

Promotion of adaptive greenhouse and organic production technology for local farms are currently being undertaken.

Examples of well-received new produce varieties are: supersweet corn, heat tolerant Chinese Kale, rock melon, strawberry and white bitter cucumber.

Loans issued to farmers in 2008 amounted to \$5.08 million and the total value of loans issued up to December 31, 2008 (under three separate loan funds administered by AFCD) was \$576 million. These loans are granted to cover farm production and development purposes.

Agricultural development also includes improvement of basic infrastructure, rehabilitation of fallow land and studies in farm management problems. Infrastructural work concentrates on the maintenance and improvement of communal irrigation and drainage facilities.

An Accredited Farm Scheme for protecting the environment and consumers against residues of agricultural pesticides was introduced in 1994. Accredited farms are strictly monitored and supervised on uses of pesticides and produce is further checked for pesticide residue before they are sold at accredited retail outlets. At the end of 2008, a total of 250 farms in Hong Kong and the mainland of China were accredited, supplying more than 72 tonnes of accredited produce daily.

AFCD has been providing technical support to local organic farmers since December 2000. AFCD introduces to farmers the organic production standards and requirements, and helps farmers to resolve the problems on integrated pest management, horticultural practices and soil management. At the end of 2008, a total of 123 farms

in Hong Kong joined the service, supplying 4 tonnes of organic vegetable daily.

AFCD also launched the Local Vegetable Farms Voluntary Registration Scheme in July 2006. As at December 31, 2008, a total of 1 992 vegetable farms had been registered. The department provided technical assistance and agricultural services to registered farmers to enhance their awareness of safe production, good farming techniques and produce quality.

To comply with environmental protection legislation, all livestock farms are required to be licensed and must install appropriate livestock waste treatment systems.

Sporadic outbreaks of foot-and-mouth disease and swine fever are kept under control by vaccination, and the department's veterinary services are equipped to investigate and combat all major animal diseases.

FISHERIES

Capture and aquaculture fisheries make an important contribution to Hong Kong by maintaining a steady supply of fresh fish to local consumers. The total capture fisheries and marine fish culture production is equivalent to about 22 per cent of seafood consumed in Hong Kong, while pond fish farmers produce about five per cent of the freshwater fish eaten.

Capture Fisheries: Hong Kong's fishing fleet comprises some 3 750 vessels, almost all are mechanised. About 34 per cent of the vessels are over 15 metres in length. They are mainly trawlers, liners and gill netters engaged in fishing mainly outside Hong Kong waters along the northern continental shelf of the South China Sea. The remaining 66 per cent of the vessels are mainly gill netters, liners, purse seiners and cage trappers operating mainly in the coastal waters around Hong Kong. In 2008, the estimated production was about 158 000 tonnes, valued at \$1.8 billion. Major species of fish caught were hairtail, croaker, golden thread, big-eye, horse-head and scads.

Aquaculture Fisheries: Fish ponds in use total 1 160 hectares and are located mainly in the north-western New Territories. The majority of fish farms are engaged in carp polyculture (bighead carp, silver carp, common carp and grass carp) in combination with tilapia or grey mullet. Other cultured species include seabreams and spotted scat. Total fish pond production in 2008 amounted to 2 266 tonnes, valued at \$41 million.

About 1 050 units are engaged in marine fish culture in the 26 fish culture zones designated under the Marine Fish Culture Ordinance. Common species cultured include green grouper, brown-spotted grouper, Russell's snapper, mangrove snapper, cobia and pompano. Total marine fish culture production in 2008 amounted to 1 370 tonnes, valued at \$82 million.

Development and Services: To promote sustainable development of the fishing industry and to conserve fisheries resources in Hong Kong waters, AFCD continues to pursue a number of fisheries conservation and management measures. Apart from strengthening enforcement against destructive fishing practices, the department has deployed 668 units of artificial reefs with a total volume of 179 000 cubic metres in Hong Kong waters with a view to enhancing the fisheries resources. Results of underwater monitoring survey revealed that the deployed artificial reefs supported a higher diversity and abundance of fish species as compared with the nearby natural habitats. Over 220 species of fish, including many high-valued species such as groupers, breams, snappers and sweetlips, are using the reefs for feeding, shelter and as spawning and nursery areas. Besides, continuous emphasis is placed on assisting fishermen to switch to sustainable fisheries and other related operations through

provision of technical advice, training, liaison services and credit facilities.

To alleviate the manpower shortage of the fishing industry, the department continues to operate the Mainland Fishermen Deckhands Scheme to allow Mainland deckhands to enter Hong Kong to help fishing vessels operators to unload their catches at wholesale fish markets. In 2008, some 4 800 deckhand quota have been issued to about 1 000 vessel operators.

AFCD continues to implement the voluntary Accredited Fish Farm Scheme in a bid to enhance the environmental hygiene standards of local fish farms and the quality of cultured fish. Participating fish farms under the scheme are required to adopt a set of good aquaculture practices. Quality assurance tests including analyses of drug residues and heavy metals in fish are conducted to ensure that the cultured fish meet the food safety standards before marketing. The accredited fish are marked with specially designed fish tags under the 'Accredited Fish Farm Scheme' brand name to enable easy recognition by the public. Some 80 fish farms have been accredited under the scheme so far.

AFCD conducts aquaculture studies and provides technical services relating to the development of more efficient fish culture methods and improved husbandry techniques. Continuous effort is made in promoting suitable feed formulations to replace the traditional use of trash fish as feed for mariculture in a bid to improve fish health and reduce pollution. To provide a wider choice of fish species for culture, AFCD conducts trials of new species with good market potential and introduces the proven culture techniques to fish farmers. Following the introduction of jade perch for local culture, the department has successfully produced jade perch fry from hatching of imported fertilized eggs and induced spawning with a view to helping fish farmers secure a stable supply of fish fry at lower costs.

AFCD set up an experimental fish hatchery in Ta Kwu Ling in 2008 to promote local production of fish fry. A training workshop was also conducted there jointly with the Network of Aquaculture Centres in Asia-Pacific to help local farmers acquire technical know-how in fish fry production.

To help fish farmers minimise losses due to fish diseases, AFCD has put in place a fish health management programme under which regular farm visits are conducted to facilitate early detection of disease outbreaks, to train fish farmers on disease prevention measures and to provide fish disease diagnosis service in case of disease outbreak.

A new 'Good Aquaculture Practices Programme' was launched in 2008 to enhance fish farm management. Under the programme, AFCD visited fish farms regularly to collect water and fish samples for analysis. Seminars were held for farmers to learn new techniques and good management practices.

AFCD continues to implement the red tide reporting network and the proactive phytoplankton monitoring programme with a view to providing early red tide warnings to mariculturists, thereby minimising the impact of red tides on mariculture. In 2008, 15 red tide incidents were recorded in Hong Kong waters. No fish kill caused by red tide was reported.

AFCD continues to administer various loan funds for fishermen and fish farmers for production and development purposes. In 2008, some 850 loans amounting to \$88.3 million were provided.

The department administers the Fish Marketing Organization which is a non-government, non-profit-making corporation vested in the Director of Marketing (currently the Director of Agriculture, Fisheries and Conservation) to provide orderly fish marketing services to both the fishermen and fish traders. The Organization currently runs seven wholesale fish markets

in Cheung Sha Wan, Aberdeen, Castle Peak, Shau Kei Wan, Kwun Tong, Tai Po and Sai Kung. Revenue comes from charging commission on the proceeds of sales and fees for using the market facilities. Surplus earnings are channelled back into the industry through the provision of low-interest loans to fishermen, improved services and facilities in the markets and scholarships for fishermen and their children. It also helps promote the marketing of the local fisheries products through its marketing network and participation in trade fairs and exhibitions.

To meet the challenges facing the local fisheries industry, the Government set up the Committee on Sustainable Fisheries 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. The Committee has drawn up some preliminary proposals aimed to promote modernisation and development of sustainable fisheries, control on fishing effort, as well as conservation and enhancement of local fisheries resources.