



International disease surveillance arrangements: plant health

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Food and Agriculture Organization

Agriculture organization

- reduced hunger
- improve food security

Component: Food safety, animal and plant health
(*Biosecurity*).

Intentional release or biological warfare operationally no
different from normal epidemics or plagues

A number of relevant treaties, protocols, conventions,
code of conduct,





Primary sectors

Food safety

- Codex Alimentarius / WHO (**capacity building**)

Animal health

- FAO / OIE / WHO
- zoonotic diseases (**capacity building**)

Plant health

- IPPC (**capacity building**)

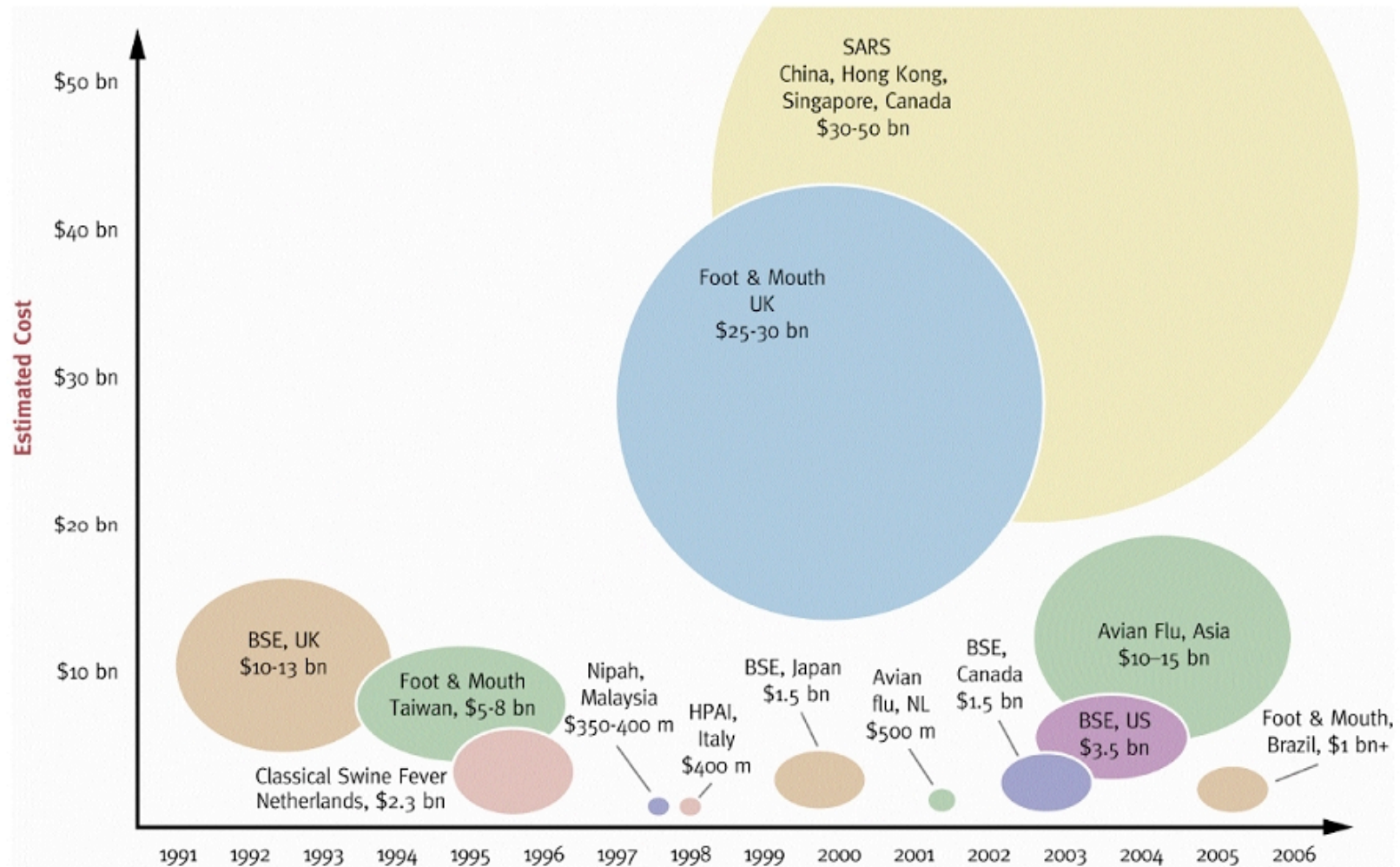
Many additional international partners e.g.

- National and international aid agencies
- WTO (SPS Agreement), CBD (UNEP), WB, GEF



Animal Health

FIGURE 1: Economic Impact of Selected Infectious Diseases: Recent Livestock Disease Outbreaks and SARS

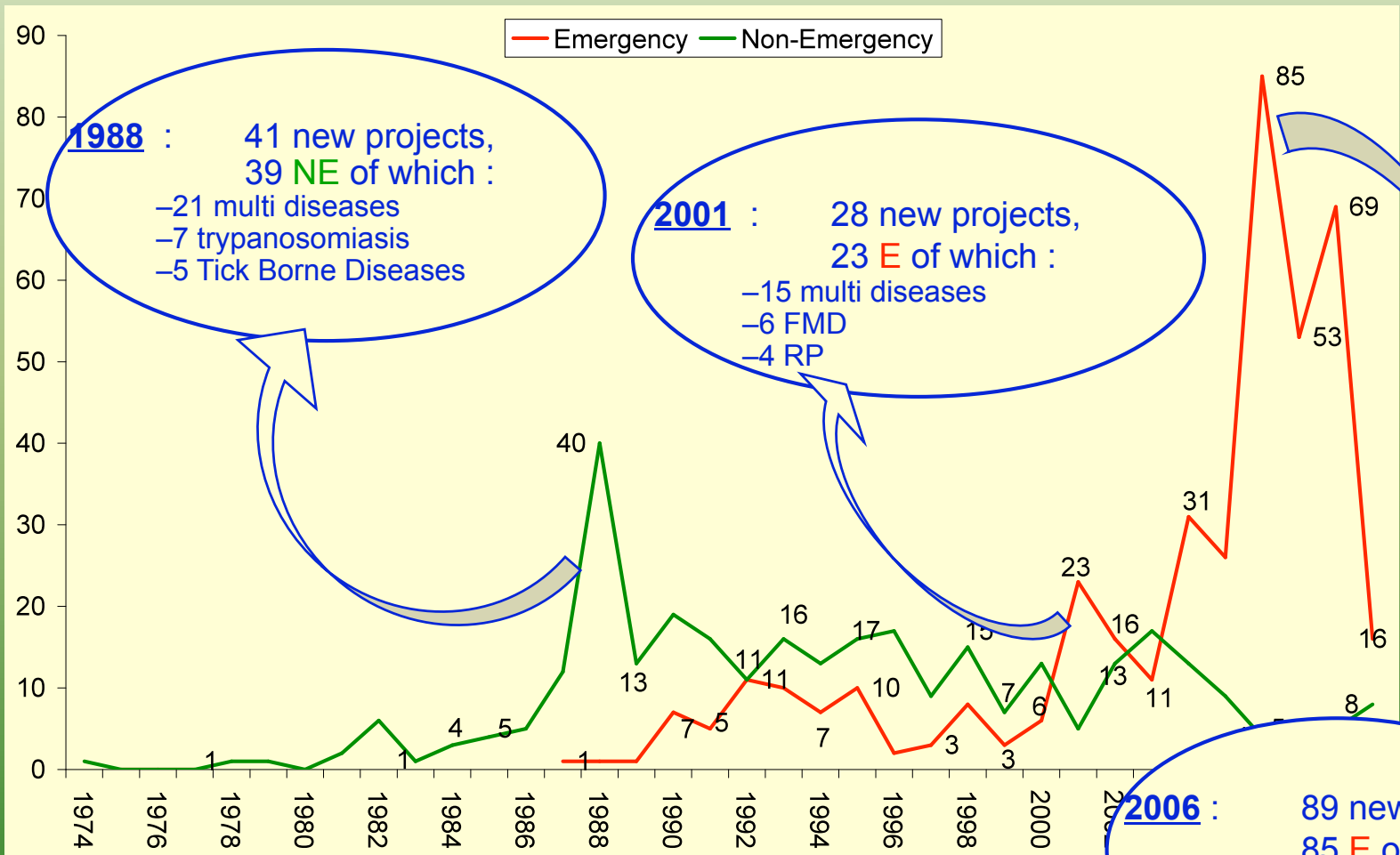


Figures are estimates and are presented as relative size.





Project trend



1988 : 41 new projects,
39 NE of which :
-21 multi diseases
-7 trypanosomiasis
-5 Tick Borne Diseases

2001 : 28 new projects,
23 E of which :
-15 multi diseases
-6 FMD
-4 RP

2006 : 89 new projects,
85 E of which :
-69 HPAI
-19 multi diseases





Plant Health

Number of broad but related areas

- Transboundary pests (EMPRES – locusts)
- IPM (sustainable systems and biocontrol)

IPPC (transboundary movement)

- 173 contracting parties
- def. of pests & scope (environment)

Institutionalization

- framework (commitment and legislative), resources, facilities, cooperation of all stakeholders

Technical assistance





Plant Health Capacity building

ISPMs

- pest risk analysis (PRA): pathways & commodities
- surveillance, monitoring
- reporting, including global information exchange
- diagnostics
- certification (revising) & non-compliance
- emergency response / contingency planning

National capacity

- variable
- *very poor* compared to animal health





Challenges

Large number of hosts

Very large number of pests

Rel. environmentally sensitive

Rel. strong varietal variation (environ. & expression)

Staple foods not central to all countries economies

No such thing as a global plant pest list

- **very artificial & favours developed / export economies**
- **minor pests have greater impact in many small countries (e.g. SIDS) than major pests of staple crops**





Plant Health Resources

**Basic framework & some capacity is in place but
“desperately” short of resources**

- **no direct affect on human health i.e. major indirect effects:
food security, family income & hunger, environment**

AI: USD 264 million

**Locusts: 2003 – 05 about USD 300 million (not all
through FAO)**

All other plant health together (FAO): USD 2 million





Potential impacts

Impact of new pests:

- **RIFA: USD150 million (8yrs), another USD 110 million (5yrs)?**
Potential loss was estimated at USD 4.5 billion over 30 yrs
- **Papaya FF eradication: USD 80 million & 5 years**
- **100s of examples like this around the world**

Long term effects & enormous management costs or impacts

Environmental sabotage





Impact of plant health CB

Desert locust in Africa

- **1985-6 plague cost USD 900 million to control (today's value)**
- **North/western region: little capacity building until 2001**
- **East/central region: USD 12 m over 10 years in CB**
- **2003-05 plague**
 - **North/western region USD270 m + USD 120 m in food aid**
 - **East/central region USD 7 million**
- **2007 Yemen: worst outbreak = 4 months to control**





Lessons learnt

Highly cost effective to build capacity *before* anything happens

Donors support wanes drastically after 5 – 10 years when it is needed most

- AI is now going to enter this phase but H1N1

Emergency response is good for donors and get good PR

- not seen sustainability yet
- sustainable rehabilitation key (overlap & expansion to other key diseases)

Expand and build on existing systems

- cross sector e.g. ministries & industry

Residual problems e.g. obsolete pesticides





FAO focus

Reform: high impact areas

- animal health, food safety and plant health key

Work within existing frameworks / structures / projects

- regional and national

Far greater cooperation needed

Less focus on short-term gains and PR

- have to address fundamentals in order to be able to implement Article X
- continuous low level preparedness

Existing & ongoing challenges are preparing us for an eventual biological attack or deliberate release





Animal Health

Plant Protection

Food Safety

Intelligence & coordination

Risk analysis, intelligence, advocacy
Longer-term and global risk analysis along the food chain
Coordination

Prevention & early warning

**EMPRES
animal health**

**EMPRES
plant protection**

**EMPRES
food safety**

Response

**Animal Health
(ECTAD)**

Plant Protection

Food safety





Future

Bioweapons

- what is real? Bandwagons.
- perceived reduced credibility
- research and defense driven?

Communication

- build on what you have

Increased variables

e.g. Development funding, Climate change, Population expansion,
Conflicts, Water shortage, Biofuels

Developed vs developing economy needs

- systems that security community can enhance

