



Building Bridges, Supporting Livelihoods



# Livestock Sector Trends in the Asia-Pacific Region – Directions for APHCA?

V. Ahuja, J. Otte, C. Benigno & V. Songkitti

APHCA Strategy Workshop

Bangkok, 8 March 2012

## Outline

- Past livestock sector performance
- Future demand for livestock products
- Foreseeable consequences



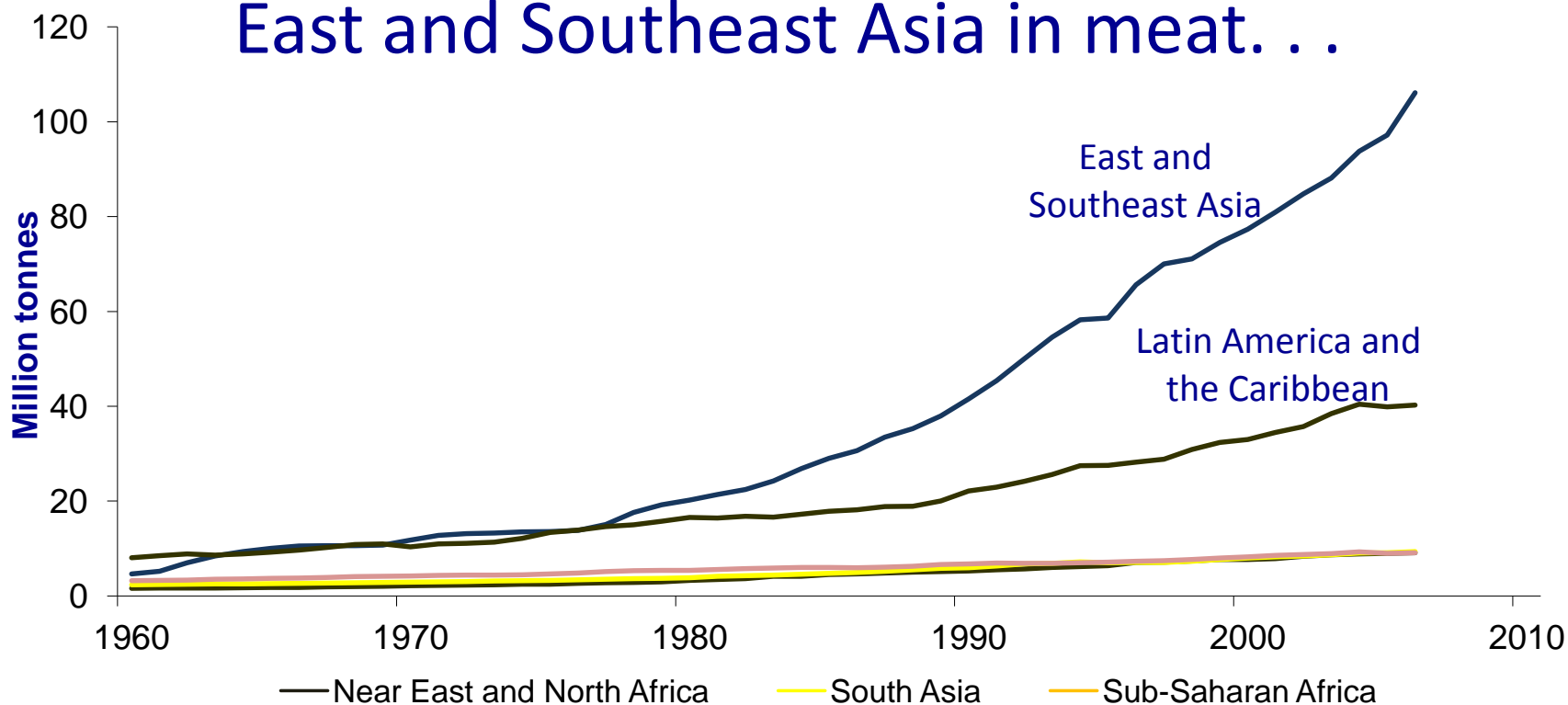


# Why worry about livestock?

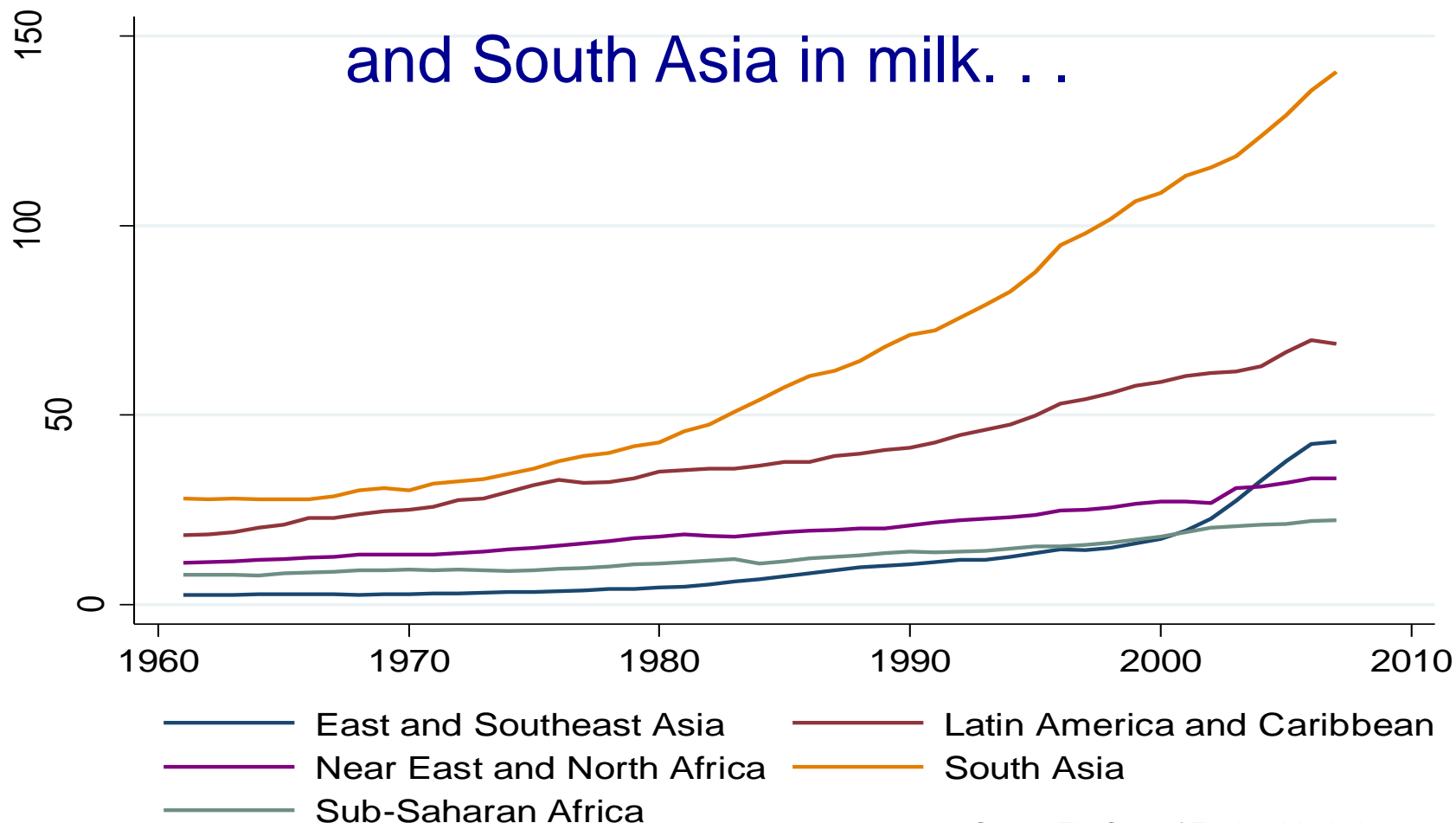
- Large, growing, dynamic sector
- Public goods at risk
  - Livelihoods and food security
  - Natural resources and the environment
  - Human, animal and 'eco'-health
- Need for better policies, institutions and regulations
- Conflicts and trade-offs

# Asia has led the 'Livestock Revolution'...

## East and Southeast Asia in meat. . .



Source: *The State of Food and Agriculture 2009.*

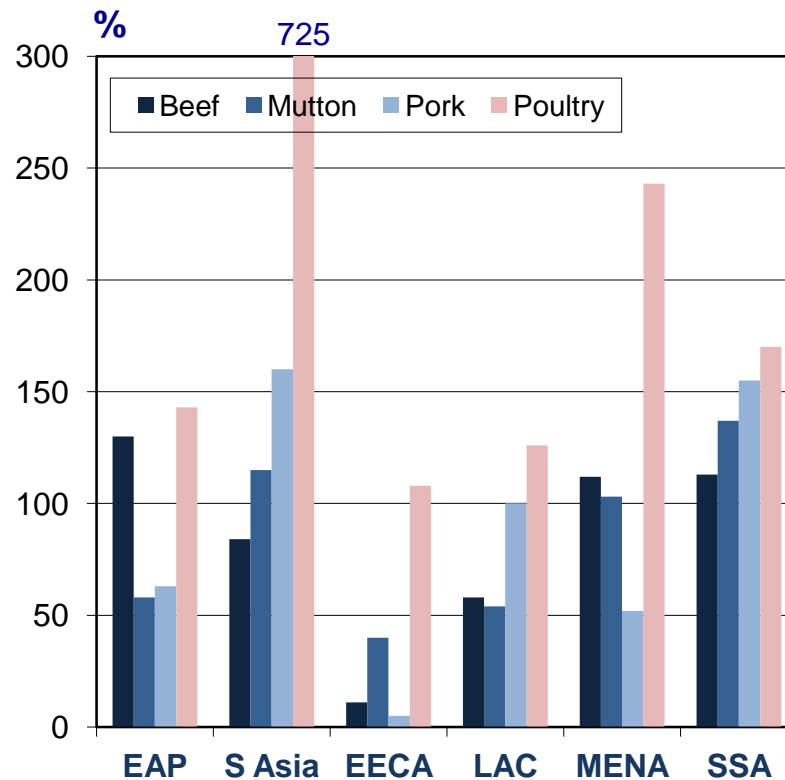
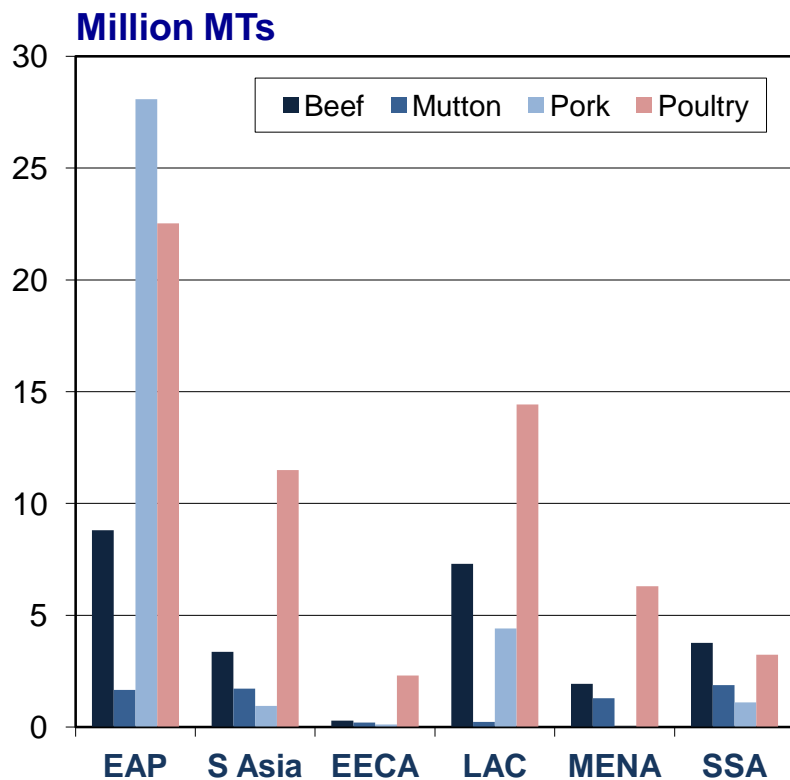


Source: The State of Food and Agriculture 2009.



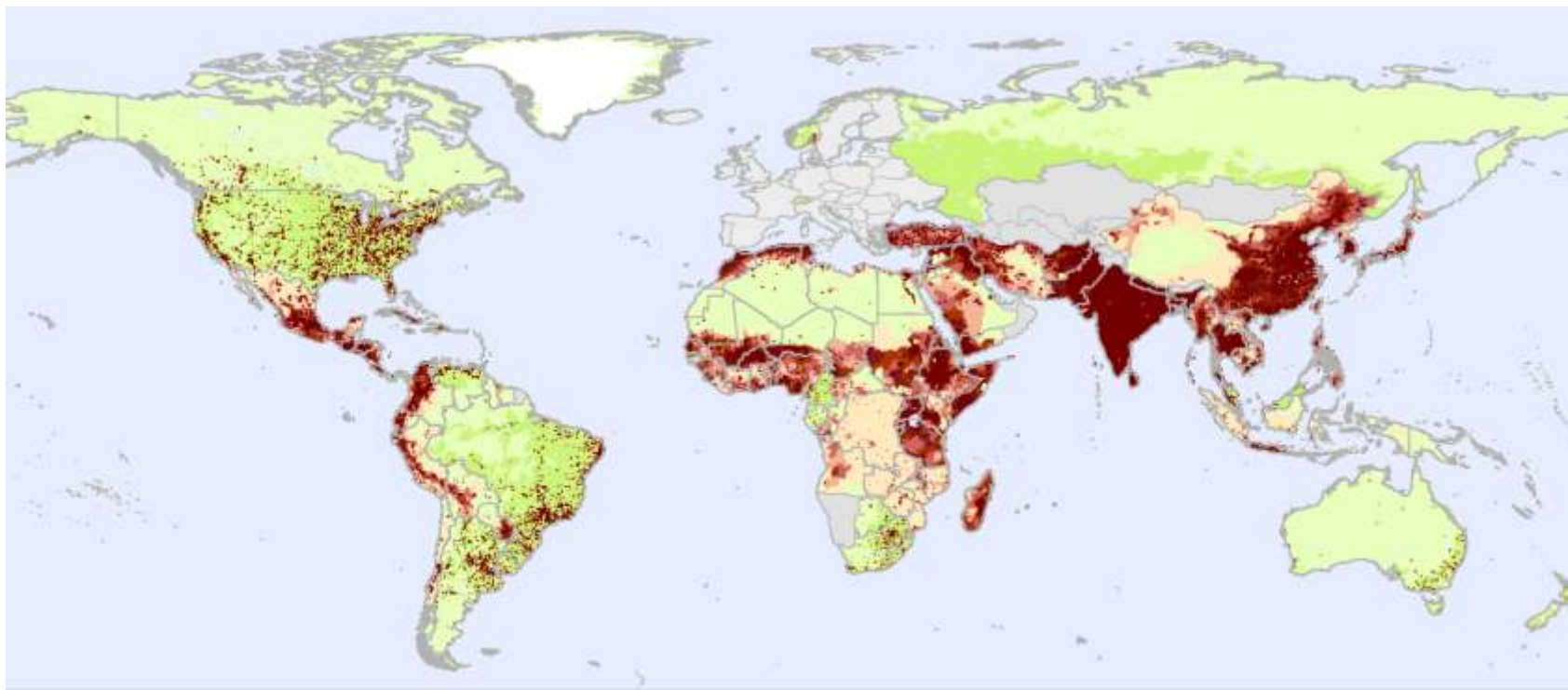
But demand growth for livestock products is huge and expected to outpace production growth !!

# Demand Growth 2000-2030: Meats

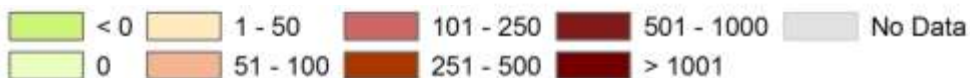


Source: FAO Projections

# Demand Growth 2000-2030: Milk



Demand growth in kg per sqkm



Source: *Robinson and Pozzi, 2011*





## Demand growth is occurring against a backdrop of ....

- Limited arable land (and soil degradation)
- Increasing water scarcity (absolute & relative)
- Growing levels of pollution
- More extreme weather events
- High population densities and progressive urbanisation
- (Still) Large numbers of food insecure people

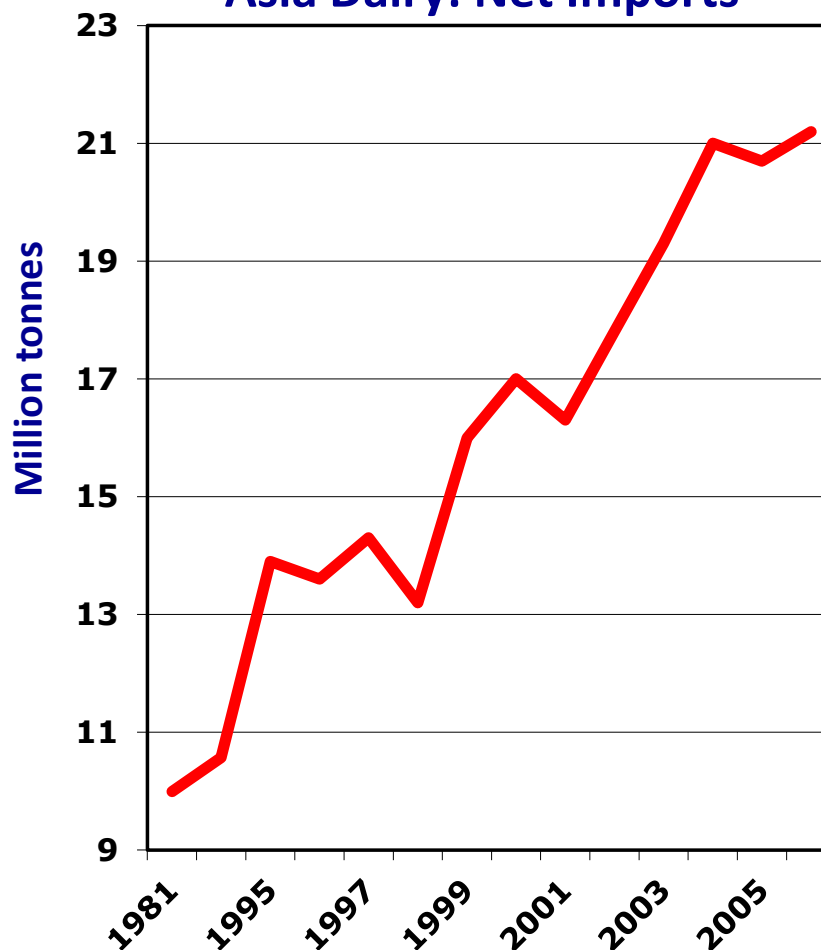


## The consequences are dramatic

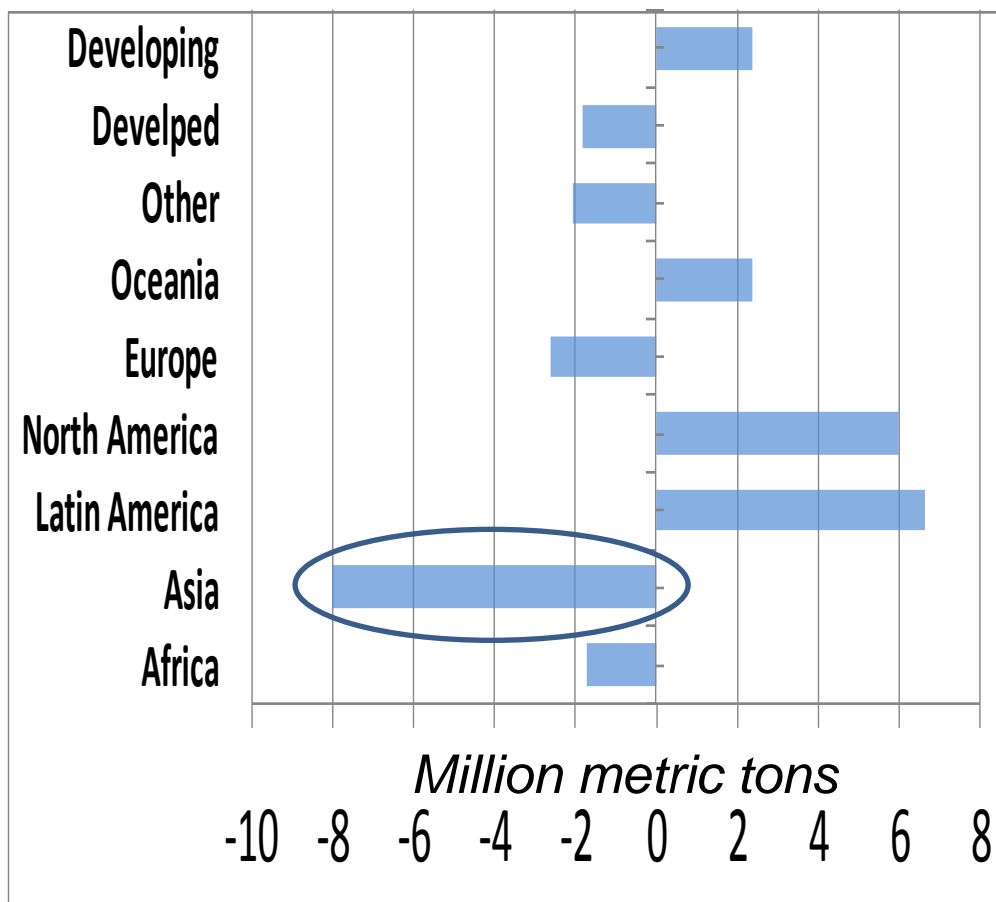
- Rising import dependency (food & feed)
- Rising and volatile food & feed prices (food, feed, fuel competition)
- Increased risk of emergence and spread of contagious diseases (some of zoonotic nature)
- Pressure on livestock sector to increase supply but “green”, “safe” and “socially acceptable”

Despite rapid growth in production Asia emerging as key importing region...

Asia Dairy: Net Imports



# Net Meat Trade Status, 2008



**Key Importing Regions:**

**Asia: 40%**

**Europe: 22%**

**N. America: 10%**

**Key Exporting Regions:**

**N. America: 30%**

**Latin America: 30%**

**Europe: 13%**

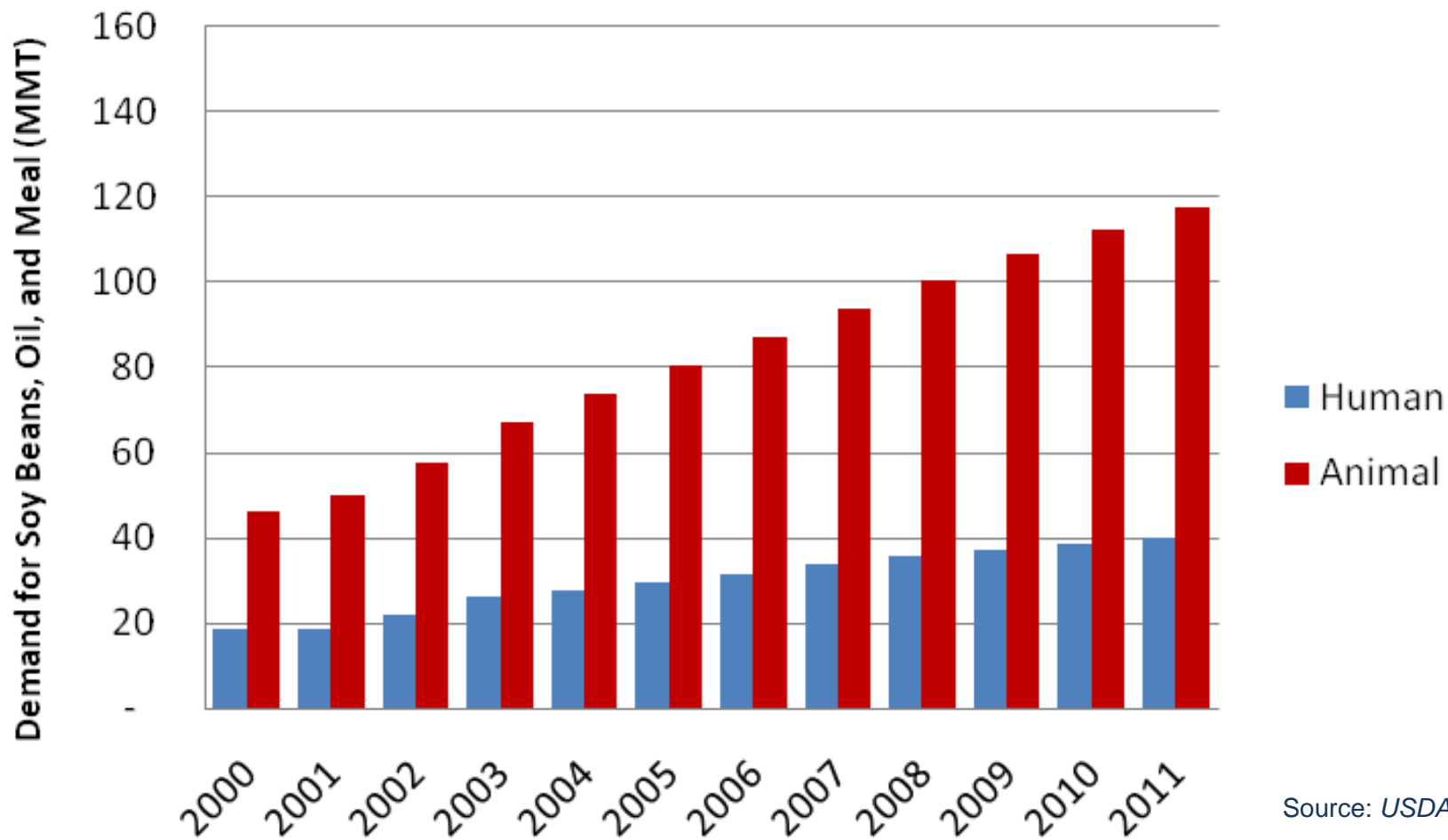
**Oceania: 12%**



## The Feedgrain Challenge

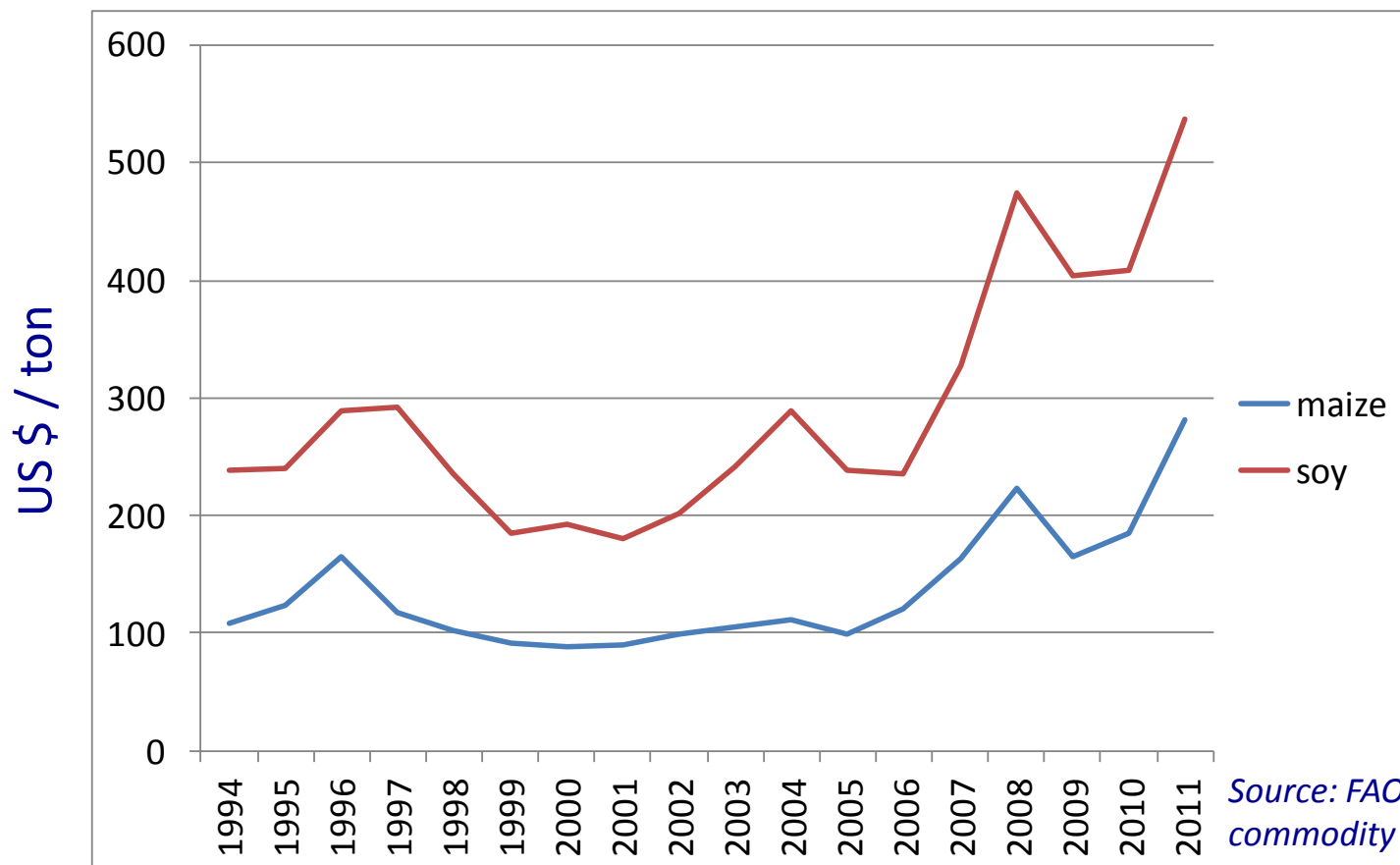
- Meat production growth, mainly pigs and poultry, exceeding feed growth raising questions about long term sustainability of feed supplies
- China to increase maize production at the rate of about 2.3 percent but net imports to balloon
- Thailand and Viet Nam to also emerge as major importers of feed ingredients

# China Soy Demand



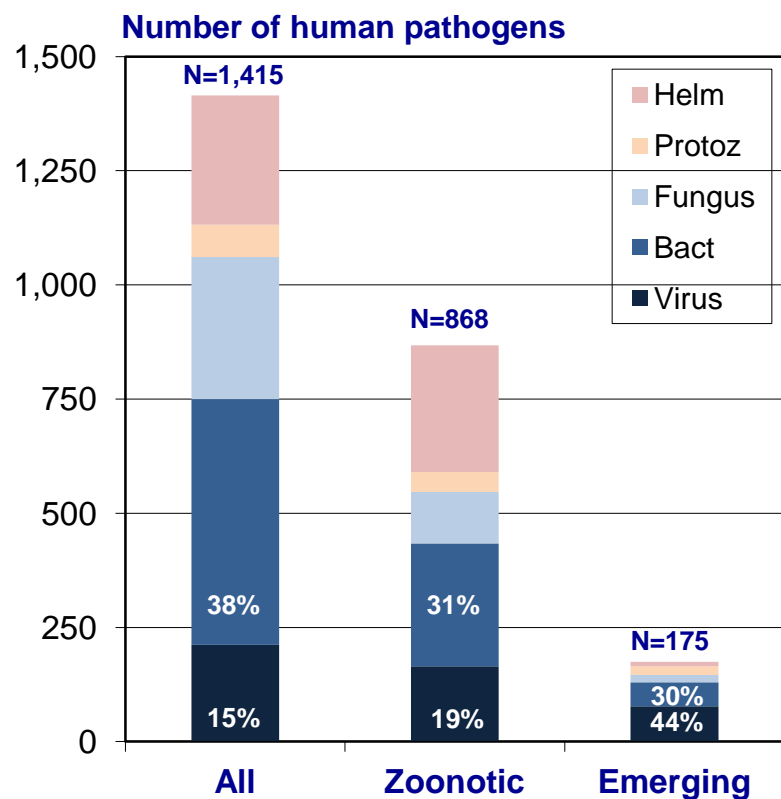
Source: USDA.

# Intl. Prices for Maize and Soy



Source: FAO commodity prices, 2011

# Emerging Infectious Diseases



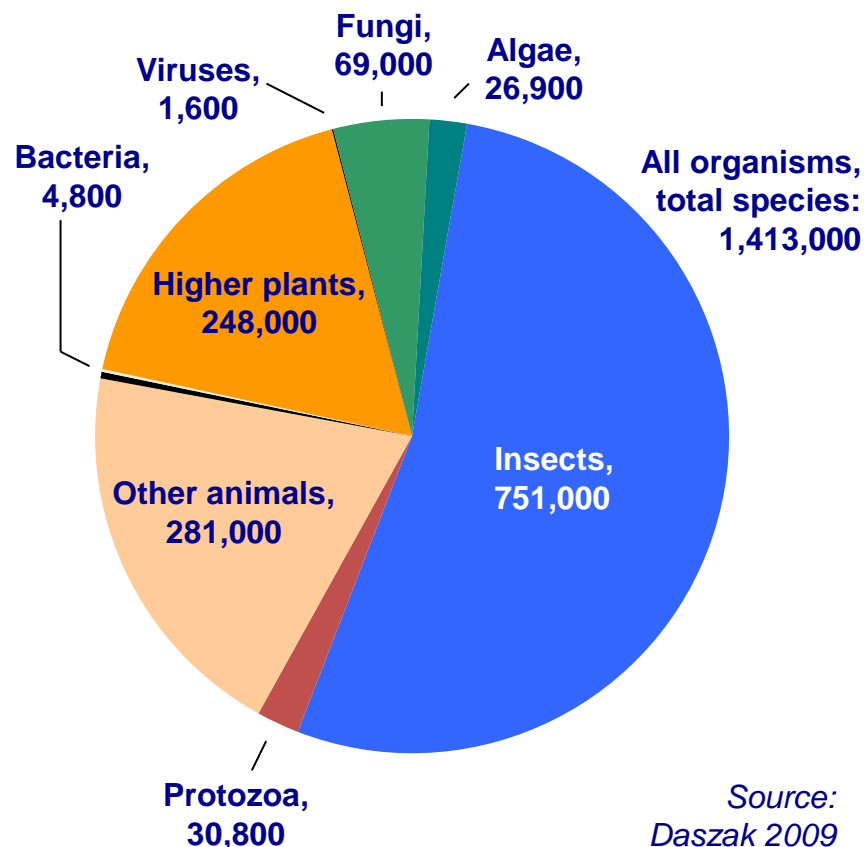
Source: Taylor et al., 2001





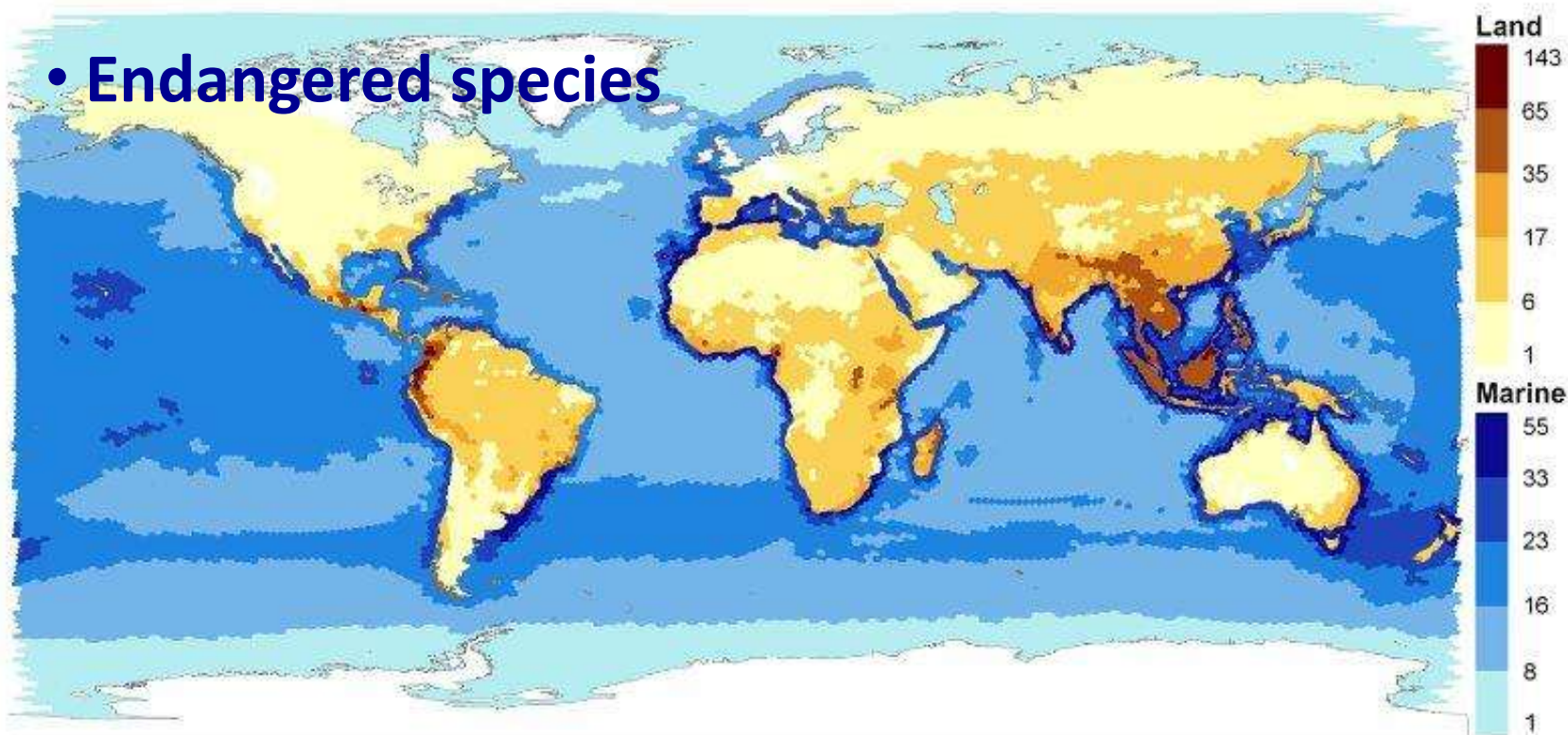
# The Known Unknowns

- There are 50,000 known vertebrate species. Assuming each has 20 endemic viruses, there are likely over 1 million vertebrate viruses.
- Only 2,000 or so viruses have been described, so 99.8% of vertebrate viruses remain to be discovered.
- Large potential for further emergence of zoonoses.



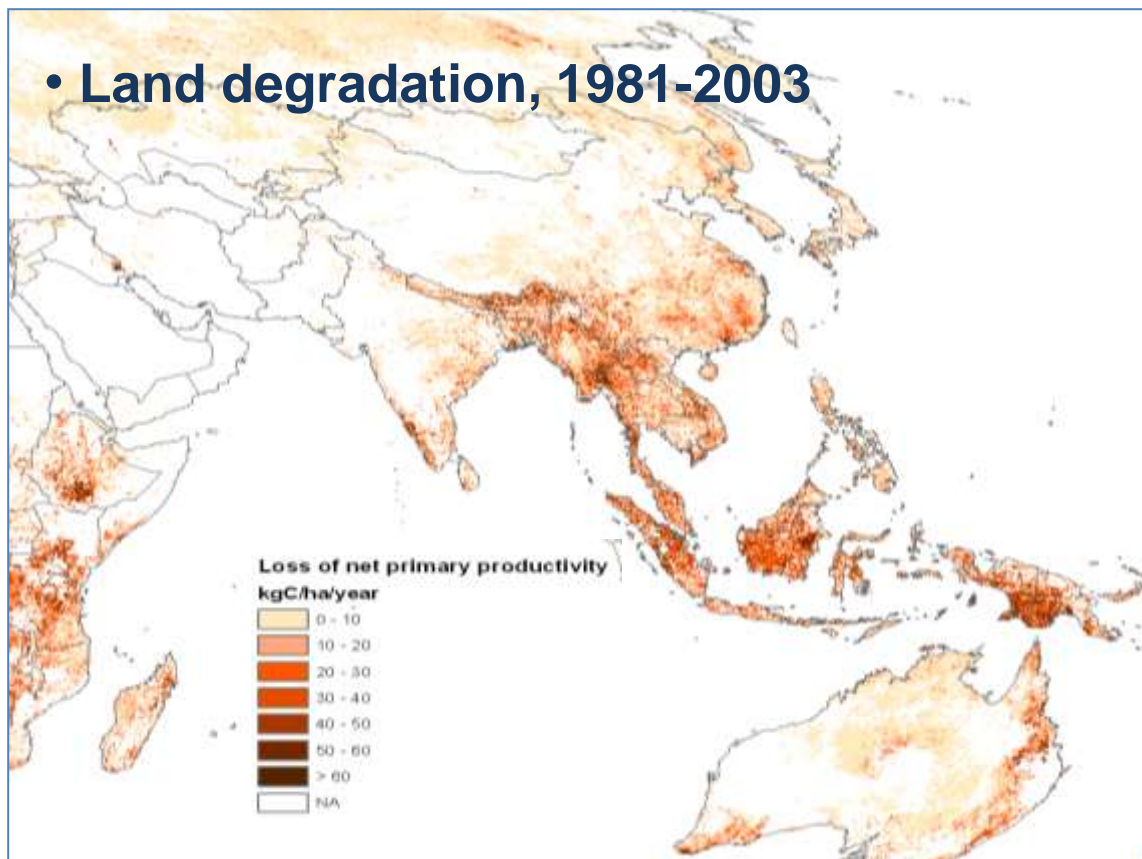
# Environmental Concerns: Biodiversity

- Endangered species



# Environmental Concerns: Land Degradation

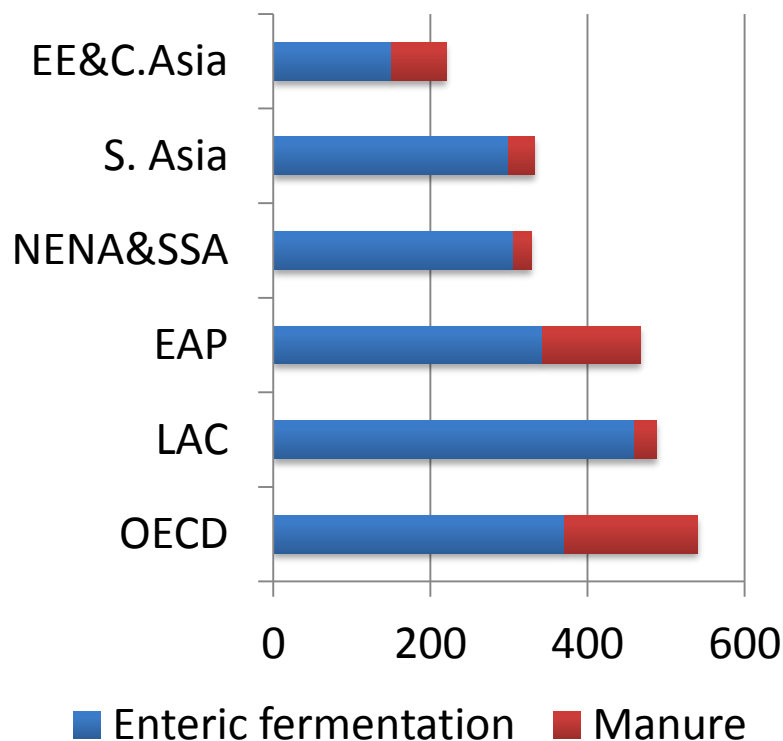
- Land degradation, 1981-2003



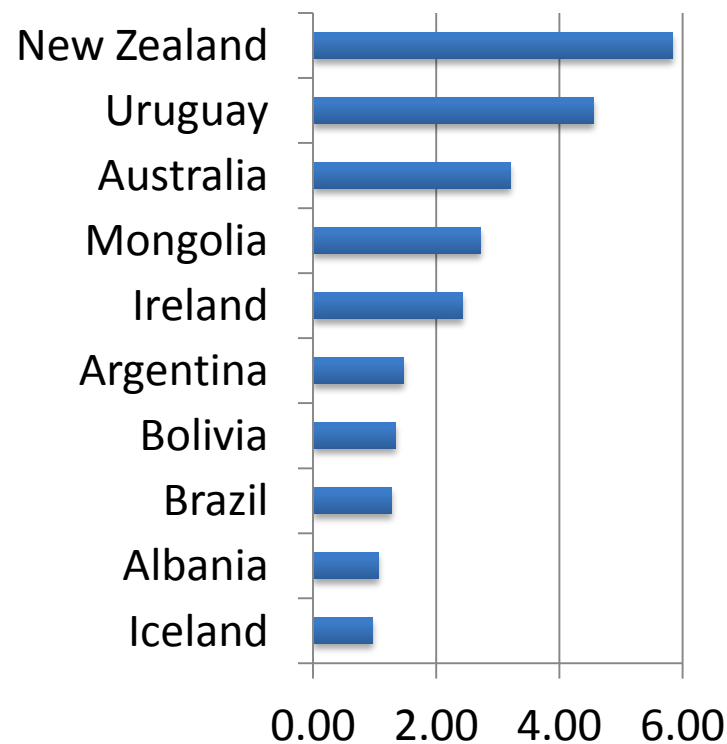
Source:  
Bai et al. 2008

# Environmental Concerns: GHGs from Livestock

Million Mt CO<sub>2</sub>eq. (2005)



Per capita Mt CO<sub>2</sub>eq. (2005)



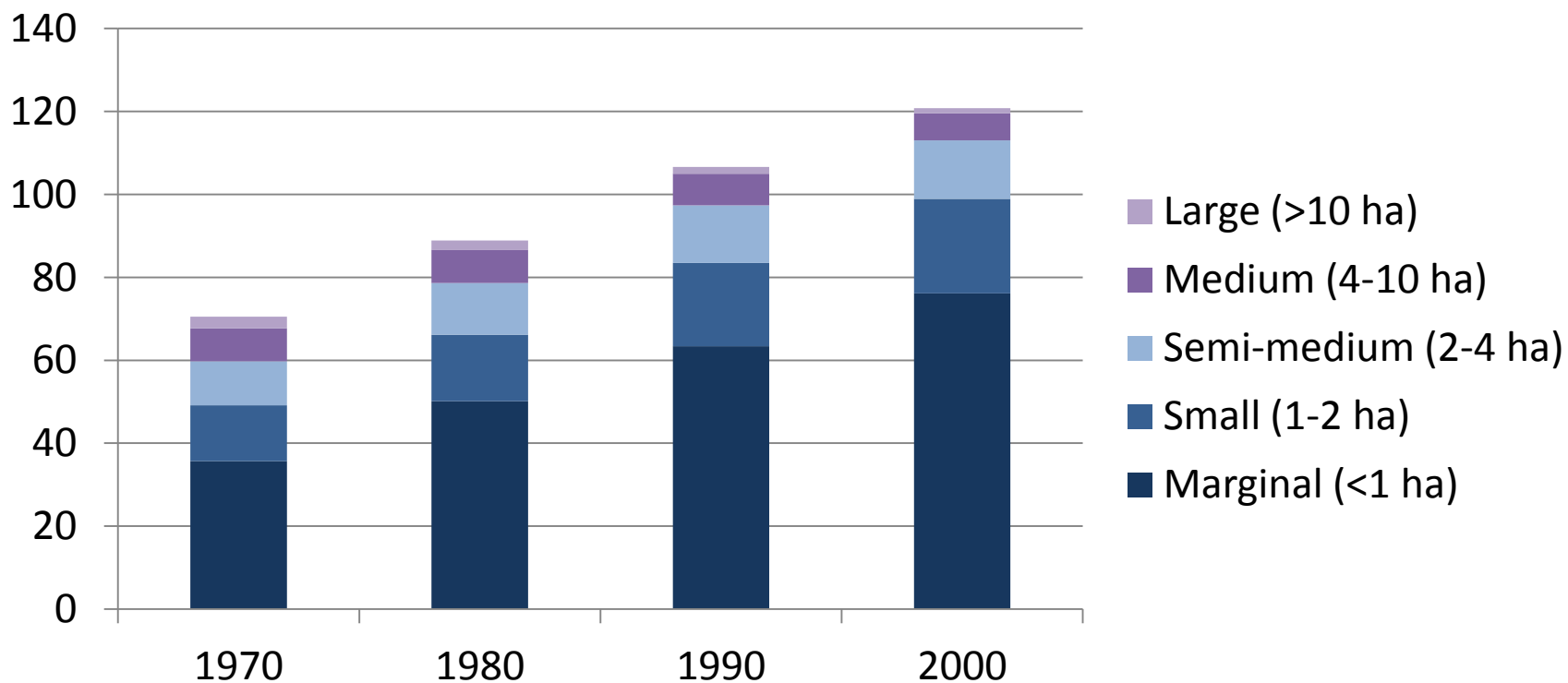
# Social Concerns: Rural Livelihoods & Food Security

- Livelihoods
  - 1 billion people keep livestock
  - 60 percent of rural households
  - livestock have multiple functions
- Food supply
  - 15 percent of dietary energy
  - 25 percent of protein supply



# Social Concerns: Rural Livelihoods & Food Security

**India: Operational Agricultural Holdings (million)**





## Conclusions

- Complex social, economic and environmental issues and trade-offs associated with the livestock sector
- How can livestock sector development be managed to maximum benefit / minimum harm?
- What place / role should APHCA take?



35<sup>th</sup> Session/72<sup>nd</sup> Executive Committee Meeting  
of APHCA and Regional Consultation on  
Livestock Policy Framework for Asia

November 2-4, 2012

Manila

