FAO’s Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases

– EMPRES –

Animal Health Service, FAO, ITALY
Encouragement of sustainable agriculture and rural development

Long term strategy to increase food production and food security while conserving and managing natural resources

Provide a neutral forum where all nations can discuss and formulate policy on major food and agriculture issues
FAO

- Headquarters in Rome
- 187 members plus European Union
- **Decentralised FAO**
  - Five Regional Offices for Africa, Asia and the Pacific, Latin America and the Caribbean, the Near East and Europe;
  - Five Sub-regional Offices for Southern and East Africa, Pacific Islands, the Caribbean, North Africa and Central and Eastern Europe;
  - Five Liaison Offices in Geneva, Washington D.C., New York, Brussels, and Yokohama
FAO’s Strategic Framework recalled in the
FAO Medium Term Plan 2004-2009

A. Contribution to the eradication of food insecurity and rural poverty;

B. Promotion, development and reinforcing policy and regulatory frameworks for food, agriculture, fisheries and forestry;

C. Creating sustainable increases in the supply and availability of food and other products from the crop, livestock, fisheries and forestry sectors;

D. Supporting the conservation, improvement and sustainable use of natural resources for food and agriculture; and

E. Improving decision making through the provision of information and assessments and fostering of knowledge management for food and agriculture.
MTP

- FAO’s **Special Programme in Food Security** and the **Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases Prevention System (EMPRES)**.

- EMPRES-Livestock - within the Division of Animal Production and Health since 1994, but worldwide activities carried out since the 1940s.

- The EMPRES vision is:

  - “To promote the effective containment and control of the most serious epidemic livestock diseases as well as newly emerging diseases by progressive elimination on a regional and global basis through international co-operation involving EARLY WARNING and early detection, EARLY REACTION, ENABLING RESEARCH and COORDINATION.”
Early Warning
Early Reaction
Enabling Research
Coordination
EMPRES – Livestock

- Rinderpest and *Peste des Petits Ruminants*
- Foot-and-Mouth Disease – 7 diseases
- Contagious Bovine Pleuropneumonia
- Rift Valley Fever
- Newcastle Disease
- Lumpy Skin Disease
- Haemorrhagic Septicaemia
- Classical Swine Fever
- African Swine Fever
- Brucellosis and rabies …
EMPRES at Work

- **Africa** - ASF, CBPP, FMD, NCD, RVF, Veterinary Vaccines, surveillance systems
- **Asia** - FMD, PPR, RVF, Information Systems, Evaluations
- **America** - Hemispheric Plan for CSF eradication, surveillance systems (for FMD and CSF)
- **Others** - Balkans, Middle East, Iraq, China ... the main epidemiologist at PACE
Early Warning - Surveillance

- Investigation of suspect cases
- Inspection at feedlots and points of concentration
- Market inspection and knowledge of marketing schemes
- Understanding risk and focusing on points of disease entry and dissemination
- Serological surveys including wildlife
EMPRES at work

- Manual on disease surveillance
- Disease recognition Manuals
- Contingency planning Manuals
- CDs
- EMPRES Bulletin
- EMPRES web site
THE COMPONENTS OF EMERGENCY PREPAREDNESS

EFFECTIVE VETERINARY SERVICES
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EARLY WARNING surveillance with diagnosis
THE COMPONENTS OF EMERGENCY PREPAREDNESS

EFFECTIVE VETERINARY SERVICES

EARLY REACTION

EARLY WARNING surveillance with diagnosis
THE COMPONENTS OF EMERGENCY PREPAREDNESS

EFFECTIVE VETERINARY SERVICES

EARLY WARNING surveillance with diagnosis

EMERGENCY PREPAREDNESS ensured rapid reaction

EARLY REACTION

CONTINGENCY PLANNING
Good Emergency Management Practice

- GEMP in animal health is the sum total of organised procedures, structures and resource management that lead to:
  - early detection of disease or infection in an animal population,
  - prediction of the likely spread,
  - prompt limitation,
  - targeted control and elimination
  - with subsequent re-establishment of verifiable freedom from infection in accordance with the OIE’s Terrestrial Animal Health Code.
EMPRES
Emergency prevention system for Transboundary Animal and Plant Pests and Diseases

Livestock component

TADinfo
TRANSBOUNDARY ANIMAL DISEASE INFORMATION SYSTEM

Demonstration (Java version 0.2)

USER MANUAL for DEMONSTRATION VERSION
Disease

- Agent, Environment, Host
- Infection versus Disease
- Transboundary
- Multi-country
- Clusters, Regions, Continents
- Trade – legal and informal
- Information Systems – analysis
- Intervention Strategies
Movement of South Asian topotype O India-90 lineage
Global Framework for the Progressive Control of Foot-and-Mouth Disease and Other Transboundary Animal Diseases
**GOAL of GF-TADs = Vision Development Objective**

- To improve the protein **food security** and incomes of **developing** countries

- **Safeguard** the world livestock industry (of **developed** as well as **developing** countries) from repeat shocks of infectious disease epidemics

- **Promoting safe** and globalised trade in livestock and animal products
CONCEPT

Progressive control of transboundary animal diseases AT SOURCE as an International Public Good and within the Millennium Goals.
What are we aiming for?

A strong and working close partnership with Countries and Regional Organizations

- Strengthening Veterinary Services
- Paradigm shift in disease control by sound epidemiological knowledge
- Progressive control of disease
Programme Thrusts

- Global Strategy driven by the FMD Model
- Global Strategy taking lessons from the GREP experience
- Regional strategies owned and implemented by regional organisations and **Countries**
GF-TADs is Demand Driven

- World Food Summits (1996, 2002) and OIE 69th Session
- OIE and FAO as Governing Bodies
- Commitment by Heads of State and Governments
- Expectations from Society, Representative Organs and Learned Bodies
- Expectations from Regional Organisations
- Empowerment to the Member Countries
Country Veterinary Services

Trade Issues/SPS
- AH Code and Guidelines
- National Official Data Collection and Dissemination
- Certification
- OIE AH Information system: Early Warnings and monitoring
- Veterinary Services Standards
- Surveillance and Official Reporting
- Laboratory (methods and Standards)
- Capacity Building (*)
- Global Early Warning System (*)
- Coordinated Response to Emergencies (*)

Regional Commissions and Representations

Regional Specialised Organisations (RSOs)
PAHO, SADC, AU-IBAR/PACE, GCC, EUFMD, APHCA, ECO, AHCNENA, ...

Country Veterinary Services other National institutions, and NGOs

- Surveillance and Epidemiological Analysis
- Contingency Planning, Strategy Development and Emergency Preparedness
- Good Emergency Management Practices
- Comprehensive Livestock Sector Development: production, health and policy
- Improvement of National AH Services and Delivery
- Laboratories (support, targeted research and epidemiological surveys, technology transfer)
- Capacity Building (*)
- Global Early Warning System (*)
- Coordinated Response to Emergencies (*)
International Immediate Objectives

- FAO-OIE-WHO GLEWS for TADs
- Verification of freedom from rinderpest (GREP)
- Epidemiological definition of disease distribution
- Control strategies - developed with stakeholders
- International & Regional Early Response capacity
- International enabling research
- Technology transfer
- Facilitate standards setting by OIE
Regional Immediate Objectives

- Regional nodes for Early Warning
- Veterinary service rationalisation
- National and Regional capacity building for diagnosis and surveillance
- Surveillance for primary endemic areas
- Laboratory Networks
- Pilot disease control programmes
Regional Animal Health

- COSALFA - FMD
- CSF HP – (FAO)
- ECO
- EUFMD
- IICA
- OIRSA
- PAHO
- SADC
- SAARC
- ASEAN
- AU/IBAR

World Map showing regions and organizations involved in animal health.
Indicator diseases

- **Near East and North Africa** - FMD, rinderpest, PPR, and sheeppox
- **Tropical Africa**
  - FMD, rinderpest, CBPP, PPR, ASF, RVF, Newcastle disease
- **SADC**
  - FMD, CBPP, ASF, and Newcastle disease
- **Eastern Asia** - FMD, Avian Influenza, and CSF
- **South Asia**
  - FMD, Avian influenza, rinderpest, PPR, and Newcastle disease
- **Central Asia** - FMD, Avian Influenza, rinderpest, PPR
- **South America** - FMD and CSF
- **Central America & Caribbean** - FMD-free region, CSF
- **South-Eastern Europe** - FMD and CSF
Key epidemiological aspects of EMPRES and GF-TADs

- Disease at the SOURCE
- Infection at the source
- Hunting for the antigen rather than following the antibody
- Upstream investigation
- Epidemiology~Laboratory Networks
- Knowledge on animal production, land usage, marketing schemes, movement patterns ...

GLobal Early Warming System FAO-OIE-WHO
Key structural aspects of EMPRES and GF-TADs

- **Global Steering Committee** – FAO, OIE, donors
- Management Group
- **Regional Steering Committees and Coordination Units**
- Secretariat hosted by FAO
- GLEWS
  - Improve reporting obligations – OIE
  - Strengthen analytical and prediction abilities
  - Agriculture,
    - Use of lands / Production systems
    - Price differential,
    - Climatic changes
    - Refugee movements / migratory workers
    - demographics, ...
Key philosophical & implementation aspects of EMPRES and GF-TADs

- **Regional Organisations** ...
- Promote private sector investment
- **Empower** governments of member countries
- **Strengthen veterinary systems**
Conclusions and Closing Remarks

- From its inception in 1994, EMPRES has devoted itself and developed the basic building blocks required for GF-TADs.

- It has responded, with essential technical input from FAO/IAEA, to member country requests for emergency actions, contingency planning, laboratory infrastructure, software development, capacity building, and strengthening compliance for disease reporting.

- The IDG / EMPRES is honoured by the OIE and WHO to host the Secretariat for GF-TADs; but with only 5 professional staff, this too needs addressing by the donor community.

- Livestock and the importance of healthy animals for food production needs to be brought to the attention and prioritisation at the Ministry level so that a long term commitment to this Public Good is achieved.
Conclusions and Closing Remarks

- FAO gets its mandates from and is set its priorities according to the Ministers, and Heads of State and Committee on Agriculture (COAG). OIE entry point is at the CVO level – who are in turn given their mandate by the Ministry.

- FAO can only assist if there is a clear indication that Livestock are important to rural and National livelihoods: the initiative must be promoted by Ministers.

- The important role of the private industry – not only in the provision of services or pharmaceuticals – but their essential contribution in financial terms is also needed. As such, a mechanism that governments can assist in providing incentives to private investment should be sought.
Progressive Control of Transboundary Animal Diseases at the source is an International Public Good and within the Millennium Development Goals.