

## 第一章

# 國際透視

- 全球變化
- 食物安全架構的全球趨勢
- 香港：七百萬人的美食大都會

## Chapter 1

# An International Perspective

- Global Changes
- Global Trends in Food Safety Framework
- Hong Kong: A Gastronomic Melting Pot for 7 Million People





## 全球 變化

我們現正目睹世界經歷着前所未有的變化，而食物業是變化最快速的行業之一。本港的食物安全監控工作與世界各地息息相關，國際形勢實不容忽視。

過去十年，食物安全事故和由食物傳播的疾病時有發生，世界各地無一幸免，公眾健康和社會都因而受到影響。近年，由食物傳播的疾病和動物疫症(例如禽流感)而引起的重大事故，令人關注到現行食物安全監控制度是否能夠保障消費者；食物安全和食物行業的規管架構也因而逐漸成為關注焦點。

此外，公眾日漸關注微生物危害、化學品污染、不適當使用食物添加劑、除害劑和獸藥，以及消費者對與飲食有關的健康問題日益重視，皆使食物安全監控制度進一步備受注視。近期引起關注的食物安全事例有：

- 瘋牛症或牛海綿體病
- 菠菜沙律受O157大腸桿菌污染
- 多種食品含蘇丹紅

“**食物**安全既是衛生事宜，又是貿易事宜，備受全球關注。不過，人們必須明白一點，就是在食物安全範疇上沒有零風險這回事，食物事故必然會發生。食物安全中心必須協助消費者理解這一概念，好讓他們可以保護自己。”

食品法典委員會主席  
Claude Mosha 博士

食物生產和監控的以下幾個特點，令食物安全問題更趨複雜：

### 食物供應全球化

現時一個國家生產的食物可運往地球的另一端供人食用。結果是有更多種類的高質素食物能夠以可承受的價格出售，甚至有助提升市民的營養和健康水平，但食物供應全球化亦對食物的安全生產和銷售方式帶來前所未見的挑戰。新的食品(即並非傳統上地方膳食的食物)現在亦經常在市面出售。

### 城市化

地方越來越城市化，令食物在運輸、貯存和配製方面的需求增加。越來越多人遷離農業區，食物鏈由是加長，而由食物引致的危害的風險也無可避免地增加。



## Global Changes

We are now witnessing a most profound and dynamic changing world and the food industry is one of the fastest changing industries. It is not possible to ignore the international context in which our local food safety control takes place.

Over the past decade, no continent has been spared of the occurrence of food incidents and outbreaks of food-borne disease, and the relevant public health and social impact. Recent dramatic episodes of food-borne diseases as well as animal disease outbreaks, such as avian influenza, have raised concerns about the effectiveness of current food safety control systems in protecting consumers, and have thus sparked increased focus on the regulatory frameworks that govern food safety and the food trade.

Furthermore, concerns over microbiological hazards, chemical contaminants, the inappropriate use of food additives, pesticides and veterinary drugs, as well as heightened consumer interests in diet-related health issues, have further raised the profile of food safety control systems. Some examples of recent food safety concerns include:

- **Mad cow disease or bovine spongiform encephalopathy**
- **Spinach salad contaminated with *E.Coli* O 157 bacteria**
- **Sudan dyes in various food products**

**“Food safety commands major global attention as both a health and trade issue. However, one must appreciate that there is no such thing as zero risk in food safety, and food incidents are bound to happen. It is important for the Centre for Food Safety to help consumers to understand this idea for them to play a part in protecting themselves.”**

*Dr Claude Moshia*  
*Chairperson of the Codex Alimentarius Commission*

Several important aspects of food production and control have contributed to the increasing complexity of food safety issues:

### Globalisation of food supply

Nowadays food grown in one country can be transported and consumed halfway across the world. Whilst this results in a wider variety of high quality foods being accessible, affordable, even improving nutritional status and health, it also presents challenges unseen before for safe food production and distribution. Novel foods (i.e. foods that have not traditionally formed part of the local diet) now appear regularly.



## 生活水平和生活習慣的改變

城市人的飲食習慣改變，意味“快餐文化”漸趨流行，以及市民經常出外用膳或進食由食店製備的食物。涉及食店的食物事故自然會增加，對市民的影響亦較過往廣泛。

## 密集式飼養禽畜

畜牧者力求以更具效率和成本效益的方式飼養更多禽畜，導致過分使用低成本的密集式飼養方法，這不只不利禽畜健康，還會造成環境污染，最終引致食物安全問題。差劣的禽畜飼養方法所引起的問題包括導致由食物傳播的疾病(例如沙門氏菌和胚胎彎曲桿菌感染)、禽畜含過量殘餘獸藥和引致人類對藥物有抗藥性。另一方面，當禽流感成為全球健康和食物安全的重要議題時，提高生物安全水平，例如分隔飼養家禽和水禽，已被認定是有助防止禽流感爆發的方法。

## 科技與大量生產加工食品

科技在各方面改變世界，在食品工業方面也不例外。新科技例如基因工程和輻照技術或可提高農業生產，但還需持續研究其所帶來的影響。科技進步令越來越多加工食品能夠以更低的成本製造，及有更長的保質期；即食物因此可保持新鮮，而大受消費者歡迎。不過，衡量這些發展時，我們必須顧及過度使用添加劑和化學品的問題。

## 食物安全架構的 全球趨勢

因應上文所述的多項重大挑戰，國際間近年在更新食物安全架構方面有長足發展。

### 設立食物安全機關

過去十年，各國相繼設立新的食物安全機關，包括加拿大食物檢驗局(Canadian Food Inspection Agency)(一九九七年)、愛爾蘭食品安全局(Food Safety Authority of Ireland)(一九九九年)、英國的食物標準局(Food Standards Agency)(二零零零年)、新加坡的農業食品與獸醫局(Agri-Food and Veterinary Authority)(二零零零年)、日本食品安全委員會(Food Safety Commission of Japan)(二零零一年)、法國食品安全局(French Food Safety Agency)(二零零二年)、新西蘭食物安全局(New Zealand Food Safety Authority)(二零零二年)，以及歐洲食物安全局(European Food Safety Authority)(二零零四年)。這反映各國食物安全監管機構已提高警覺，應付新的食物安全問題。上述機關都以提高透明度，獲得公眾接納和信任，成為具有公信力和為人所熟悉的機構作為目標。這些機關大多是在發生重大食物安全事故後為回應公眾的關注而成立，各國政府的食物安全政策亦因此而有重大改變。

## Urbanisation

Increased urbanisation has led to greater requirements for transport, storage and preparation of food. The movement of people away from primary production areas inevitably results in an elongation of the food chain with the unwanted increased potential of the introduction of food-borne hazards along this chain.

## Living standards and change of lifestyles

A change in eating patterns to an urban lifestyle means that “fast food” gains popularity and people eat much of their food away from home or have food prepared by commercial operations. Food incidents taking place in food outlets naturally increase and have wider implications to the community than in the past.

## Intensification of livestock production

The push to produce more livestock more efficiently and cheaply has led to an overemphasis on intense, lower cost production practices which is not conducive to animal health, generates environmental concerns, and ultimately food safety concerns. Problems arising from poor primary production practices include food-borne infections such as *Salmonellosis* and *Campylobacteriosis*, excessive veterinary drug residues and resistance to antimicrobials. On the other hand, better bio-security, such as segregation of land and water fowl production is recognized, inter alia, as an essential step to prevent the outbreak of avian influenza which dominates today’s global health and food safety agenda.

## Technologies and mass production of processed foods

Technology is changing the world in different aspects, and the food industry is of no exception. New technologies such as genetic engineering and irradiation may increase agricultural production, but further on-going research on their impacts is required. Technological advances enable the manufacture of more and more processed food at lower cost with longer shelf-lives, which may appeal to consumers as ready-to-eat foods continue to stay fresh. Such development, however, must be balanced against concerns regarding excessive use of additives and chemicals.

## Global Trends In Food Safety Framework

Internationally, great strides have been made in recent years with regards to updating food safety frameworks in response to the significant challenges outlined above.

## Establishment of food safety authorities

In the past decade, new food safety agencies were created by different countries, such as the Canadian Food Inspection Agency (1997), the Food Safety Authority of Ireland (1999), the Food Standards Agency (UK, 2000), the Agri-Food and Veterinary Authority (Singapore, 2000), the Food Safety Commission of Japan (2001), the French Food Safety Agency (2002), the New Zealand Food Safety Authority (2002), and the European Food Safety Authority (2004). The creation points to increased awareness on the part of the regulators in tackling new

## 食物安全的整體策略

食物安全政策適用於整個食物業(“由農場到餐桌”)的各個範疇。“食物鏈全方位管理”政策涵蓋飼料生產、農作物生產、食品加工、貯存、運輸和零售。這個政策不但可讓食物安全當局在源頭控制食物的安全水平或盡早預防食物事故發生，亦可確保一旦發生事故，可以作出迅速和有效的回應。

## 持分者的角色

我們必須清楚劃定各持分者的責任。農業生產商和食物業營運者的基本責任是確保食物安全，而有關當局則應透過監察和監控制度審查他們有沒有履行責任。加強政府與食物業界的合作，對雙方都有利。政府可更妥善地監察業界，而業界也從消費信心增強中得益，以及避免經常受到嚴重食物事故和規管改革的影響。此外，消費者也有責任妥為貯存、處理和烹調食物。

## 追查食物來源

要成功執行食物安全法例，必須可以追查食物的來源，以及當食物可能危害消費者時，業界要負責從市場回收有關食物。營運者必須妥為保存記錄，方便追查。

## 風險分析


風險分析架構一直是監控食物安全的基礎。很多國家的食物安全當局均採用風險分析來制定國內的食物安全措施，並用以確保進口食物符合相同的標準，以保障公眾健康。所有食物安全監控制度的整體目的，都是以正確的科學原則和合適的風險分析為本的管理計劃，為所有監控和檢查工作提供有系統的方式，使當局能謹慎地確定檢查目標和管制資源。

## 統一食物標準

食品法典委員會是一個跨政府組織，統籌國際間的食物標準，其建議為世界貿易組織信納作貿易用途，而多國政府亦越來越多採納食品法典委員會的建議，用以訂定和修訂國家的食物監控制度政策和計劃。但是本港有很多食品可能未有食品法典委員會制定的標準，因而同時需要評估其他的食物標準。

## 法例

近期的法例與傳統上對食物安全事宜的處理和執法的看法有所不同。近期的發展是對食物安全採取橫向的處理方法，重點在於說明食物業應符合的一般原則和目標。這個食物安全理念的改變，使法例能着重於預防食物安全問題，而有別於過往被動地回應的方式。



food safety challenges. These agencies create a credible and visible body with the broad aim of increasing transparency, which in turn, bolsters public acceptance and confidence. Most of these authorities were established in response to the concerns of society stemming from major food safety incidents, which then translated into a major change in the policy within the national governments.

### Integrated approach to food safety

Food safety policies apply to the whole industry from “farm to table” and across all food sectors. The “through chain management” policies cover feed production, primary production, food processing, storage, transport and retail sale. This allows the food safety authorities to have control at source or to prevent the happening of food incidents at an early stage, as well as ensuring a prompt and effective response when food incident arises.

### Roles of stakeholders

It is necessary to provide a clear delineation of the responsibilities of the stakeholders. Primary producers and food operators have the primary responsibility for food safety whilst authorities audit this responsibility through surveillance and control systems. The increased collaboration between the Government and the food industry is a win-win situation. Administrations can better monitor the industry whilst the industry benefits from improved consumer confidence and not being subject to constant food crises and regulatory reform. Consumers are also responsible for ensuring that they properly store, handle and cook food.

### Traceability

Successful food safety enforcement demands traceability of foods, including obligations on the food businesses to withdraw food from the market when the food may be hazardous to the consumers. Operators must also keep adequate records to facilitate this tracing.

### Risk analysis

The risk analysis framework has been the cornerstone of food safety control. Many national food safety authorities use risk analysis as a tool in setting food safety measures for their population whilst ensuring that imported foods meet the same level of public health protection. The overall goal of any food safety control system is to provide a systematic approach to all control and inspection activities, through a managed programme based on sound scientific principles and appropriate risk analysis, leading to careful targeting of inspection and controlling of resources.

### Harmonisation of food standards

The Codex Alimentarius Commission (Codex) is an intergovernmental body that coordinates food standards at the international level. Codex recommendations, which are recognized by the World Trade Organization for trade purposes, are increasingly being used by governments to determine and refine policies and programmes under their national food control systems. It should be noted that many local food products may not have Codex standards, necessitating the assessment of other food standards in parallel.

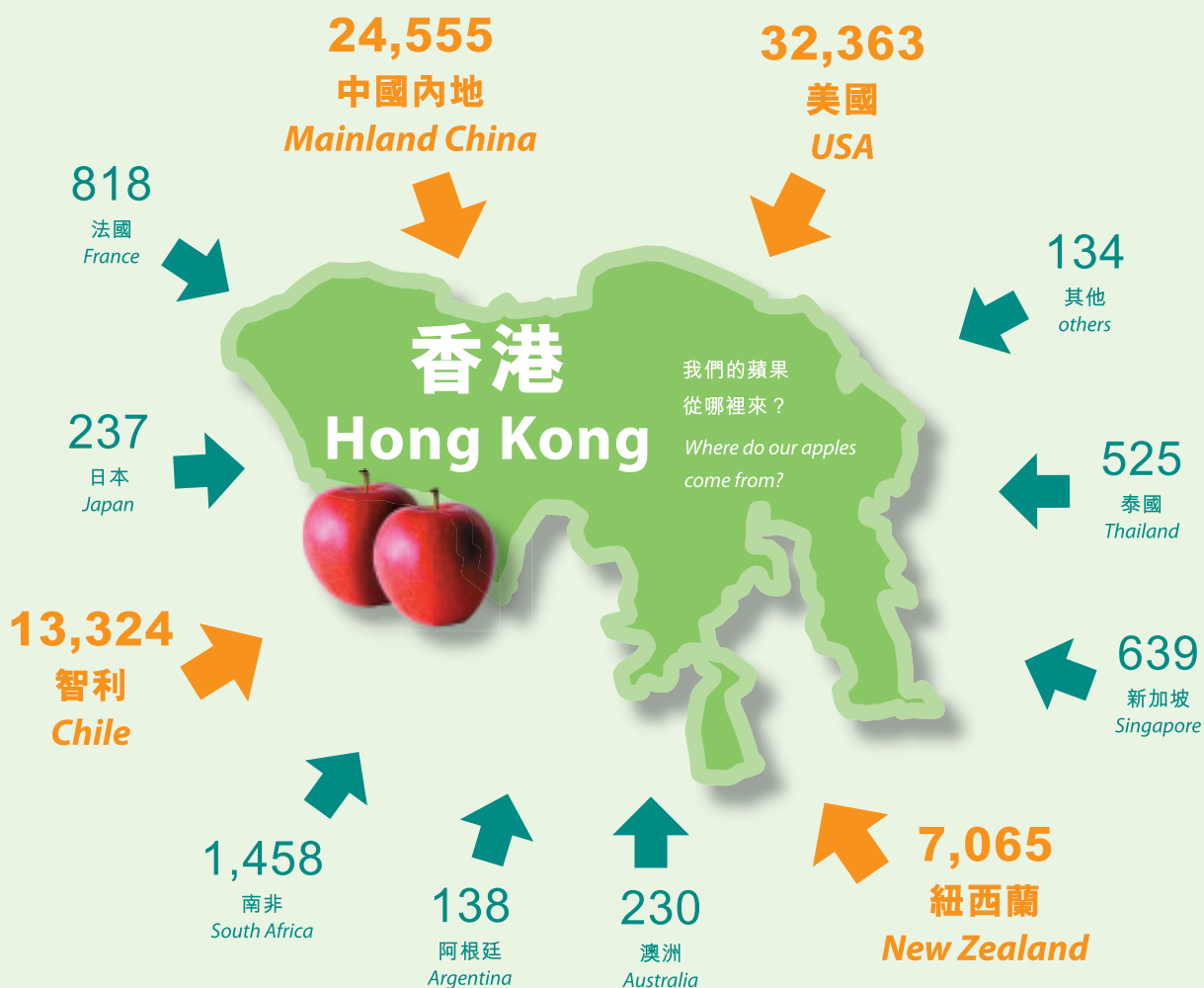


## 香港：七百萬人的 美食大都會

本港超過九成的食物都是進口而來，是一個不折不扣擁有國際產品匯聚的地方。舉例來說，在二零零六年，香港進口超過32萬公噸白米、17萬8千公噸豬肉和超過1,300萬隻活家禽。以每日計算，香港市民食用超過1,400公噸蔬菜、1,620公噸水果和400萬隻禽蛋。香港是自

由港，世界各地的食品都可運往香港。我們在有機會接觸各種食品之餘，在食物安全監控制度方面亦面對極大的挑戰。

沒有一個制度可以永遠不變，上文所述的國際趨勢，反映不斷有新的挑戰出現，我們因此需要一個能應付變遷的制度。中心不斷評估本港的食物安全制度是否有效，並緊隨國際趨勢，推行多項新措施以改善情況。以下各章闡述的進展，與國際發展的方向大致相同，將載述中心為確保本港食物安全而採取的方法和計劃。



身處自由港內，香港市民經常有機會享用來自世界不同地區的食品 (2006年數字，以公噸計算)

Being in a free port, the Hong Kong population is able to enjoy food products from around the world (Figures for 2006, in tonnes)

## Legislation

Recent legislation has departed from traditional views on the management and enforcement of food safety issues. Recent developments take a horizontal approach to food safety, outlining general principles and objectives that the food industry is expected to meet. This shift in food safety philosophy has enabled legislation to emphasise the prevention of food safety problems rather than taking the reactive approach of yesteryear.

## Hong Kong: a Gastronomic Melting Pot for 7 Million People

With over 90% of our food being imported, it is plainly obvious that in no place is the role of international produce more relevant than

Hong Kong. For example, in 2006, Hong Kong imported over 320,000 tonnes of rice, 178,000 tonnes of pork and almost 13 million heads of live poultry. On a daily basis, we consume over 1,400 tonnes of vegetables, 1,620 tonnes of fruit and 4 million poultry eggs. By its very nature as a free port, Hong Kong receives food produce from all over the world, which means both unequalled access to food varieties and challenges to the food safety control systems.

No system can ever remain static as new and emerging challenges demand an adaptable system, which are reflected in the international trends described above. The CFS has been continuously assessing the effectiveness of the local food safety regime, and has been embarking on many initiatives to improve the situation, in pace with international trends. The progresses of the CFS elaborated in the ensuing Chapters, which are broadly in the same directions as international developments, will present a clear picture on the steps and plans of the CFS, in realizing its goal of ensuring safe food for the community.

在二零零六年，  
我們每日食用：  
*In 2006, each day  
we consumed:*



1,620公噸水果  
*1,620 tonnes of  
fruits*



1,440公噸蔬菜  
*1,440 tonnes of  
vegetables*



50,000隻活家禽  
*50,000 heads of  
live poultry*



480萬隻禽蛋  
*4,000,000  
poultry eggs*



100公噸淡水魚  
*100 tonnes of  
freshwater fish*



280公噸海魚  
*280 tonnes of  
marine fish*



130頭活牛  
*130 heads of  
live cattle*



5,400頭活豬  
*5,400 heads of  
live pig*