

Emergency Prevention System



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EMPRES Animal Health



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EMPRES Plant Protection



©FAO/D. WHITE
EMPRES Food Safety



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Prevention

saves **lives**

saves **livelihoods**

saves **money**



Prevention

saves **lives, livelihoods** and **money**

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.



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The outbreak of *Escherichia coli* O104:H4 in 2011 took 50 lives in Germany, and 4 075 cases were reported in sixteen countries in Europe and North America.



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The global cost of H5N1 Highly Pathogenic Avian Influenza was estimated in 2005 at over USD 10 billion, yet losses continue today – as do human fatalities in a few countries.

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.

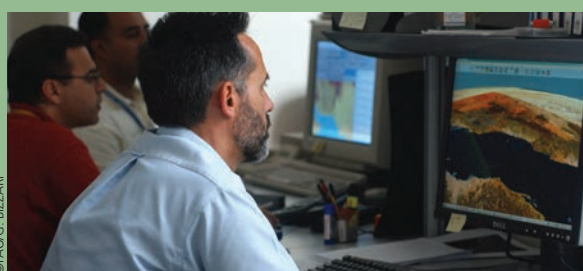
Protection against animal and plant diseases and pests and food safety threats – and preventing their spread – is one of the keys to fighting hunger, malnutrition and poverty.

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**



Monitoring global weather, vegetation and locust data at the FAO Desert Locust Information Service in Rome. Data arrives directly from field locations through GPS transmitting devices. Combined with global satellite data, it is analyzed by locust forecast experts.

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.

