FAO

HPAI Socio-economic Programme

Indonesia
Background to FAO’s socio-economic programme

- Two economists at global level
- Three regional coordinators
  - East Africa
  - West Africa
  - Asia (Bangkok)
- Country level staff (Egypt, Indonesia, Myanmar and planned for Bangladesh and Nigeria)
What we do

- Cost estimations and cost effectiveness of HPAI surveillance
- Economic analysis inputs to the HPAI epidemiology (value chain analysis to support risk assessments)
- Costs and cost effectiveness of HPAI control measures (culling and compensation, vaccination, quarantine, biosecurity measures)
- HPAI impacts - market and livelihoods in order to plan policy change and rehabilitation measures
Socio-economic projects in Indonesia

- Livelihoods study (Jakarta)
- Strengthening bio security & incentives (Bali)
- Compensation strengthening
- Industry restructuring
- Market chain studies (Medan, Bali, Jakarta)
What is a market chain study?

Processes; Places; People

• Market chain studies detail the volume and value of birds and other inputs as they pass along the production process.

• They describe the places where each process occurs and the people involved.

• They can describe the governance arrangements between stakeholders along the market chain.

• They include HPAI risk assessments (virus transmission, amplification, human contact) focused on networks and linkages in the market chain that provide opportunities for transmission of disease within and between sectors.

• They can map control measures.
N. Sumatra: Duck chain

Potential contact points with chickens

- Live birds
- Carcass/meat
- Eggs
- Other

Large farm
- DOD, pullet
  - >3K bird, <2%
  - 100-3K bird, 8%
  - <100 bird, 90%

Small farm
- DOD

Backyard farm

Poultry shop

Rural
- Rural
- Collector
- Traditional market
- Large collector
- Large farm

External
- Aceh
- Riau
- W. Sumatra
- Peking duck, <2%
- Penang, Malaysia

Urban/rural
- Supermarket
- Consumer
Market Chain Methodology

• Study parameters set through preliminary workshop with stakeholders identified market chains, focus districts, key ‘actors’.

• University of North Sumatra contracted to conduct market chain survey (470 respondents in 13 districts using 26 enumerators)

• Study methodology presented to provincial and district livestock officers at workshop

• 8 market chains analyzed (broilers, layers, Kampung chicken, Duck, Quail, Pet birds, Feed, Manure)

• Results presented to provincial and district livestock officers at workshop

• Advisory group established (FAO, regional livestock services) to oversee and advise study implementation
Appropriately developed value chain maps will allow following types of analyses:

**Epidemiological evaluation of risk concentration:**
- Where in the chains do HPAI outbreaks concentrate?
- Where in the chains do risks concentrate? The focus may be on the risks of outbreak in HPAI endemic countries while risks of virus introduction would be the main concern in disease-free countries.

**Evaluation of the current and alternative public/private strategies for preventing and controlling HPAI outbreaks:**
- Are they epidemiologically effective?
- What are the socio-economic impacts on the poultry industry and actors in the industry?
- Are they compatible with private incentives so a high level of compliance can be achieved?
- Will it improve the overall biosecurity level of the industry?
- What will be the impacts on the industry’s output, both in volume and value?
- Will vulnerable groups of actors in the industry be hurt by restructuring? Will they be excluded from the market?
Strengths

- Market chain maps are visually communicative
- Market chain mapping approach enables collaboration of experts from various disciplines including economics and epidemiology, from which more comprehensive policy implications can be drawn

Weaknesses

- Too much information on maps and/or too many maps dilutes their effectiveness for communicating to policy makers
- Existing studies have not mapped control measures or relationships adequately (time and resource constraints)
- Overly aggregated information in maps not suitable for detailed control measure planning e.g. industry restructuring
- Each map can only show limited number of links
Influencing policy
(or how to stop your research report from gathering dust on a shelf)

- District & provincial level officials from MoA and KOMNAS participate in review of study methodologies to get initial ownership/buy-in
- District & provincial level officials from MoA and KOMNAS are involved in developing results/recommendations from the studies
- Results presented to prov. & district policy makers at final workshop
- Summary of recommendations feed into revision of the 3 year National HPAI control strategy
- Key to identify & involve “policy champions” who can influence policy e.g. one of the GoI/MoA official managing FAO livelihoods study is a speech writer for Minister of Agriculture.
- Market chain studies ideally to feed into and guide new/existing government programmes/policies
- “The use of poultry market chain mapping in developing HPAI control programmes” to be presented at World Poultry Congress in June 2008, Brisbane.
Key recommendations from Medan

High risk points = potential entry points for HPAI control programmes identified with provincial officials

- Low level of HPAI awareness among particular groups (lowest for collectors, slaughter point workers) = Need for targeted awareness raising
- Proliferation of slaughter points (3,000 +) = Need for consolidation
- Pivotal role & large numbers of collectors + low levels of awareness of HPAI= Support formation of more formal Collectors Associations (increased awareness and involvement in passive surveillance)
- Low levels of bio-security (only 20% backyard producers apply, 35% of collectors)= increased bio-security promotion by DINAS
- Trade in DOC between from Java/Malaysia to N. Sumatra= review of cross border and cross provincial border control
- There is a market (chain) in unprocessed poultry manure= encourage processing of manure on site to decrease risk