

Chapter 10

Food Safety, Environmental Hygiene, Agriculture and Fisheries

With more than 90 per cent of its food imported, Hong Kong devotes considerable efforts to ensuring the safety of the wide variety of food available for sale. The government's policy is to maintain a clean and hygienic living environment and to protect the public from threats of zoonotic disease.

The Food and Health Bureau draws up policies on food safety, environmental hygiene, animal welfare, agriculture and fisheries, and allocates resources to execute these policies. It works closely with the Food and Environmental Hygiene Department (FEHD), Agriculture, Fisheries and Conservation Department (AFCD) and Government Laboratory.

The FEHD ensures food sold in Hong Kong is safe and fit for consumption and that a clean and hygienic living environment is maintained for the people of Hong Kong.

The AFCD implements policies supporting the agricultural and fisheries industries, provides farmers and fishermen with infrastructural and technical support, and administers loans and funding schemes to support the industries' sustainable development. The department also oversees quarantine and animal welfare matters.

The Government Laboratory provides testing services to support the regular food surveillance programme of the FEHD's Centre for Food Safety and help the centre handle food incidents.

Licensing of Food Premises and Other Trades

The FEHD is the licensing authority for food businesses. It issues licences for food businesses and permits for the sale of restricted foods. It also issues permits for karaoke establishments in licensed restaurants and licences for places of public entertainment, private swimming pools, commercial bathhouses, funeral parlours, undertakers of burials and offensive trades. It provides executive and secretarial support to the Liquor Licensing Board, an independent statutory body that issues liquor licences, including those for clubs.

During 2019, the department issued 8,399 full, provisional and temporary food business licences; 957 permits for the sale of restricted foods, including 156 online restricted food

permits; 2,822 licences for places of public entertainment; 37 licences for other trades; 1,133 liquor and club liquor licences; and 14 permits for karaoke establishments in licensed restaurants.

Food Safety and Labelling

The Centre for Food Safety safeguards food sold in Hong Kong. It took about 66,000 samples of food at import, wholesale and retail levels for chemical, microbiological and radiological testing in 2019. The overall satisfaction rate of these tests was 99.8 per cent. The Government Laboratory is responsible for most of the testing of food samples.

During the year, the Animal Inspection Station at Man Kam To inspected 23,423 vehicles carrying live food animals including pigs, cattle and goats, and examined 860,311 live food animals.

The bureau and the centre, making reference to the food safety standards of the Codex Alimentarius Commission and other economies, and taking into account local dietary practices and risk assessment results, update Hong Kong's food safety standards and regulatory arrangements in a timely way based on scientific evidence. The Food Adulteration (Metallic Contamination) (Amendment) Regulation 2018, which stipulates updated standards for metallic contamination in food, came into force for fresh food with a shorter shelf life on 1 November. The amendments aim to enhance regulatory control, better protect public health and align Hong Kong with international standards.

In general, pre-packaged food, unless exempted, has to carry a nutrition label giving information about energy and seven specified nutrients.

Public Markets and Cooked Food Markets

The FEHD operates 97 public markets, including 23 free-standing cooked food markets, and carries out promotional activities to boost the vibrancy of the premises. There are some 14,000 stalls selling fresh provisions, cooked food, light refreshments and household items as well as providing service trades.

As at end-2019, the overall occupancy rate at these markets was 87 per cent. The department is implementing a 10-year Market Modernisation Programme to improve the markets' operating environment through a major overhaul for some and minor improvement works at others. The department is also conducting a comprehensive review of its public markets and will formulate specific improvement measures for both the facilities and their management.

The department is planning for new public markets in Tin Shui Wai, Tung Chung Town Centre, Tseung Kwan O, the Kwu Tung North and Hung Shui Kiu new development areas, and Tung Chung New Town Extension. New approaches to the design, construction and operation of such projects are under consideration. The department is also preparing to set up a temporary market in Tin Shui Wai.

Hawkers

The FEHD regulates hawking in Hong Kong. As at end-2019, there were 5,045 licensed fixed-pitch hawkers and 370 licensed itinerant hawkers.

A five-year Assistance Scheme for Hawkers in Fixed-pitch Hawker Areas, launched in 2013, offered financial help to 4,330 hawkers in 43 fixed-pitch hawker areas to reduce fire risks in hawker areas. All 508 fixed-pitch hawkers whose stalls were situated at building staircase discharge points or places that might obstruct the operation of fire engines have been relocated. By 2 June 2018, the end of the application period for a grant or ex gratia payment, the department had received 3,424 applications for relocation and reconstruction grants, and 854 hawkers had surrendered their licences for an ex gratia payment, meaning nearly 99 per cent of the licensed hawkers had joined the scheme. In early 2019, reconstruction of the stalls was fully completed. The financial help provided under the scheme totalled \$223 million.

Following the release of vacant hawker pitches from the scheme or due to other reasons, the FEHD identified 435 hawker pitches for reallocation and offered new licences for application. It conducted an open ballot to determine the order in which eligible applicants could select pitches and started to issue new hawker licences in late 2019.

Slaughterhouses

The FEHD oversees the hygiene standards of licensed slaughterhouses in Sheung Shui, Tsuen Wan and Cheung Chau. Meat supplied by the slaughterhouses has to pass inspection before delivery to markets. During the year, 23,423 movement permits for imported livestock and 9,649 entry permits for local pigs were verified at the slaughterhouses, 33,467 samples of urine and tissue were taken from animals and tested for veterinary drug residues, and 945,660 pigs, 15,344 head of cattle and 1,802 goats were slaughtered.

Public Cleaning Services

The FEHD provides street cleansing services, household waste collection services and public toilets. All streets are swept one to eight times a day and are washed regularly, from daily to fortnightly or whenever the need arises, depending on the conditions of individual locations. Flyovers and high-speed roads are cleansed by mechanical sweepers.

Household waste is collected all year round. In 2019, about 78 per cent of waste collection services were outsourced and about 5,830 tonnes of household waste were collected daily by the department and its contractors.

Toilet attendant services are provided at heavily used public toilets. During the year, 49 public toilets underwent refurbishment, of which 15 were at major tourist spots. To improve the air quality and hygiene of public toilets, the department rolled out several trial schemes in 2019 that made use of technology, such as atomised ozonated water technology, nano bubble technology and microalgae greenwall technology.

The department takes enforcement action against littering, spitting and other unhygienic practices in public places. In 2019, some 47,950 fixed penalty notices were issued. To support

enforcement action against fly-tippers, internet protocol (IP) cameras have been installed at illegal refuse dumping black spots since June 2018, greatly improving hygiene conditions. As at end-2019, about 150 illegal refuse dumping black spots were installed with IP cameras. The scheme will be extended to cover over 300 locations.

To enhance public cleansing services through technology, the department launched trial schemes in 2019 using mechanised and automatic cleansing technology and equipment such as solar-powered auto-sensored aluminum refuse collection points and mini mechanised street sweepers.

Abatement of Sanitary Nuisances

The department issues nuisance notices requiring those responsible to stop sanitary nuisances such as refuse accumulation, dripping air conditioners and water seepage in private premises. In 2019, it issued 9,723 such notices and secured 111 convictions against those who failed to comply with the notices.

Pest Control

Preventing the spread of pest-borne diseases is one of the FEHD's prime tasks. It constantly reviews the methodology and strategy for controlling the spread of pests. Campaigns are carried out annually to urge people to help stop the spread of mosquitoes and rodents.

The department maintains close surveillance of the *Aedes albopictus*, a carrier of dengue fever and potential vector of the Zika virus, and the *Culex tritaeniorhynchus*, a carrier of Japanese encephalitis. Anti-mosquito teams conducted 847,088 inspections of likely mosquito breeding spots and eliminated 65,795 breeding places during the year. One local case of dengue fever was recorded.

The department deploys pest control teams to sustain mosquito prevention and control work. Resources are added to start intensive exercises across the territory before the rainy season, so as to suppress the adult mosquito population and eradicate possibly infected mosquitoes. All samples collected under a dengue vector surveillance programme in port areas and in areas with an area ovitrap index of at least 10 per cent are tested for dengue and the Zika virus.

On rodent prevention and control, the department conducts two phases of a territory-wide campaign, and two other rounds in target areas to strengthen rodent disinfection and control at the district level. In 2019, the department filled 12,963 rat holes, collected 30,259 dead rodents, caught 23,727 live rodents and handled 11,329 complaints.

Cemeteries, Crematoria and Columbaria

The department manages six government crematoria, 10 public cemeteries, 12 gardens of remembrance and nine public columbaria, and monitors the management of 27 private cemeteries. To cope with the long-term public demand for facilities and services that handle the cremated ashes of the deceased, the government seeks to increase the supply of public niches, promote green burial and regulate private columbaria.

The government promotes a district-based columbarium development scheme to provide public niches. A columbarium project in Wan Chai was completed in 2019, while two other projects in Tsang Tsui and Wo Hop Shek are scheduled for completion in 2020, capable of providing about 208,000 niches. The government will expedite the development of public columbaria on shortlisted sites across the territory.

In 2019, the FEHD finished allocating 20,380 new niches in phase 1 of Tsang Tsui Columbarium and all 855 new niches in Wong Nai Chung Road Columbarium.

The government promotes green burial, encouraging environment-friendly and sustainable ways of handling ashes by scattering them in gardens of remembrance or at sea. The department provides a free ferry service to scatter ashes at sea, as well as a mobile application on internet memorial services and electronic memorial kiosks installed near the new Kwai Chung Garden of Remembrance to let the public pay tribute to the deceased online. A Green Burial Central Register was set up in 2019 to encourage the public to plan in advance their after-death arrangements by registering and sharing with their families their wish for a green burial.

Under the Private Columbaria Ordinance, a specified instrument, namely a licence, an exemption or a temporary suspension of liability, must be obtained to operate a private columbarium, except during the grace period as applicable. A private columbarium must obtain a licence before it sells or newly lets out niches. Any person who operates, keeps, manages or has control of a private columbarium in contravention of the requirements under the ordinance is liable to prosecution and, on summary conviction, to a fine of \$2 million and imprisonment for three years or, on conviction on indictment, to a fine of \$5 million and imprisonment for seven years.

The Private Columbaria Licensing Board regulates the operation and management of private columbaria, and handles applications for specified instruments. As at end-2019, it had issued four licences, given approvals in principle for two licence applications and one temporary suspension of liability application, and refused 15 sets of applications for specified instruments, and was processing about 290 applications submitted by 117 private columbaria. The FEHD conducts inspections and takes enforcement action against the illegal operation of private columbaria. During the year, it carried out about 450 inspections and investigated about 50 cases of suspected contravention of the ordinance.

Public Education

In 2019, the FEHD's Health Education Exhibition and Resource Centre in Kowloon Park organised 2,117 health talks for the public and target groups, including students and the elderly. A mobile education centre disseminates food safety and environmental hygiene messages across the territory.

The Centre for Food Safety held the annual signature Food Safety Day under the theme 'Empower Consumers to Ensure Food Safety' in 2019, with participation from women's groups, foreign domestic helper associations and its own Consumer Liaison Group, to encourage the

public to work together to improve food safety. The centre also held the Food Safety Seminar for Trade for the government and the food trade to discuss food safety issues.

The centre disseminates information and advice on food safety via online platforms such as Facebook, YouTube and Instagram.

Guarding against African Swine Fever

The government has been vigilant about any outbreak of African swine fever in Hong Kong. While African swine fever is not a zoonotic disease and poses no food safety risk, its virus is tough and fast-spreading, and can cause widespread deaths among pigs within a short time. The government has been implementing a suite of preventive measures to minimise the risk of transmission in Hong Kong and maintain a steady supply of live pigs as far as possible. Biosecurity is enhanced at pig farms, boundary checkpoints and slaughterhouses.

In response to two pig samples from Sheung Shui Slaughterhouse testing positive in May, the government imposed a daily clearance arrangement at slaughterhouses in June, taking into account the views of local and overseas experts and with the support of the live pig trade. Lairages in different areas of the slaughterhouses are cleared out for thorough cleansing and disinfection every day, so that if an infected case is detected, it is not necessary to close the slaughterhouse and cull the other pigs, which can be supplied as usual to the market for consumption.

Owing to the arrangement, slaughterhouse operations were not affected when the virus was again found in the samples of three pigs from Sheung Shui Slaughterhouse in September, lessening the impact on the public and stakeholders.

Measures against Avian Influenza

Government measures to keep avian influenza (AI) at bay include stringent monitoring of the poultry supply chain from farm to retail levels, vaccination of chickens against H5 and H7 AI and close surveillance of imported and local birds.

Hong Kong bans the keeping of poultry in backyards. Offenders are liable to a maximum fine of \$100,000. Owners of racing pigeons are required to hold exhibition licences, while pet bird traders must submit official animal health certificates to the authorities, or documents such as invoices showing the places of origin of their birds, or the names and addresses of their suppliers. The sale of birds from unknown sources is prohibited. Bird traders must keep up-to-date records of their transactions and the number of birds in their possession.

Live poultry are allowed to be sold at retail level. All live poultry in public market stalls and fresh provision shops must be slaughtered by 8pm every day. Live poultry are not allowed in these premises between 8pm and 5am. Live poultry retailers must ensure people working at retail outlets wear protective clothing and must report any dead poultry immediately to the FEHD. They must not overstock live poultry on their premises and must affix acrylic panels to their poultry cages to prevent direct contact between customers and the poultry.

Samples are collected for testing from poultry farms, wholesale market and retail outlets; from healthy, sick and dead birds; from birds kept in recreation parks and pet shops; and from wild birds in wetlands and elsewhere. The government provides a round-the-clock service for the collection of sick and dead wild birds and poultry. In 2019, the AFCD collected 9,142 wild bird and poultry carcasses and found none carrying the H5 AI virus.

Other preventive measures against AI include inspecting live poultry retail outlets to ensure compliance with special licensing or tenancy conditions on AI control; cleaning common areas of FEHD markets thoroughly three times a day; cleaning live poultry market stalls after business hours daily, followed by further thorough cleansing and disinfection by FEHD contractors; maintaining the cleanliness of market stalls' ventilation systems; conducting inspections, washing and disinfection of public places where wild birds gather, and taking stringent enforcement action against the feeding of wild birds in public places.

The measures are effective in preventing human infection of AI, as evidenced by the total absence of any locally infected human case of H5 or H7 AI virus after the first AI outbreak in Hong Kong in 1997.

Antimicrobial Resistance

The Hong Kong Strategy and Action Plan on Antimicrobial Resistance (2017-22) tackles the increasing threat of antimicrobial resistance to public health. The action plan details AFCD measures on the food animal production sector, including livestock and fish, that aim to alleviate the development of antimicrobial resistance and safeguard animal and public health.

The department analyses antimicrobial usage and antimicrobial resistance, and devises control measures accordingly. It inspects food animal farms to collect data and samples, including animal feed and healthcare products, to evaluate antimicrobial usage, as well as biological samples for bacterial culture and antimicrobial sensitivity testing. In July, a long-term surveillance system was launched to monitor antimicrobial usage and antimicrobial resistance on food animal farms.

During the year, the department granted funding through the Sustainable Agricultural Development Fund and Sustainable Fisheries Development Fund to the Jockey Club College of Veterinary Medicine and Life Sciences of the City University of Hong Kong to provide veterinary services to food animal farms. It also held seminars for food animal farmers to promote responsible and prudent use of antimicrobials, and to convey the message of preventing disease through good farm management practices and effective biosecurity measures. Roving exhibitions were organised to raise public awareness of the problem of antimicrobial resistance.

Control of Animal Diseases

As Hong Kong's inspection and quarantine authority for animals, the AFCD regulates cross-boundary animal movements to prevent animal diseases from entering the territory. The department also assesses the risk of disease in imported animals and animal products on the basis of their species, the intended use and the disease status of the place of origin, and formulates quarantine measures to control the import of animals and animal products.

In 2019, about 8,700 permits were issued for animal imports, which included dogs, cats, horses, birds, zoo animals and live food animals such as pigs and cattle.

Quarantine Detector Dog Programme

The Quarantine Detector Dog Programme helps combat the illegal import of animals. The dogs are trained to detect live animals and animal products hidden in luggage at boundary control points, including Lok Ma Chau, Shenzhen Bay, Hong Kong International Airport and the airport's Air Mail Centre. In 2019, more than 133,000 travellers, 680 vehicles and 18,000 parcels and pieces of luggage were screened.

Animal Welfare and Management

The government's approach towards animal welfare and management includes strengthening public education, controlling animal trading properly, fostering close partnerships with animal welfare organisations, managing stray animals properly, and handling and preventing acts of animal cruelty.

Hong Kong is rabies-free. All dogs over five months old must be licensed and vaccinated against rabies. Stray dogs and cats are brought to the AFCD animal management centres, and healthy and well-tempered ones are rehomed.

The department encourages care and respect for animals. In 2019, it held 123 educational talks, seven dog training courses, 31 exhibitions and a pet adoption day to promote responsible pet ownership and animal welfare.

The department partners with 18 animal welfare organisations to rehome dogs, cats, rabbits, birds and reptiles. It works with these organisations to hold joint animal adoption events and to provide free desexing for animals rehomed through them, and subvents these organisations in carrying out animal welfare and management projects.

A working group involving the AFCD, FEHD, police and Society for the Prevention of Cruelty to Animals seeks to improve the handling of animal cruelty reports by examining the government's work on handling cruelty cases, devising guidelines and ensuring animal welfare is well protected.

All pet shops selling animals must be licensed by the department, which inspects these shops to ensure compliance with the licensing conditions. Pet shops are required to obtain dogs for sale only from approved sources. Dog breeders and sellers are subject to tightened regulations and increased penalties under the Public Health (Animals and Birds) (Trading and Breeding) Regulations.

Primary Production

Hong Kong's agricultural and fisheries industries are relatively small in scale. The government helps improve their output quality, productivity and competitiveness. The two industries combined employed some 17,751 people directly and produced \$4.24 billion of output during

the year. Live poultry accounted for 100 per cent of local consumption; cut flowers, 28 per cent; seafood, 20 per cent; live pigs, 12 per cent; freshwater fish, 4 per cent; and vegetables, 1.7 per cent.

Agricultural Industry

The agricultural industry focuses mainly on producing quality fresh food crops through intensive land use. Most farming is in the New Territories for growing crops, comprising mainly vegetables and cut flowers, with a combined output in 2019 valued at about \$361 million. The principal food animals reared are pigs and poultry, which respectively yielded earnings of about \$602 million and about \$378 million, inclusive of eggs.

The AFCD encourages crop farmers to tap niche markets and sharpen their competitiveness by cultivating safe and quality vegetables. To promote organic farming, the department provides organic farming support to 322 farms occupying 103 hectares of land. It also promotes the use of greenhouse technology for intensive high-value crop production. During 2019, two improved varieties, namely the yellow flesh watermelon and super sweet white corn, were introduced to farmers for cultivation.

The department manages a voluntary Accredited Farm Scheme jointly with a statutory body, the Vegetable Marketing Organisation (VMO), to provide a stable supply of quality and safe vegetables. A total of 313 farms in Hong Kong, Guangdong Province and Ningxia Autonomous Region, occupying 2,717 hectares of land, are accredited under the scheme.

The Controlled Environment Hydroponic Research and Development Centre, a joint set-up between the AFCD and VMO at Cheung Sha Wan Wholesale Vegetable Market, studies the application of state-of-the-art hydroponic cultivation techniques to the agricultural sector, to enhance the output of local vegetable production. The technology utilises limited space to produce high-value crops indoors all year round under a completely controlled environment without weather disruptions.

Leisure farms are popular places for recreation. The department works with the agricultural sector to update information about Hong Kong's leisure farms and uploads the information to a mobile application, Hong Kong Leisure Farms.

Under the New Agriculture Policy, the government promotes the modernisation and sustainable development of local agriculture. A \$500 million Sustainable Agricultural Development Fund aims to enhance the industry's overall competitiveness and an Agricultural Park is being planned for Kwu Tung South. An ongoing consultancy study explores the feasibility and merits of designating agricultural priority areas.

Fisheries Industry

Fresh fish is one of Hong Kong's most important primary products. In 2019, the amount of fish caught and fish reared in ponds and floating cages at sea totalled about 126,200 tonnes, with a value of \$2.9 billion.

Some 6,390 vessels were licensed as Class III vessels, meaning fishing vessels, under the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation. These included larger vessels operating mainly in the South China Sea and smaller vessels in local waters. About 10,100 local fishermen worked on these vessels, which had a quota of 4,250 Mainland deckhands. The total catch weighed about 122,900 tonnes, with an estimated wholesale value of \$2.8 billion, and provided some 35,000 tonnes of fish for local consumption.

As at the year end, 923 AFCD-licensed mariculturists were operating in 26 designated fish culture zones. They supplied consumers with some 890 tonnes of live marine fish valued at \$72 million during the year.

Freshwater and brackish water fish are reared in fish ponds located mainly in the north-western New Territories. In 2019, pond fish culture yielded some 2,280 tonnes of fish, making up 4 per cent of local freshwater fish consumption.

The Fisheries Protection Ordinance requires all local fishing vessels operating in Hong Kong waters to register with the department, so as to control the number of fishing vessels and maintain an appropriate level of fishing in local waters.

The department combats illegal fishing practices, including trawling, to ensure sustainable development of the industry and to conserve fisheries resources in Hong Kong waters. Six cases of illegal fishing were convicted in 2019.

At the same time, the department helps the industry cope with challenges, including providing credit facilities to fishermen, owners of fish-collecting vessels and fish farmers for sustainable development and general productive purposes. It offers free training courses to fishermen during the annual fishing moratorium and Chinese New Year. A \$500 million Sustainable Fisheries Development Fund, set up in 2014, helps fishermen adopt sustainable and high value-added methods of operation, and subsidises programmes and research to enhance the industry's competitiveness. By end-2019, nine applications on promoting aquacultural development, two on fisheries-related eco-tourism projects, two on facilitating the development of capture fishery and eight on supporting the improvement of fisheries equipment had been approved, involving a total commitment of about \$114 million.

To promote sustainable development of the aquacultural industry, the department conducts studies and provides technical support to fish farmers. It visits fish farms to promote good aquacultural practices, to provide support on fish health management including on-site health checks and disease diagnosis, and to promote prudent and responsible use of antimicrobials. The voluntary Accredited Fish Farm Scheme tags the accredited fish of 122 participating farms for easy recognition. More than 67,000kg of accredited fish were sold under the scheme in 2019.

Specially designed artificial reefs known as biofilters improve water quality and seabed conditions at fish culture zones in Yim Tin Tsai (East), Kau Sai, Sham Wan and Lo Tik Wan.

To meet public demand for recreational fishing and to help mariculturists diversify their business, 64 mariculturists in 10 fish culture zones have the department's approval to operate recreational fishing businesses on licensed fish culture rafts.

The department monitors red tides and issues red tide alerts through support groups at the fish culture zones and via its website, press releases and text messages. Twelve red tides were recorded in Hong Kong waters in 2019.

Wholesale Markets

Fresh food produce is sold in wholesale markets managed by the AFCD, VMO, Fish Marketing Organisation (FMO) and private sector. In 2019, government wholesale markets, namely the Western Wholesale Food Market, Cheung Sha Wan Wholesale Food Market, Cheung Sha Wan Temporary Wholesale Poultry Market and North District Temporary Wholesale Market for Agricultural Products, handled 264,274 tonnes of vegetables, 77,227 tonnes of fruit, 68,760 tonnes of eggs, 43,224 tonnes of freshwater fish and fish products and 7,729 tonnes of poultry, with a combined value of \$6.6 billion.

The VMO is governed by the Agricultural Products (Marketing) Ordinance. It provides farmers and traders with wholesale marketing services, including trading facilities, transport and pesticide residue tests, in return for a commission on the vegetables sold. Surplus income is ploughed back into farming development and scholarships for farmers' children. In 2019, the VMO handled 79,430 tonnes of vegetables valued at \$651 million.

The FMO is governed by the Marine Fish (Marketing) Ordinance. It provides wholesale marketing services at its seven wholesale markets. Revenue comes from commission charged on fish sales and fees charged for the use of the market facilities. Surplus earnings are channelled back to the fisheries industry by way of low-interest loans to fishermen, outlay that improves market services and facilities, and training grants and scholarships for the fishermen and their children. In 2019, some 42,710 tonnes of marine fish valued at \$3.6 billion were sold through the FMO. The organisation also develops fish products at its processing centre to promote the quality of local products.

Websites

Agriculture, Fisheries and Conservation Department: www.afcd.gov.hk

Food and Environmental Hygiene Department: www.fehd.gov.hk

Food and Health Bureau: www.fhb.gov.hk

Internet Memorial Service: www.memorial.gov.hk