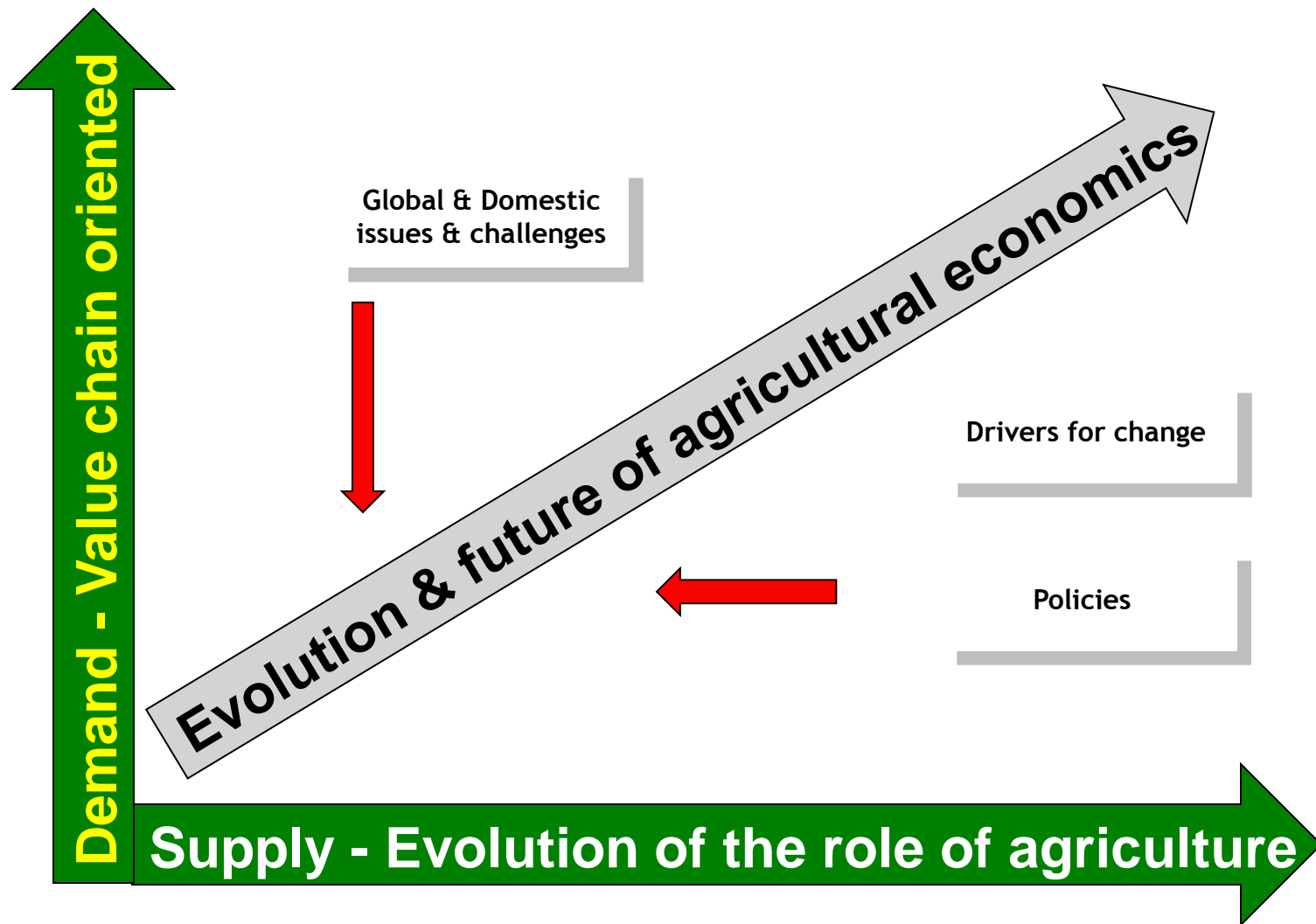


Future of Agricultural Economics

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Talking points at the PETA Table Talk Dinner 2011
29 November 2011

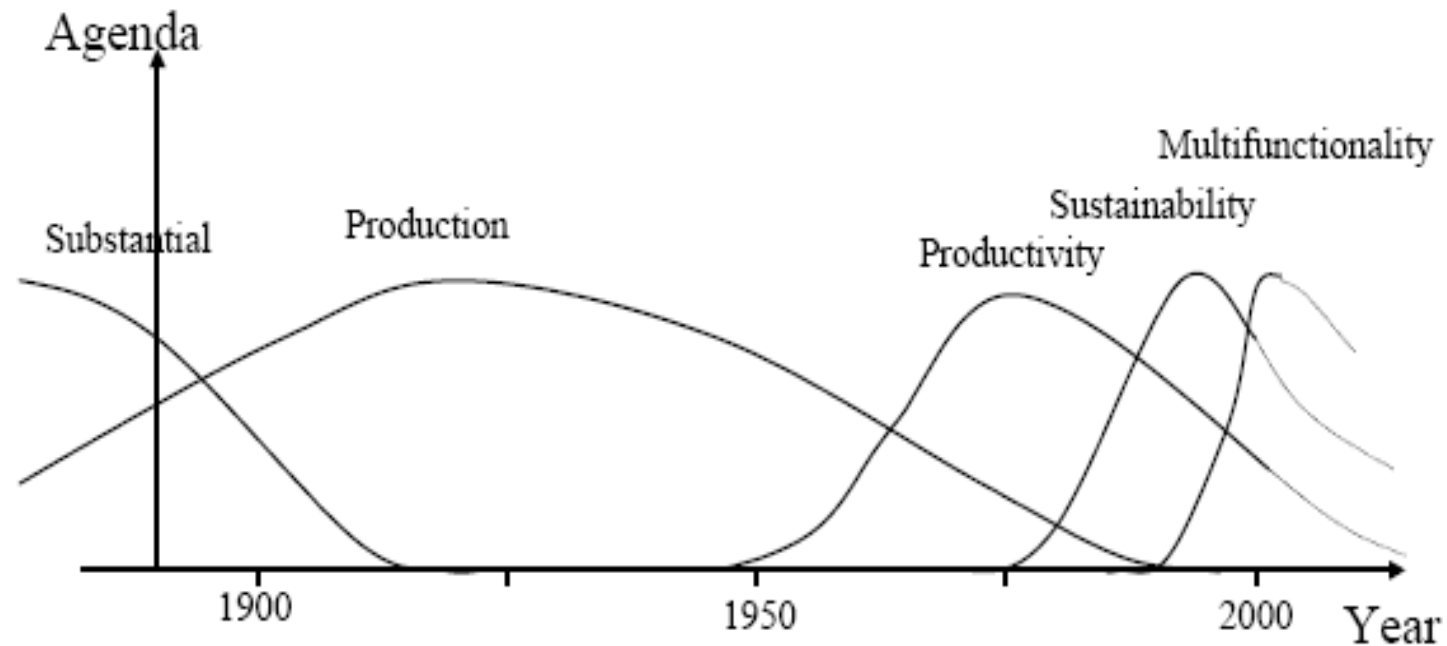
Future of agricultural economics and its implication to agricultural economists



Presentation Outline

- Supply - evolution of the role of agriculture
- Demand – from production to supply chain oriented
- Drivers for change
- Evolution of the agricultural economic discipline
- Moving forward

Evolution of the role of agriculture – moving from production to multifunctionality.....



New paradigm of agriculture: its multifunctional roles and multidimensionality

*Traditional roles are commodity oriented
Production of food and fibre*



Multifunctional agriculture covers commodity and space

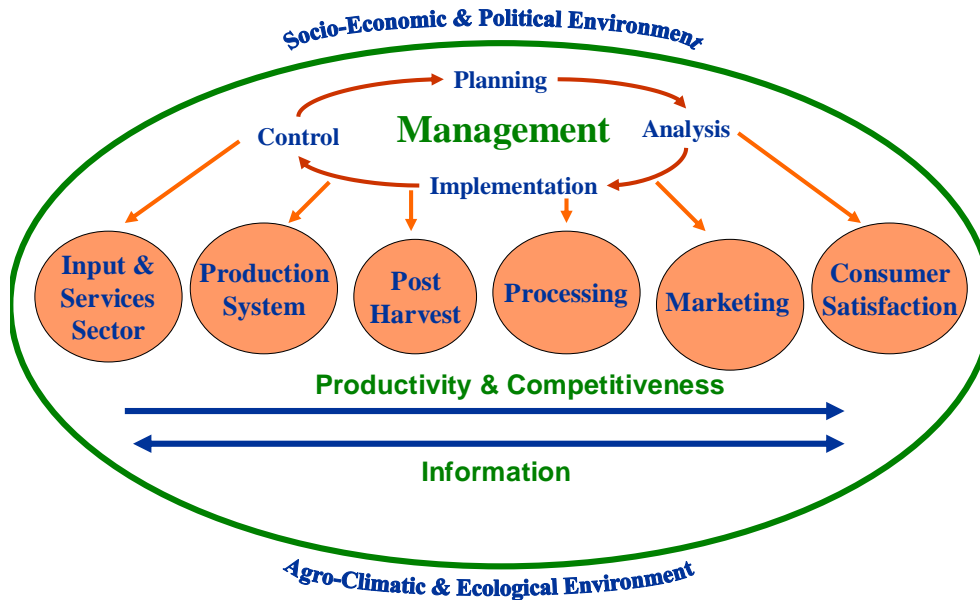
Commodity

- Production of food and fibre

Non-commodity/space

- Environmental preservation
- Rural employment
- Biodiversity
- Biofuel
- Soil and water health
- Ecotourism & recreational
- Preservation of rural landscape
- Rural community

The scope of agriculture has changed from production oriented to supply chain oriented.....

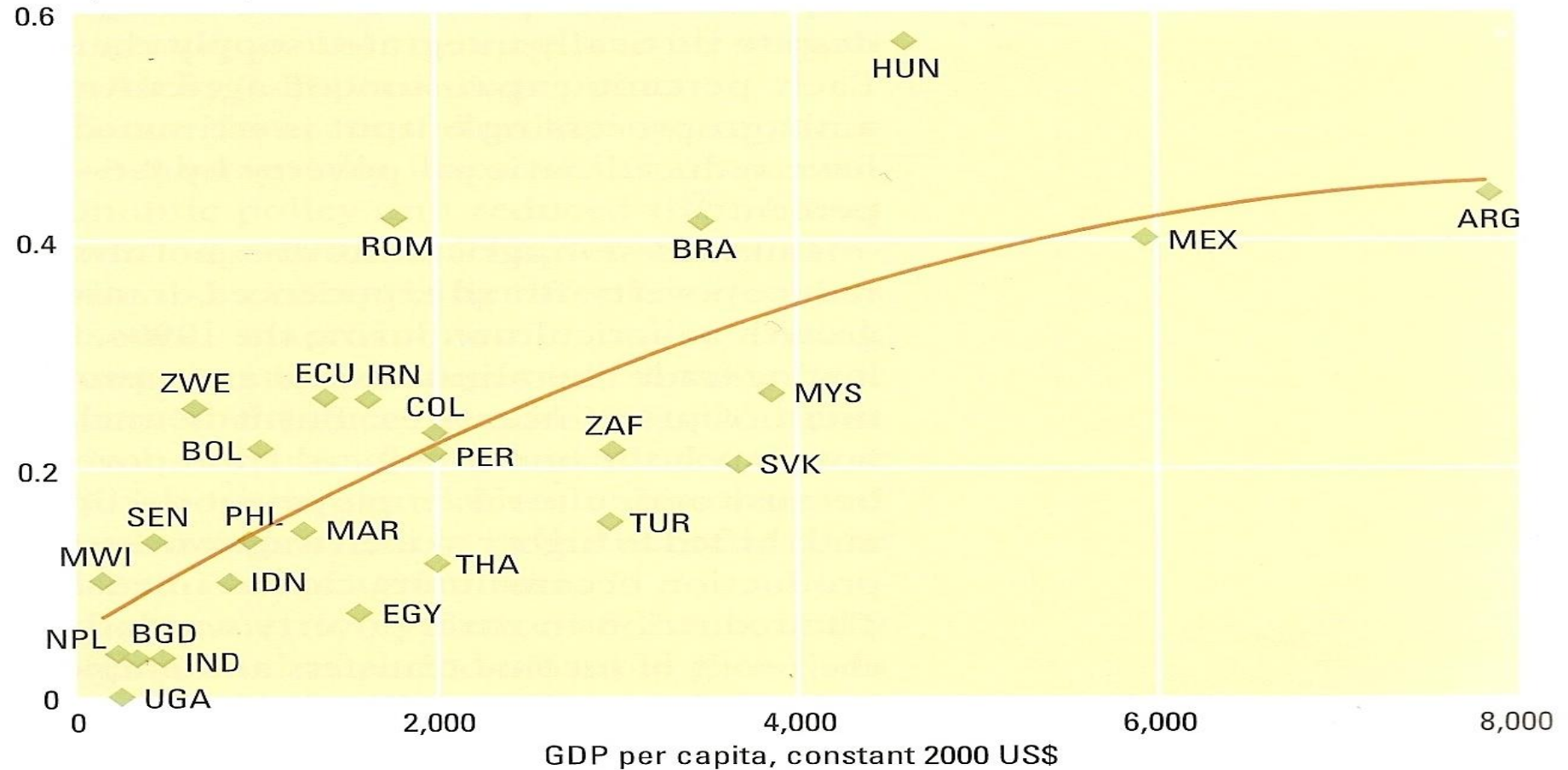


- Involves from plough to plate, farm to table, or cradle to grave.
- Must be business driven and technology oriented to improve productivity and competitiveness, and sustainable to conserve the environment.

The performance depends on the socio-economic and political environment as well as agro-climatic and ecological environment.

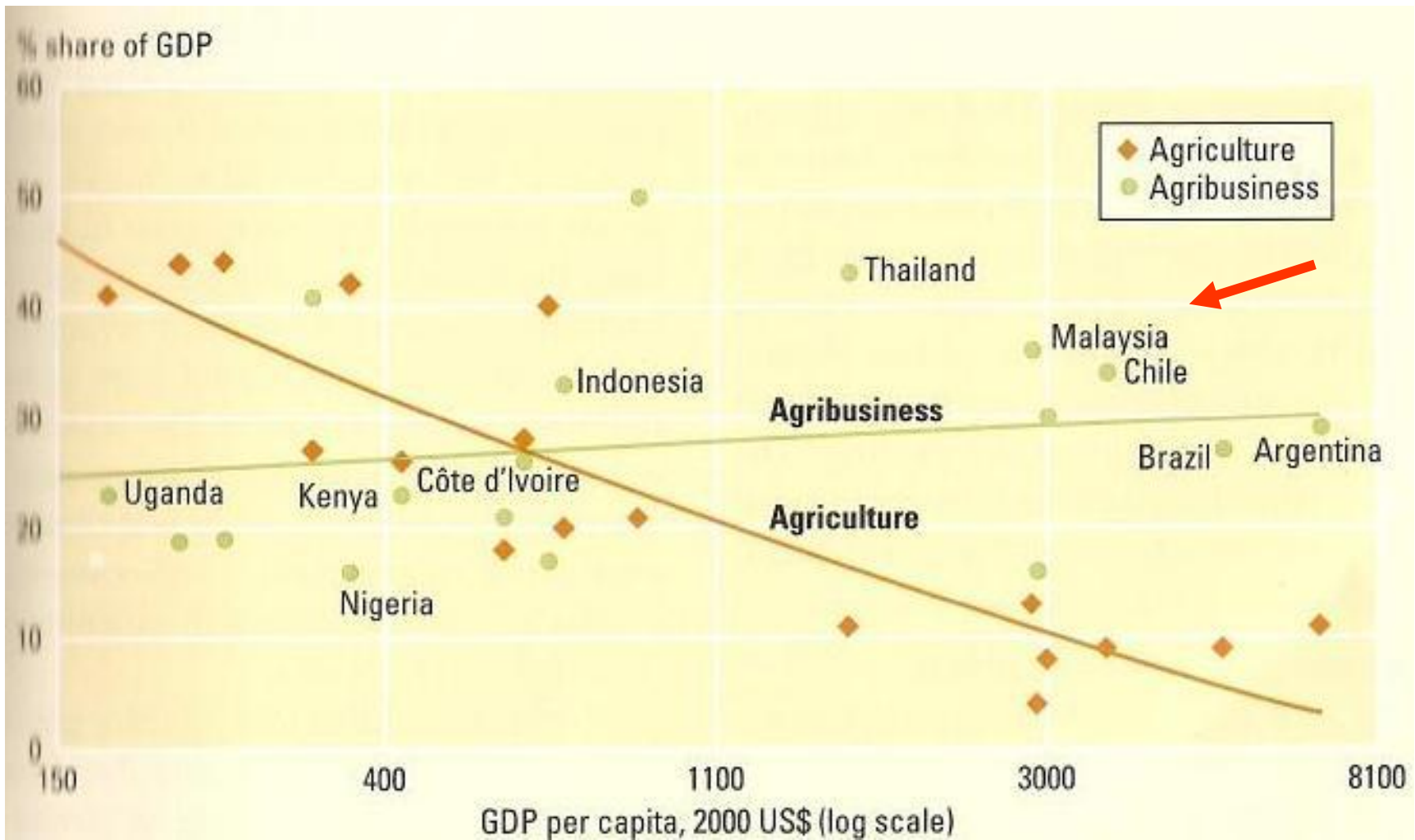
The ratio of food processing value added to agriculture value added rises with income

Food processing value added/agriculture value added



Source: World Bank 2006y; UNIDO Industrial Statistics Database 2005.

The relative share of agriculture and agribusiness in GDP change as income rise. Thus we need to consider the whole value chain in policy formulation.



*What are the drivers for change?
What are the issues and
challenges in agriculture?*

Drivers for change

■ Trade Liberalization and Globalisation

- Improvement in income leads to changing consumer tastes and behaviour
- The competition for investment and financial credit mechanisms to stimulate agricultural development and returns for investors
- The shift in market power to large players in processing, distribution and retailing in particular

■ Technological development

- Increase production from input-based to knowledge-based

■ Environmental concern

- Demand for improved conservation and consideration of ‘public goods’ - such as landscape enhancement and biodiversity
- Green technology

Issues and Challenges

Supply Factors

- Extreme weather and climate change
- Underinvestment of R&D in developing economies
- Higher input and transport costs
- Linked with energy prices (Food, Feed, Fuel dilemma)

Demand Factors

- Increase in real food prices
- Rising middle income population
- Increase in global population

Emerging Issues and Challenges

- Sustainable production, processing and marketing
- Climate change
- Knowledge and innovation economy (KI-economy)
- Food safety
- Transformation of the marketing system
- Food retailing

Has the agricultural economic discipline evolved? To where? Why?



Evolution of agricultural economic discipline

- In the early years, farm management, marketing of farm products, land economics and farm finance were predominant.
- Over time, questions of international trade and agricultural policy became more important.
- In later years, issues such as intensive use of chemical and pesticides in food and water, market failure, externalities, agricultural and environmental issues became inextricable.
- has evolved from farm-centric to a broader spectrum of economic and management issues that include agribusiness, resource, environmental & ecological economics.

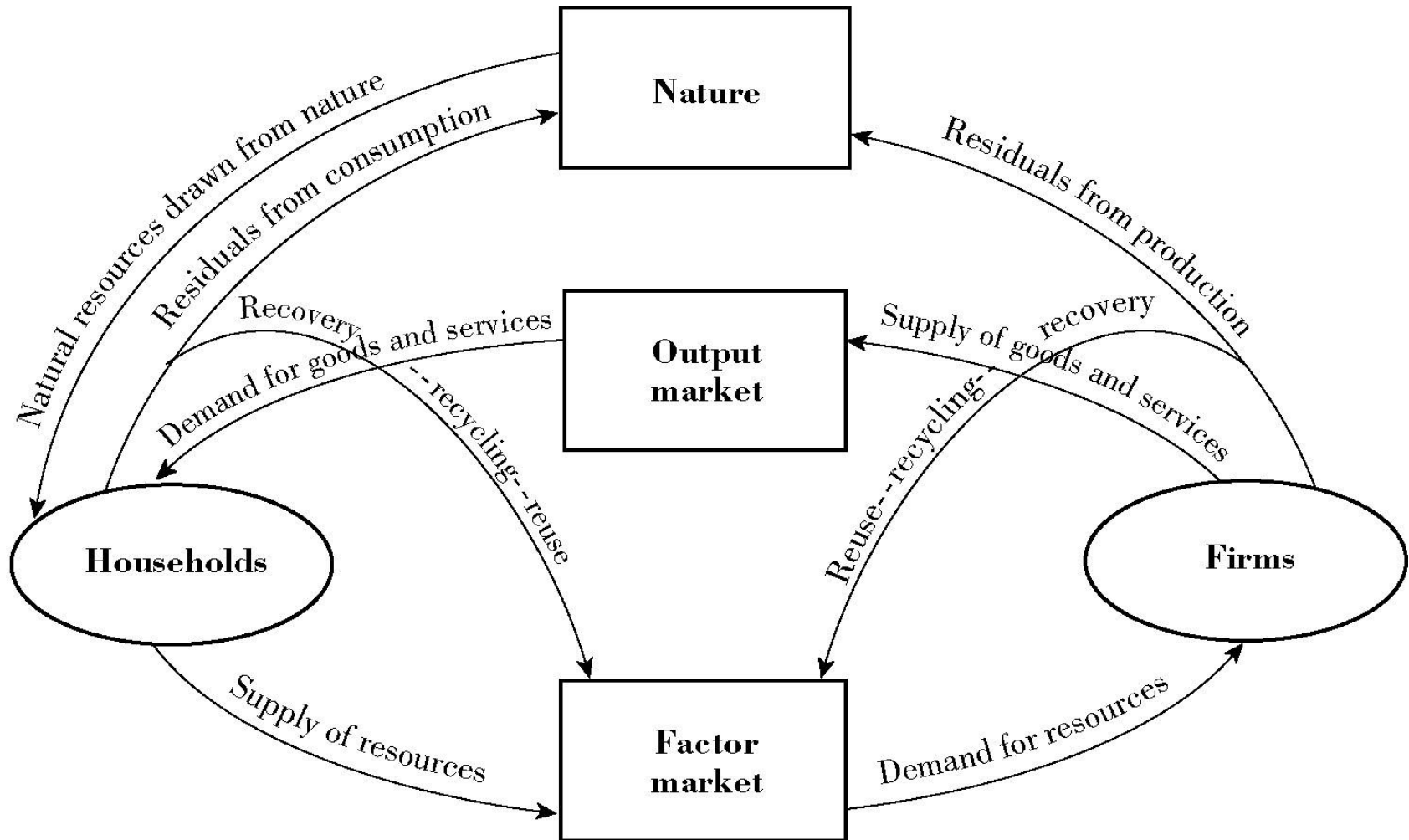
Evolution of agricultural economic discipline

- The areas of study include - community and rural development, food safety and nutrition, international trade, resource and environmental economics, production economics, risk and uncertainty, consumer behaviour and household economics, market analysis and competition and agribusiness.
- However, the traditional farm management studies are still applicable and much needed for policy analysis.

Moving Forward.....



Must recognize the existence of externalities in both production and consumption.....



Modelling the economics of value-added

$$Y(t) = f(K, L, E)$$

where

Y = output of an economy in year t

K = capital

L = labour

E = environmental quality (a natural capital assets that provide a flow of services)

■ Supply sector constraints are imminent

- Climatic change & extreme weather
- Environmental concern and the contribution of agriculture to the problem
- Depleting resource: land, water, fisheries, forestry, fossil fuel
- Agricultural resources now competes food vs energy uses
- Labour shortage

■ Demand sector is booming

- Income increase that led to changing lifestyle and diet
- Population increase
- The retail revolution (supermarketization)
- Growing concern of food security and safety

- Implications of supply constraints
 - Sustainable agriculture is the way to go
 - Green technology
 - Sustainable resource management
 - Improvement in productivity based on innovation

- Implications of booming demand sector
 - Food security agenda
 - Food safety
 - Sustainable consumption

Malaysian economic scenario

- Dominated by the service and manufacturing sectors.
- Green economy becoming more significant.
- Agriculture production will contribute about 5 - 6% to the GDP.
- Food security issues & balance of trade - Food production vis-à-vis industrial crop production will increase significantly from the current 40% of the agriculture value-added to 60% in 2020.
- Industrial crop production and value-adding will still be significant.
- Food processing industry will be more significant, contributing from 3.3% in 2000 to about 5% in 2010 and 8% in 2015 to the GDP.
- Knowledge and innovation (KI-economy) will determine our competitiveness and success in the global arena.
- Selective interventions by the government due to trade liberalization and flattening of the world.

Moving Forward.....

- To move forward, the discipline (in academic programs, research & extension) has to integrate the technical, economics and management areas in value chain, environmental and sustainable development themes.

Thank You

