

# Transboundary food supply chain interruptions

Jeroen Warner (DIS)  
Kees Burger (DEC)  
Social Sciences Group  
Wageningen University

# Supply-chain risk and vulnerability

- Natural, economic or political shocks
- Globalisation: 'longer paths, shorter clock speeds' (Saad/Kleindorfer)
- In European livestock sector 90% of soy is imported, high animal concentration amplifies outbreak
- No central regulator, private action dominates; public sector is 'regulator of last resort'
- Food not internationally 'securitised' and therefore famine response late
- MENA countries seem extra vulnerable
- Power unevenly distributed across the chain

# The Supply Chain Funnel in 6 European countries

The Supply Chain Funnel in 6 European countries (Grievink)

Consumers	160.000.000
Customers	89.000.000
Outlets	170.000
Supermarket formats	600
Buying desk	90
Manufacturers	8.600
Semi-Manufacturers	80.000
Suppliers	160.000
Farmers/producers	3.200.000

# Guiding supply-chain risk categorisation

- Svensson:
  - Atomistic vs. Holistic
  - Quantitative vs. Qualitative

# Food sector

- Interdependence: perishability; immediate health impact
- All partners involved, increasing need for regulation
- Private firms have strict procedures; trend to vertical integration
- Neither companies nor governments may have adequate contingency plans coordinated with sector
- Governments rarely take into account that they are also chain leaders or chain members when there is no crisis.
- Intragovernmental competition: in NL, Agriculture trumped Health in Q fever scandal

# Quality vs quantity issues

- Quality
  - Richer countries
  - Private regulation
  - EHEC, BSE, melamine, dioxin
  - Hard to trace
  - High stakes
  - Focus upstream (production)
  - Holistic agreements
- Quantity
  - Rich and poor
  - Public attention/regulation
  - Little 'slack'
  - Wave-like impact: takes years
  - Infrastructure is key
  - Atomistic agreements

# Improving chain coherence

- Neglect of *ex-ante* (precaution) vs. *ex-post* (recovery, compensation) co-ordination between links in chain
  - Importance of nodes:
    - Small of the food trade hourglass: companies too big to fail?
    - Logistics: specialised and vulnerable (ports)
- > **Nodal governance**

# Compare: international water regimes

- Quantity (flood, low flow)

Highly controlled

Limited # of Bottlenecks  
(infrastructure)

Strong role for  
governments

- *Quality (pollution)*

*Some steps to 'total control' in water company chains*

*Diffuse pollution and control*

*Scientific community, press as watchdogs*

Some lessons...