ENHANCING **FOOD SAFETY EARLY WARNING SYSTEMS** IN EAST AFRICA

KEY*facts*

FOOD CONTAMINATED WITH HARMFUL BACTERIA, VIRUSES, PARASITES, CHEMICALS OR POISONOUS METALS, CAN CAUSE AROUND 200 DIFFERENT DISEASES

FOODBORNE PATHOGENS (E.G. *SALMONELLA*, *CAMPYLOBACTER*, AND *ENTEROHAEMORRHAGIC ESCHERICHIA COLI*) CAN CAUSE SEVERE DIARRHOEA

CHEMICAL CONTAMINATION (E.G. MYCOTOXINS, MARINE BIOTOXINS, AND TOXINS) CAN CAUSE SEVERE POISONING AND LONG-TERM DISEASES, SUCH AS CANCER

UNSAFE FOOD causes considerable morbidity and mortality. More than 200 diseases are spread through food contaminated with bacteria, viruses, parasites, natural toxins, pesticides, and chemical or radioactive substances. Exposure to these contaminants can lead to infectious diseases, acute toxicities, cancers and developmental defects.

Millions of people fall ill every year and many die as a result of eating unsafe food or drinking contaminated water. For example, diarrheal diseases alone kill an estimated 1.5 million children annually (WHO, 2015. 10 facts on food safety).

FAO has estimated that at least 25 percent of the world's food crops are contaminated with mycotoxins, which are fungal toxins in crops (FAO, 2002). There is strong evidence of a link between exposure to aflatoxins - a foodborne mycotoxin - and liver cancer (WHO, 2003).

Food safety hazards can also spread through distribution of unsafely produced, processed or handled food and result in food chain incidents. Such events can easily occur in two or more countries and sometimes result in regional or global food safety emergencies.

Food safety incidents, beyond direct public health consequences, can have significant food security and economic impacts both in developed and developing countries. This is due to agri-food trade disruptions, losses of food and incomes, and health care and productivity costs.

It is crucial to detect and prevent spread of food safety hazards early.

This is why FAO is supporting East African countries to strengthen their food safety early warning systems.

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EARLY WARNING SYSTEMS (EW) ARE ESSENTIAL ELEMENTS OF FOOD CONTROL SYSTEM(S)

A NEW TRAINING PACKAGE ON EARLY WARNING CAPACITY BUILDING FOR FOOD SAFETY

An early warning system is an integral element of a food control system, working together with other elements such as food inspection, laboratory networks, surveillance programmes and risk assessment capacities.

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› EMPRES FOOD SAFETY *features*

APPLYING A NEW INTELLIGENCE TOOL "TO MAP OUT" COUNTRIES' AND REGIONS' GAPS AND NEEDS IN THEIR EARLY WARNING SYSTEMS FOR FOOD SAFETY

PROMOTING USE OF HORIZON-SCANNING TOOLS THAT GATHER DATA FROM DIVERSE SOURCES IN COUNTRIES AND REGIONS TO SUPPORT THEIR MEDIUM- TO LONG-TERM THINKING ABOUT FOOD SAFETY ISSUES

A SIMPLE CHECKLIST FOR ASSESSING AND DESIGNING EFFECTIVE AND EFFICIENT EARLY WARNING SYSTEMS FOR FOOD SAFETY

FAO EMPRES Food Safety

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To strengthen food safety early warning systems, FAO EMPRES Food Safety is:
› developing surveillance and intelligence tools for prevention of food safety incidents;
› guiding and facilitating development of early warning systems in food safety, including rapid alert and communication networks;
› supporting food safety emergency prevention, preparedness and response capacity building;
› promoting inter-sectorial and trans-disciplinary partnerships and collaborations among key food safety stakeholders at all levels of the food chain, using the principles of a One Health approach.

A new training package is being developed through which the above objectives can be accomplished. The training package includes a new, comprehensive handbook, which explains how to identify, assess and prevent future threats to the food chain before they become emergencies and cause adverse events and illness.

The handbook illustrates key early warning concepts using:
› a new tool for identifying gaps and needs in existing early warning systems for food safety;
› foresight techniques that can help identify food safety knowledge and research gaps and opportunities, to inform future surveillance and monitoring practices, or to assess the vulnerability of a food system;
› a horizon-scanning tool, which uses a structured approach of gathering data from diverse sources to provide organizations, countries or regions with intelligence to support medium- to long-term thinking (5-10-20 years ahead) about food safety issues.

The handbook includes a checklist that guides countries and regions through an evaluation of their needs, where to find support, planning an early warning

EAST AFRICAN WORKSHOP IN ACTION: PARTICIPANTS DEVELOPED SIX ACTION-PLAN PROPOSALS FOR IMPROVING EARLY WARNING CAPACITY IN FOOD SAFETY AT THE COUNTRY (ETHIOPIA, KENYA, RAWANDA, TANZANIA AND UGANDA) AND REGIONAL (EAST AFRICA) LEVELS.

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system as part of overall food control system, and ensuring sustainability.

The training package can be tailored to the specific needs and contexts of different countries and regions worldwide.

FAO'S WORK IN AFRICA

Two recent workshops, in Kigali (2012) and Addis Ababa (2013), identified many food safety challenges in Africa. Two initiatives were planned: 1) the creation of an African Union (AU) Food Safety Authority and 2) the development of an AU-Rapid Alert System for Feed and Food Safety.

Through a regional collaboration with the African Union-Inter-African Bureau for Animal Resources (AU-IBAR), FAO EMPRES Food Safety held a Regional Workshop on Enhancing East African's Early Warning Systems for Food Safety (Nairobi, 2014) to help East Africa develop proposals for building or improving existing food safety early warning systems.

All actions on early warning systems are done in partnership with regional bodies such as the AU-IBAR in Africa, and international partners and collaborators, and globally through WHO/FAO INFOSAN network.