Food safety and risk analysis

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The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) have played a leading role in the development of food safety risk analysis. FAO and WHO recommended that the *Codex Alimentarius* Commission (CAC) incorporate risk assessment principles into its decision-making process. Risk analysis provides food safety regulators with the information and evidence they need for effective decision-making.

Overall, food safety is the responsibility, which has to be shared by all stakeholders involved in food chain, including Food Business Operator's (FBO), producers, regulators and consumers. However, governments are responsible for providing an enabling institutional and regulatory environment for food control.

Most developing countries already have some sort of food control system in place, usually based on hygiene and adulteration/fraud inspection (FAO, 2006). While these vary considerably, they usually incorporate food laws and regulations, food control management, inspection and laboratory services, and sometimes mechanisms for information, education and communication and monitoring of the food supply.

Modern food safety systems need to be science-based to effectively cope with, and respond to, the wide range of food safety challenges presently confronting countries. The increasing globalization of the food trade, urbanization, changing consumption patterns, the intensification of agriculture, increasing travel and tourism, and new types of production and manufacturing systems are just some of the trends that are having a serious impact on food safety in many countries.

Better scientific knowledge of the hazards that cause food-borne disease and the risks these hazards pose to consumers, combined with the capacity to take appropriate interventions, should enable governments and industry to significantly reduce food-related risks. However, the links between hazards in foods and illness in humans have sometimes been difficult to establish, let alone quantify and,

where they have been identified, interventions have not always been technically, economically or administratively feasible. Serious challenges therefore continue to face food safety regulators in many countries.