Addressing Pandemic Disease Threats

Shifting the focus from emergency response to prevention at source

Summary of discussions at the Chatham House Seminar Strengthening Collaboration between Wildlife, Livestock and Human Health Sectors, 16-17 March 2010
The need for a fundamental shift – From response to prevention

• To date, efforts to combat outbreaks of infectious diseases at the human/animal interface have tended to centre on the human health sector
  – Detection in humans, tracing back to source, attempt elimination in human and animal populations

• Focus is increasingly shifting towards prevention
  – Attempts to better understand the dynamics of infectious diseases in animals and to attempt to identify those infections that pose potential risks to humans
  – One Health approach – coordination between human, livestock and wildlife health sectors

• An effective One Health approach requires shifting the focus even further upstream, to addressing the underlying factors influencing disease emergence and spread, but that may not traditionally be seen as related to animal and human health.

• These factors are changing the frequency, geographical range & manner of interactions between animals and humans.
  ➔ Human-induced changes in natural landscapes, urban areas, agricultural systems
  ➔ Global changes related to trade, migration, climate change
Examples of underlying factors shaping disease emergence and spread

- **Environmental stewardship** decisions around such issues as land use planning, watershed management, deforestation and wildlife and habitat conservation.
- **Livestock production practices**, both on the industrial and small-holding levels.
- **Trade of wild and domesticated animals** and their products.
- Urban planning
- **Incentives for disease reporting** and compliance with control efforts.
- Health education, **risk communication** and incentives to modify human behaviours that increase risk of exposure.
- **Commercial attractiveness** of developing livestock diagnostic tests, vaccines and medicines.
- **Impacts of climate change** on animal and human migration, shifts in agricultural areas, weather patterns and water quality and availability.
- For example…
Feasibility studies needed to prioritise interventions, determine funding and define roles.

• **Technical**
  – Mobilise technologies for disease prevention
    e.g. *tracking & surveillance*, innovation in food systems, *pharmaceutical industry*, mapping & planning
  – Address issues around access to information and technologies
  – Cross disciplinary workforce training

• **Institutional**
  – **Solidify alliances** forged during recent emergencies
  – Develop new modes of *inter-sectoral cooperation*
  – Assign roles and responsibilities
  – **Greater engagement of additional sectors and actors**
    e.g. land-use planning, watershed management, climate change adaptation, social sciences, Ministries of Finance, Planning & Foreign Affairs, private sector, media, emerging powers
  – **Incentives for greater cooperation**, esp. for livestock producers
Feasibility (cont.)

- **Financial**
  - Restructure funding architecture to **direct funds at prevention**
  - Establish cross-sectoral funding opportunities
  - Identify funding sources and mechanisms
  - Cost-effectiveness analysis

- **Political**
  - Articulate **clear messages that politicians can respond** to
  - **Adapt response strategies** to local, national and international contexts
  - Identify and reconcile varying priorities
  - Minimize negative social, economic and environmental impacts
  - Acknowledge that different sectors – and actors within them – will have different priorities
  - Demonstrate how addressing underlying factors to shift toward prevention could benefit all sectors
Building political support, measuring progress

• Need to translate the long-term vision into manageable milestones – including a clear articulation of costs and benefits associated with each step in the process.

• Criteria for measuring progress also need to be established and responsibility for evaluation and ensuring accountability must be assigned.

• Achieving the necessary level of cooperation will require understanding and highlighting why it is in the global, national and individual interests of all involved – be it for economic, health-related, social or environmental reasons – to engage in prevention strategies that tackle diseases before they can cause significant harm to global security.