Emergency Prevention System

Prevention saves lives
saves livelihoods
saves money

EMPRES Animal Health
EMPRES Plant Protection
EMPRES Food Safety

FOOD CHAIN CRISIS
Management Framework

EMMPRES
EMERGENCY PREVENTION SYSTEM

FAO
Billions of dollars could be saved by stepping up prevention and control of high impact animal diseases, plant pests and diseases and food safety incidents, some of which pose a direct or indirect threat to human health and the environment.

These threats invariably impact negatively people’s livelihoods, food security and economic development:

**Animal health**

Influenza viruses (e.g. H5N1, H1N1), foot-and-mouth disease, Rift Valley fever, African swine fever, *peste des petits ruminants* and rabies have recently raised alarm because of active spread.

**Plant protection**

Locusts, armyworm, fruit flies, banana and cassava diseases and wheat rusts are among the most destructive transboundary plant pests and diseases.

**Food safety**

Recent food safety incidents, such as *Escherichia coli*, hepatitis A contaminated green onions and semi-dried tomatoes, salmonellosis outbreak with peanuts, dioxin contaminated pork and melamine contamination of foods resulted in human morbidity and mortalities, trade disruptions and huge economic losses.

Controlling the 2003–2005 upsurge of Desert Locust in West Africa cost USD 400 million. Harvest losses were valued at USD 2.5 million.

Dioxin contaminated Irish pork in 2008 exposed consumers to dioxin up to 2,000 times over the safety limits. Economic losses were estimated at over USD 1 billion.

The 2002–2003 severe acute respiratory syndrome outbreak was estimated to have cost China, Hong Kong, Singapore and Canada around USD 50 billion.

Economic losses due to fruit flies are estimated to several million dollars per year.
Protection against animal and plant diseases and pests and food safety threats – and preventing their spread – is one of the keys to fighting hunger, malnutrition and poverty.

Prevention and early warning

The Emergency Prevention System (EMPRES) addresses prevention and early warning across the entire food chain. It promotes the effective containment and management of the most serious epidemic pests and diseases and food safety threats through international cooperation involving early detection, early warning, preparedness and timely reaction, coordination and communication, and capacity development.

This is achieved through three thematic systems:

- EMPRES Animal Health
- EMPRES Plant Protection
- EMPRES Food Safety

Early detection
EMPRES promotes event reporting.
EMPRES enhances the capabilities of laboratories and specialized units within the ministries of Agriculture.

Early warning
EMPRES monitors trends and tracks events.

Preparedness and timely reaction
EMPRES contributes to simulation exercises and practiced contingency plans.
EMPRES develops and introduces new and environmentally sound control technologies.

Coordination and communication
EMPRES ensures close collaboration and partnership with affected countries and national and international agricultural research centres and other international institutions, as well as inter-agency coordination.
EMPRES is at the centre of communication with all stakeholders, internally, across agencies and with the public.

Capacity development
Capacity development at the international, regional, national and local levels, ensures that EMPRES tools are operational and adapted to the needs on the ground.
The Emergency Prevention System (EMPRES) was established by FAO with the goal of enhancing world food security, fighting transboundary animal and plant pests and diseases and reducing the adverse impact of food safety threats.

EMPRES has proven that investment in emergency prevention is more cost effective, livelihoods saving and ecologically less devastating than responding to fully developed food chain crises.

National Locust Control Units in the Western Region of Africa

- EMPRES, through the FAO Commission for Controlling the Desert Locust in the Western Region (CLCPRO), has supported the establishment of National Locust Control Units within the ministries of Agriculture in Chad, Mali, Mauritania and Niger.
- Thanks to these National Locust Control Units, four desert locust outbreaks were successfully controlled, in Mauritania (2008, 2009 and 2010-11) and in Niger (2009).
- No external assistance was needed for these control campaigns.
- EMPRES good practices have been adopted. Combined with biopesticides, less pesticides are used during control operations.

Adapted to the food chain

EMPRES – Animal Health, Plant Protection and Food Safety – works with FAO members and other partners to prevent food chain emergencies.

EMPRES is a fundamental component of FAO’s Food Chain Crisis Management Framework (FCC). The FCC supports FAO member countries in the fight against threats to the human food chain – including animal health, plant protection and food safety – at all stages, from production to consumption.