Accreditation: Improving food safety

World Accreditation Day
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(#WAD2020)
Accreditation: Improving Food Safety

## Context
For consumers around the world, access to safe and nutritious food is an essential requirement for maintaining their overall health and well-being. The term food safety describes all practices that are used to keep our food safe. Food safety relies on all players involved in the supply of food, from farmers and producers to retailers and caterers.

Increasingly, there is an international aspect to food and water production as ingredients, products or parts of products, may come from several countries around the world, requiring more and more proofs of conformity to the requirements of the importing economies. Food producers also face pressure from regulators to reduce food waste and to be efficient in their use of natural resources such as clean water. Food producers are able to use the services of inspection bodies, certification bodies and validation/verification bodies to monitor and proof compliance to regulatory requirements.

Standards and accreditation are referenced in the WTO TBT Agreement and play an important role in trade facilitation. WTO reported that 30% of trade concerns discussed mentioned ISO, 12% mentioned IEC, and 10% mentioned ILAC. The appropriate application of standards and accredited conformity assessment therefore has the potential to resolve these concerns to the benefit of both industrialized and developing economies.

In April 2019, a Joint Statement issued by the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Trade Organization (WTO) stated that:

“Foodborne diseases have a significant impact on public health, food security, productivity and poverty. Nearly 600 million people fall sick and 420,000 die prematurely each year because of foodborne diseases, and 30% of foodborne deaths occur among children under five years of age.”

Accredited conformity assessment activities contribute to the prevention and treatment of the adverse effects of unsafe and adulterated food.

WHO estimated that 33 million years of healthy lives are lost due to eating unsafe food globally each year.

## The Role of Accreditation
It is important that the market has assurance that conformity assessment bodies operate to acceptable standards and this is the purpose of accreditation. The accreditation process determines, in the public interest, the technical competence and integrity of these organizations.

Conformity assessment is the demonstration that what is being supplied actually meets the requirements specified or claimed. Conformity assessment can be applied to a product, a service, a process, a system, a body or persons and includes activities such as testing, inspection and certification.

## Supporting Food Chain Security in Europe
European Regulation (EC) No 2017/625 relies on accreditation to support food security in Europe. It requires that all analytical results from laboratories that carry out official controls must be accredited in accordance with ISO/IEC 17025. It also extends to the whole food chain, with more specific rules for dealing with fraud, including the obligation of Member States to carry out regular, unscheduled checks to ensure integrity and authenticity throughout the food chain.

The requirements for accredited laboratories are reflected in Article 37, which directs the laboratory to include every one of the methods of analysis necessary for the realisation of Controls that are required, for example by operators.
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Testing and Calibration

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Certification

Certification bodies are accredited to carry out audits of food and feed handling sites throughout the supply chain, from farm to manufacture to restaurants and retail outlets. Accreditations awarded by IAF members include a number of national and international food safety schemes such as FSSC 22000, GLOBALG.A.P Integrated Farm Assurance (IFA), International Featured Standards (IFS), APEDA and ISO 22000. Only three schemes have gone through the rigorous IAF endorsement process: ISO 22000 (FSMS), GLOBALGAP IFA and FAMI-QS.

Inspection

Inspection bodies are accredited to carry out activities in the food industry such as pre-shipment, plant health, meat and slaughterhouses inspection.

Proficiency Testing

Proficiency testing providers (PTP) are accredited for the establishment and conduct of proficiency testing programs using ISO/IEC 17043. Proficiency testing is a tool used extensively in the food processing and production industries to help ensure food products are safe for human consumption.

Food Safety Schemes

The Global Food Safety Initiative (GFSI) improves food safety and business efficiency by ensuring the mutual acceptance of GFSI-recognised certification programmes across the industry, enabling a simplified “once certified, recognised everywhere” approach. This reduces inefficiencies from duplication of audits and helps reduce trade barriers. The GFSI Benchmarking process is now the most widely recognised in the food industry worldwide.

Feed Safety Schemes

FAMI-QS is designed for organizations that manufacture feed additives and/or supply individual components to the feed industry. It is designed to guarantee safety and good hygienic conditions throughout the entire food production chain, to include all components. The assessment provides manufacturers of feed components and suppliers from developing economies with an opportunity to demonstrate the safety of their processes and their conformity with the requirements of FAMI-QS.

Food Safety Supported by Accreditation in China

The administration of HACCP Management System Certification, published in 2002, as No.3 announcement by Certification and Accreditation Administration of the People’s Republic of China (CNCA) in Article 9, that the organizations that conduct HACCP Management System Certification shall be approved by CNCA and accredited by CNAS. By the end of 2019, China had issued 120,000 certificates in the food sector, involving tens of thousands of food companies, among which over 11,000 food production companies were certified for HACCP Management System Certification.
The production of food involves complex supply chains and processes requiring different types of accredited conformity assessment activities. A number of Food Schemes require certification for the production of crops, animal feed and practices involved with sourcing, harvest and slaughter. Industry and regulators require inspection and sample testing for other activities like storage, treatment and processing, and in turn packaging and distribution. The storage and display of food products in the retail environment also benefits from certification activities of stores’ services, processes and management systems.
Supporting Procurement Officials ensure the safety of the global food supply chain
Since food safety hazards may be introduced at any stage of the process, every company in the food supply chain must exercise adequate hazard controls. In fact, food safety can only be maintained through the combined efforts of all parties: governments, producers, retailers and end consumers.

Japan relies on accredited laboratories to test radioactivity levels in food
The issue of radioactive contamination in food caused by the Great East Japan Earthquake, March 11, 2011, has raised the importance of laboratory accreditation against international standards more than before.

The purpose of the ILAC Mutual Recognition Agreement (MRA) between accreditation bodies is to provide users assurance that equivalent accredited laboratories in other economies operate to the same standard as those in their own economies. The acceptance of test reports from accredited laboratories facilitates the trade of food products and reduces conformity costs.

The Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) issued the notification that laboratories accredited under ISO/IEC 17025 are reliable analysis organizations for the measurement and analysis of radioactive materials in food.

Accredited testing opens up meat export markets to UK products
Beef from the UK can now be exported to Canada after approval was given by inspectors, following work involving the Agriculture & Horticulture Development Board (AHDB), the Department for Environment, Food and Rural Affairs (Defra), the Food Standards Agency (FSA), UK Export Certification Partnership (UKECP), Quality Meat Scotland and HCC Meat Promotion Wales.

The agreement covered both primal cuts and manufacturing beef and UK officials have been working to ensure manufacturing beef is tested to the required microbiological standards required by the Canadian authorities. This process is now in place and has been robustly evaluated to United Kingdom Accreditation Service (UKAS) standards, allowing shipments to begin immediately.

Accredited Inspections support food safety in commercial catering in France
The application of the European Regulation (EC) No 2017/625 opened the way for the implementation of new inspection tools for food safety. Official inspections occur throughout the food chain to confirm facilities’ level of conformity. In accordance with regulatory requirements, the NF V01-015 standard relating to the inspection of hygiene levels in commercial catering facilities was issued in May 2016.
Regulatory requirements will specify to what extent the results of this inspection activity could be taken into account by the relevant authority in the framework of official inspections for food safety. Accreditation of inspection bodies will help ensure a high level of hygiene and, as a direct consequence, the protection of consumers.
Accreditation supporting the achievement of Sustainable Development Goals related to food safety

Accreditation, SDGs & food safety

Food safety is directly and indirectly linked to achieving many of the Sustainable Development Goals (SDGs), especially those related to ending hunger and poverty, and promoting good health and well-being. Food and nutritional security are realized only when the essential elements of a healthy diet are safe to eat, and when consumers recognize this. The safety of food is vital for the growth and transformation of agriculture, which are needed to feed a growing and more prosperous world population, for the modernization of national food systems, and for a country’s efficient integration into regional and international markets.

No Poverty

Foodborne disease (FBD) is a major cause of ill-health among the poor and is associated with a range of costs, including lost workdays, out-of-pocket expenses, and reduced value of livestock and other assets. The services of ISO/IEC 17020 accredited inspection bodies are used in different stages of the supply chain to detect unsafe food and monitor hygiene levels. Services of ISO/IEC 17025 accredited testing laboratories are used to test the samples taken from the supply chain.

Unsafe food has multiple complex interactions with nutrition. For example, toxins may directly lead to malnutrition, some of the most nutritious foods are the most implicated in FBD, and concerns over food safety may lead consumers to shift consumption away from nutritious foods. Product Certification bodies using the ISO/IEC 17065 audit the production and supply chain of diverse foods to establish conformity to the local and international schemes (e.g. GFSI Benchmarking Requirements).

Zero Hunger

The global health burden of FBD is comparable to that of malaria, HIV/AIDS and tuberculosis. The people most vulnerable to FBD are infants, pregnant women, the elderly, and those with compromised immune systems. ISO 15189 accredited medical laboratories have the competence to improve health services for patients affected by FBD. ISO/IEC 17021-1 accredited certifiers audit food safety management systems. Those systems ensure that the Hazard Analysis and Critical Control Points (HACCP) for food safety are well documented, implemented and monitored in the different stages of the food supply chain.

ISO/IEC 17065 accredited Food product certifiers audit products’ compliance to national and international food safety schemes.

GOOD HEALTH &WELL-BEING

Lack of clean water increases the risk of food being unsafe as infectious FBDs can be transmitted via water. Injudicious use of chemicals in food production can pollute water sources. Environmental, chemical and microbiological testing in ISO/IEC 17025 accredited laboratories using internationally agreed testing methods is well established to help improve water quality.
Inclusive food markets provide livelihoods and an opportunity out of the poverty cycle for many people. Preventing FBD allows workers to perform better and have a better opportunity to contribute to economic growth. The certification of persons according to ISO/IEC 17024 allows the valuation of the workers’ competence and provides employers a trusted tool for the selection of competent personnel. GFSI benchmarked schemes, which are recognized by the world’s leading retailers, provide food processors and manufacturers with access to export markets.

Many countries have immense potential for industrialization in food and beverages (agro-industry) with good prospects for sustained employment generation and higher productivity. Inadequate infrastructure in the food industry, including conformity assessment services, leads to a lack of access to markets, jobs, information and training, creating a major barrier to doing business.

The quality infrastructure is positively related to the achievement of social, economic and political goals. Accredited conformity assessment services support the efforts to upgrade the technological capabilities of the food industry and the development of sustainable and resilient infrastructure.

The Indian Food Safety and Standards Authority (FSSAI) relies on the National Accreditation Board for Certification Bodies (NABCB) accreditation to improve standards of food production. FSSAI has produced third party auditing regulations which prescribe NABCB accreditation for food safety audit agencies. Food businesses that receive satisfactory audit results may be subjected to less frequent inspection by Central or State licensing authorities. Third party audits will reduce the burden on the regulatory inspection conducted by Central or State Licensing Authorities and encourage efficient self-compliance by food-related businesses.

Hundreds of millions of people work in urban agriculture and food-related services. Vibrant traditional food markets and street food make important contributions to culture, tourism, and livable cities. Food inspection services are used to protect consumers and do allow the economic operators to ensure the sustainability of their business.
Accreditation supporting the global trade of safe food

Safe food is essential for nutritional security, human development, the broader economy, and international trade. The global trade of food, which has become highly complex and interconnected, now accounts for $1.5 trillion (Source: WTO).

The purpose of the International Accreditation Forum Multilateral Recognition Arrangement (IAF MLA) and ILAC Mutual Recognition Agreement (MRA) is to provide users with confidence in data and certificates via assessment of the technical competence and impartiality of conformity assessment activities. Accreditations granted by accreditation bodies that are signatories to the IAF MLA or ILAC MRA are accepted worldwide based on their recognised accreditation programs, reducing costs and adding value to industry and consumers.

Testing results, inspection reports and certificates in the fields of management systems, products (including processes and services), personnel, validation/verification and other similar programs of conformity assessment issued by bodies accredited by signatories are therefore relied upon in international trade. The IAF MLA or ILAC MRA contribute to the freedom of world trade by eliminating technical barriers. IAF and ILAC work together to find the most effective way of achieving a single system to meet the objective: “Accredited once, accepted everywhere”.

Accreditation improves the competitiveness of the Mexican Agrifood sector

The National Health Service, Food Safety and Quality (SENASICA) and the Mexican Accreditation Entity (EMA) work in partnership to coordinate efforts to promote the standardization and harmonization of procedures, requirements and related accreditation, and approval of certification bodies, verification units and testing laboratories. Accreditation strengthens the prestige and competitiveness of agrifood products produced in Mexico, which account for 6.2% of exports. Accreditation drives better performance and delivers a high degree in reliability of results.
WTO reported that global trade in food products has expanded more than threefold over the last two decades. Developing economies are increasingly participating in global food trade, both as exporters and importers. At the same time, global agricultural value chains have become complex, and food products are often grown, processed and consumed in different countries. While these trends have contributed to increasing the quantity and diversity of foods available to consumers throughout the world, they have also raised concerns with regard to the safety of the traded food and the costs of products conformity.

Consumers have the right to expect that both locally produced and imported food is safe. In this context, the development of international food safety standards for industry, testing, inspection and certification has become more important than ever before.

A 1% saving in trade transaction costs is estimated to result in a global trade benefit of USD 43 billion. The benefits are especially great in regards to the trade of perishable products, including fresh food. (Joint Statement by FAO, WHO and WTO - April 2019)

With over two hundred diseases spread through the food chain, it’s clear that safe, sustainable food production is one of our greatest challenges.

Accreditation supports food safety and food crime prevention

In response to the horsemeat scandal in Europe, the UK Government published a report to recommend that accredited testing, inspection, and certification provides a mechanism to ensure food integrity and to prevent food crime.

US Regulator uses accreditation to oversee imported food

The U.S. Food and Drug Administration (FDA) has adopted the use of accreditation in its oversight of imported foods. The FDA recognises accreditation under the voluntary Accredited Third-Party Certification Program. Accreditation bodies recognised by the FDA have the authority to accredit third-party certification bodies which, once accredited, can conduct food safety audits and issue certifications of foreign food facilities (including farms) and the foods – both for human and animal consumption - that they produce.
Accredited conformity assessment services reduce economic and public health burden

**World Bank**

The World Bank published a guide to avoiding the burden of unsafe food. The guide argues that much of the burden of unsafe food can be avoided through practical and often low-cost behavior and conformity assessment infrastructure changes at different points along food value chains, including in traditional food production and distribution channels. The absence of effective mechanisms for the accreditation and certification of businesses was identified as one of the problems in food safety capabilities in low and middle income countries.

The guide highlighted the need to ensure that food testing laboratory systems are internationally accredited, effectively networked, and financially sustainable. Where investments in testing capacity are made, strict attention should be given to quality control, through proficiency testing, staff training, and ultimately, accreditation.

**WHO Report on foodborne diseases’ burden**

The global burden of foodborne disease report conducted by WHO in 2015 was the first initiative on such an expansive global scale. The study has not only highlighted the impact of foodborne disease but also the need for action in order to address the issue.

**WTO Low and Medium income countries are the most affected**

The total productivity loss associated with FBD in low and medium income economies is estimated at US$95.2 billion a year. Of this, upper-middle-income countries account for US$50.8 billion, or 53 percent of the total. Lower-middle-income economies account for US$40.6 billion (43 percent), and low-income economies for US$3.8 billion (4 percent).

(www.iso.org)

**ISO Standards**

Conformity assessment is based on International Standards and schemes for food safety.

ISO has over 1600 standards for the food production sector designed to create confidence in food products, improve agricultural methods and promote sustainable and ethical purchasing.

Consumers in Poland protected from trichinosis through accreditation

Pork and venison produced in Poland are covered by the Trichinella monitoring programme. In accordance with the legal requirements, species susceptible to trichinosis infection are subject to mandatory testing - this concerns swine, wild boar and horse meat, among others.

Accreditation of laboratories involved in trichinosis diagnostics makes it possible to obtain reliable test results, and the procedures developed and implemented by the laboratories not only provide greater confidence in the results obtained, but also help ensure their comparability.

(www.iso.org)
Accreditation supporting the safety of meat products in Australia and New Zealand

The Joint Accreditation System of Australia and New Zealand (JAS-ANZ) supports PrimeSafe, the regulatory authority for the safety of meat, seafood and pet food in Victoria, Australia. A Food Safety Management Scheme (FSMS) supports PrimeSafe in its management of establishments’ compliance to the Victorian Meat Industry Act 1993, the Victorian Meat Industry Regulations 2015, the Seafood Safety Act 2003, and the Seafood Safety Regulations 2014 through accrediting conformity assessment bodies that audit the compliance of meat establishments to the prescribed standards.

The burden of foodborne diseases is substantial

Every year foodborne diseases cause:

- **Almost 1 in 10** people to fall ill
- **33 million** healthy life years lost

Foodborne diseases can be deadly, especially in children <5

- **420,000** deaths
- **1/3** of deaths from foodborne diseases

Foodborne diseases are preventable. Everyone has a role to play.

Resource information: www.who.int/foodsafety
#SafeFood

Source: WHO’s estimates of the global burden of foodborne diseases, 2011.

Many case studies on major outbreaks of foodborne disease or food adulteration scandals show that using accredited conformity assessment services allows a shift from reactive behavior to preventive and proactive systems in many countries around the world. Investing in a competent conformity assessment infrastructure aligns with the World Bank recommendation for sustained investments in prevention, including ones that build countries’ core competencies to manage food safety risks, and motivate and empower many different actors, from farm to fork, to act responsibly and with consumer health in mind.
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Find a Supplier
IAF “CertSearch” was launched in September 2019 during the Joint ILAC and IAF General Assembly. This database is a tool that supports procurement officials. The platform currently contains around 400,000 management system certificates from accredited suppliers and will allow purchasers to check if their potential suppliers hold such certificates. It will also help to distinguish between certificates issued by accredited management system certification bodies from the certificates issued by non-accredited certifiers, and to check the authenticity of a certificate.
www.iafcertsearch.org

Further Information
Accreditation provides a globally recognised tool to not only assess and control risks of the internal operation of businesses, but also the products and services that they place on the market. In this way, regulators, purchasers and employees can demonstrate confidence that accreditation delivers a safer world.

Visit https://publicsectorassurance.org/topic-areas/food-safety-agriculture/ to access research, case studies and supporting information relating to the benefits of accreditation in the delivery of food safety policy.
Visit www.businessbenefits.org for further examples of how businesses can benefit from standards and accreditation.