



Market trends & implications in agri-food chain research

Myanmar Agribusiness Master Class, Monday 8 January
Wendy Umberger, Ph.D.

Exec Director & Professor
Centre for Global Food and Resources



Australian Government

Australian Centre for
International Agricultural Research



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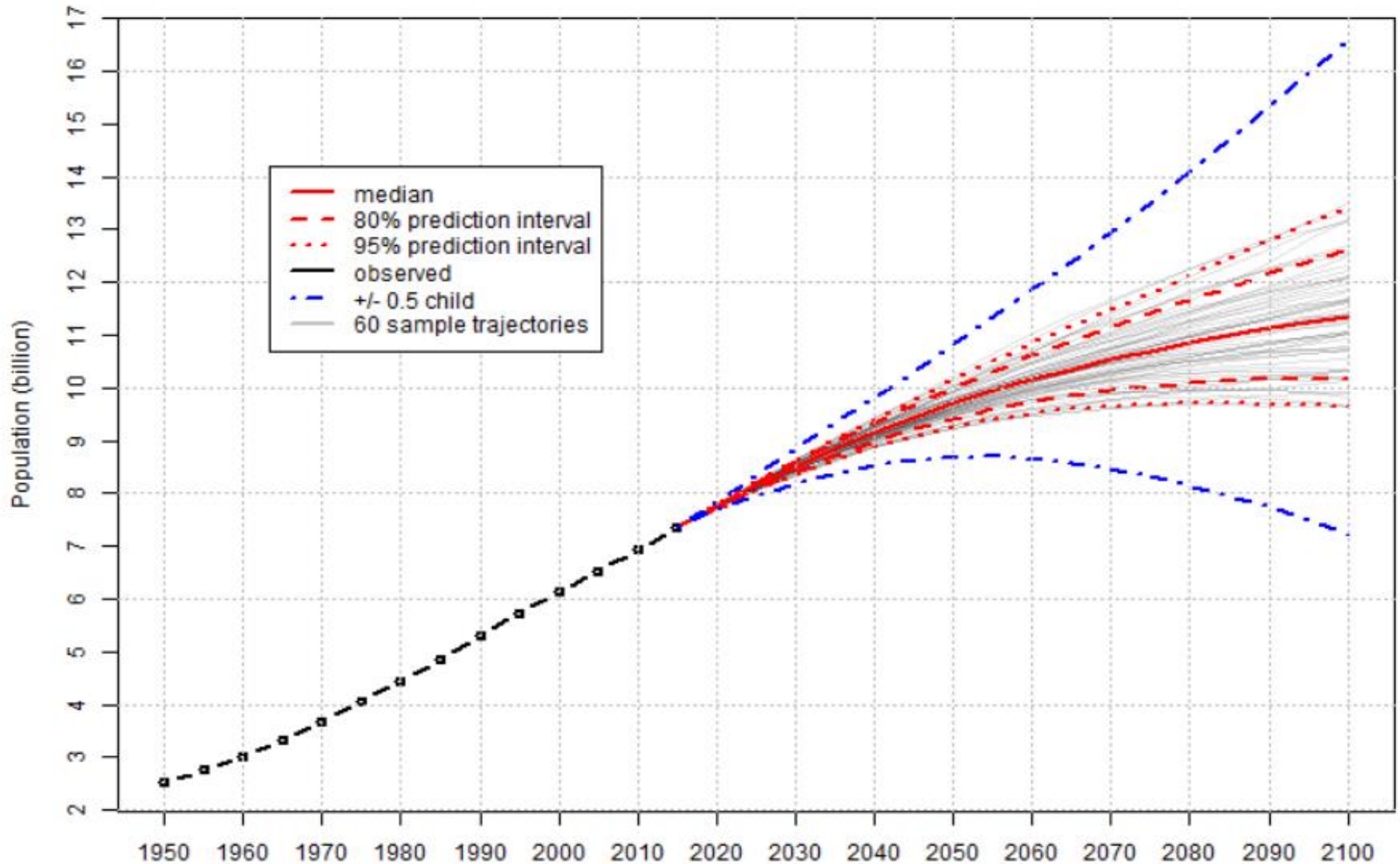
Overview

- How market research can help us understand & address issues & opportunities
- Real world agricultural and food market issues in both developed and less developed countries
- Impact of modern retailer procurement systems, certification, food safety & quality standards
- How high value agricultural product markets have changed risks along the chain
- Constraints to pro-poor agribusiness development in agri-food value chains
- Connection between MSD, value chain analysis (VCA) & market research

Macro-trends affecting Smallholder marketing environment

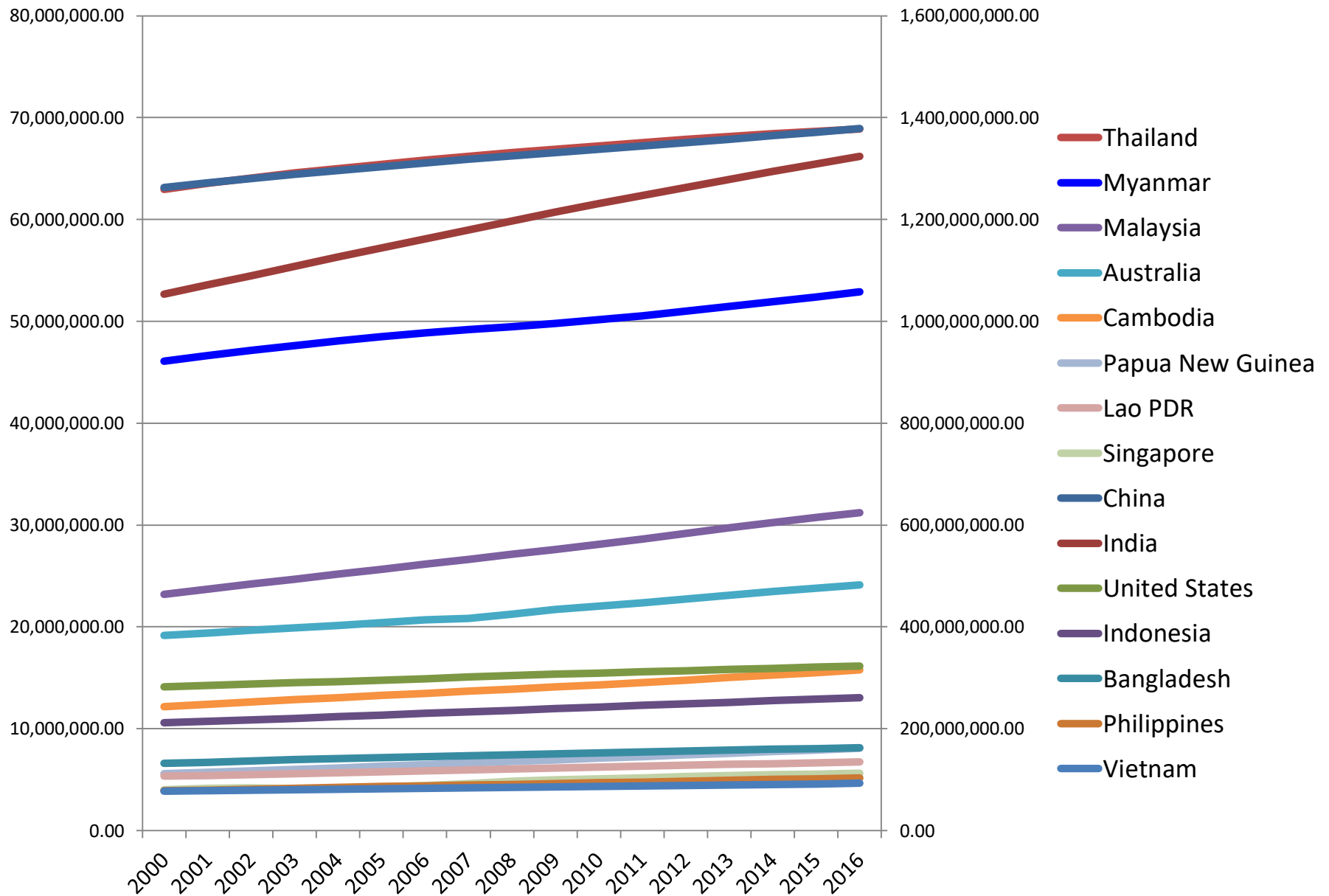
- Population growth
- Urbanization
- Increasing disposable income
 - Declining share of disposable income on food
- Globalisation
- World Trade Organisation and “trade deals”
- Price volatility
- Changing consumption trends
- Market formalisation and changes in governance (“supermarket revolution”
 - Changes in production, processing, procurement, financing
- Food Safety regulation
- Sustainability concerns
- New applications (e.g. biofuel, herbal and pharmaceutical, bio-plastics etc)

World Population Projections (1950-2100)

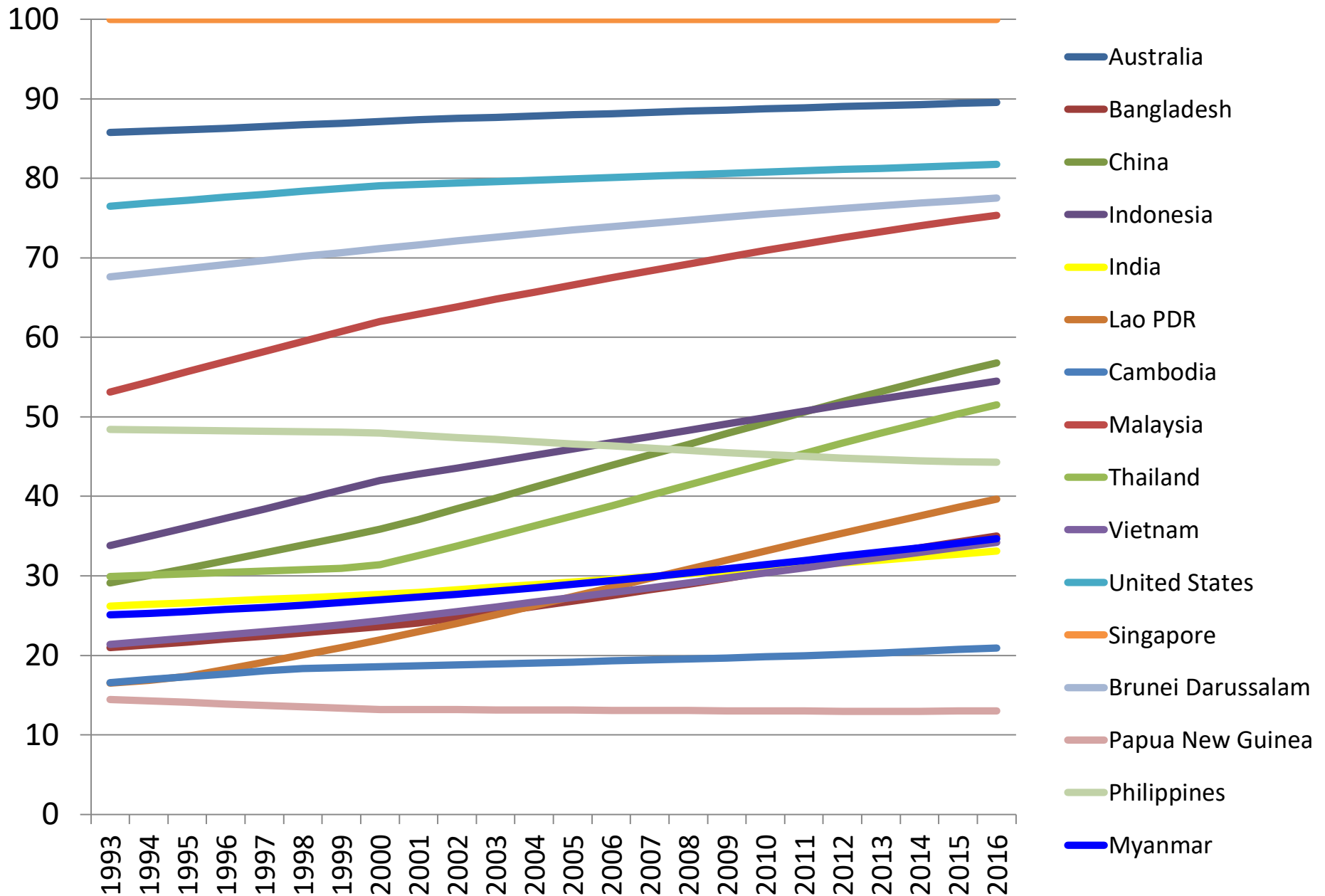


Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

Population, total

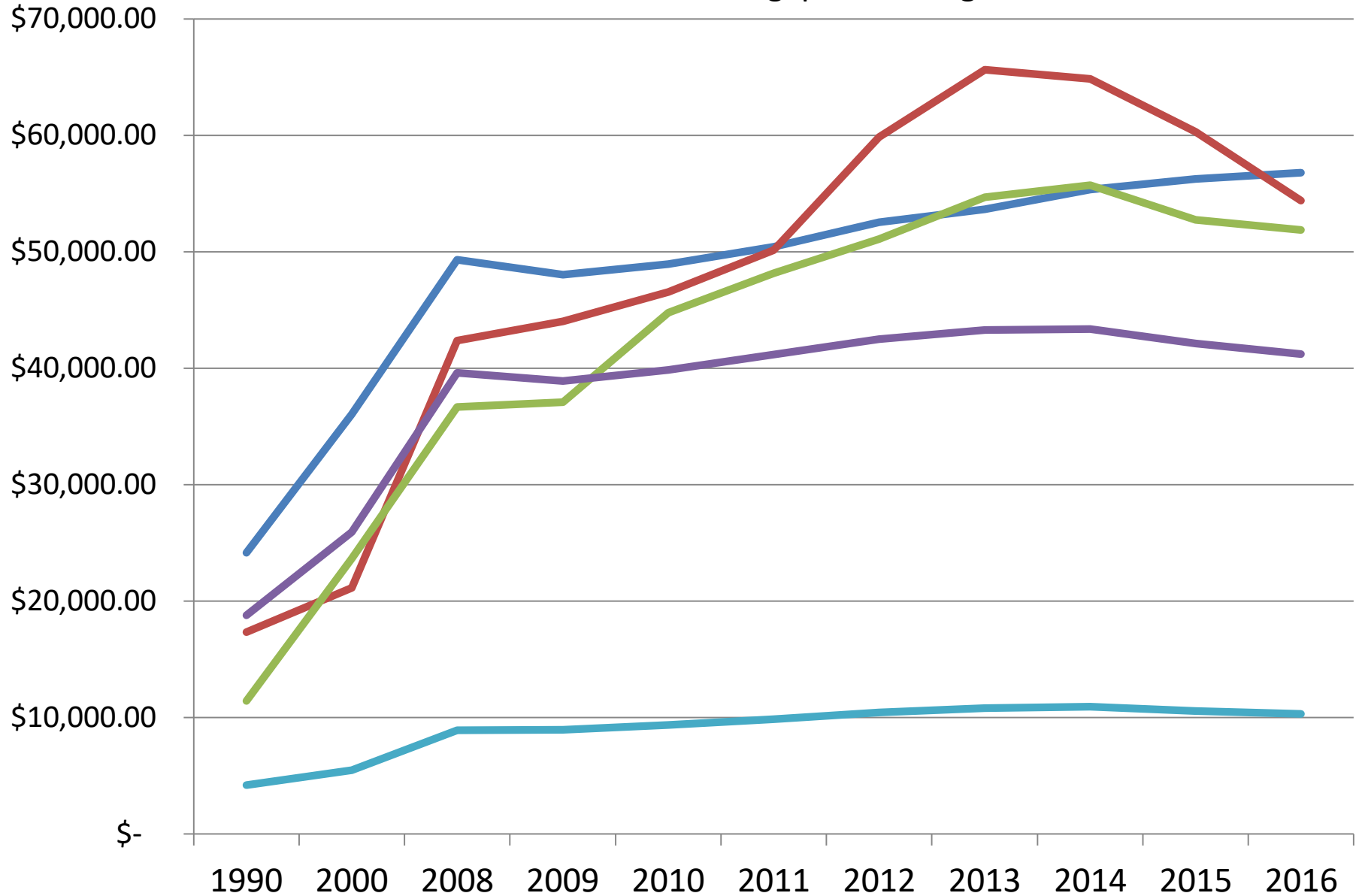


Urban population (% of total)

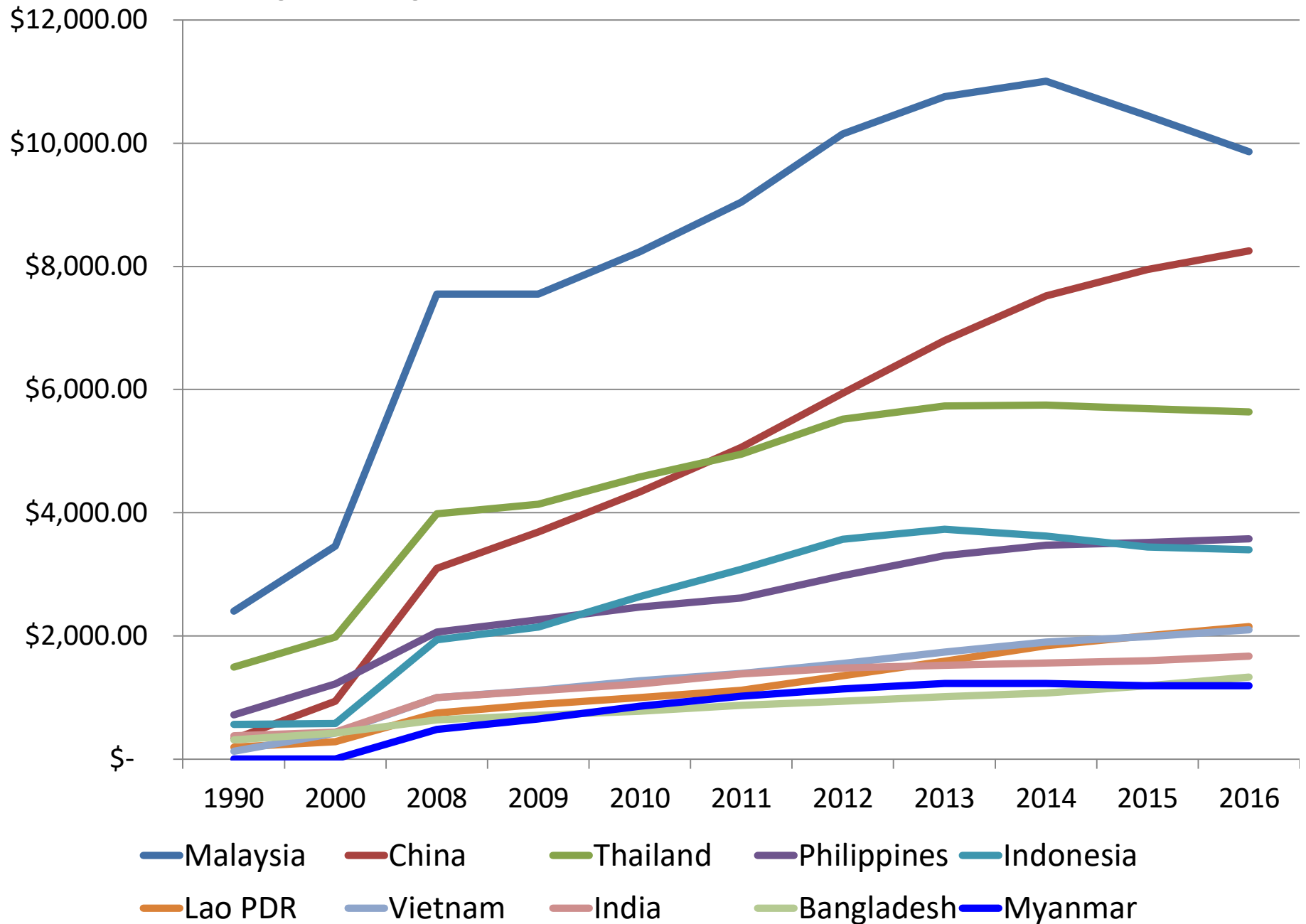


GNI per capita, Atlas method (current US\$)

United States Australia Singapore High income World



GNI per capita, Atlas method (current US\$)



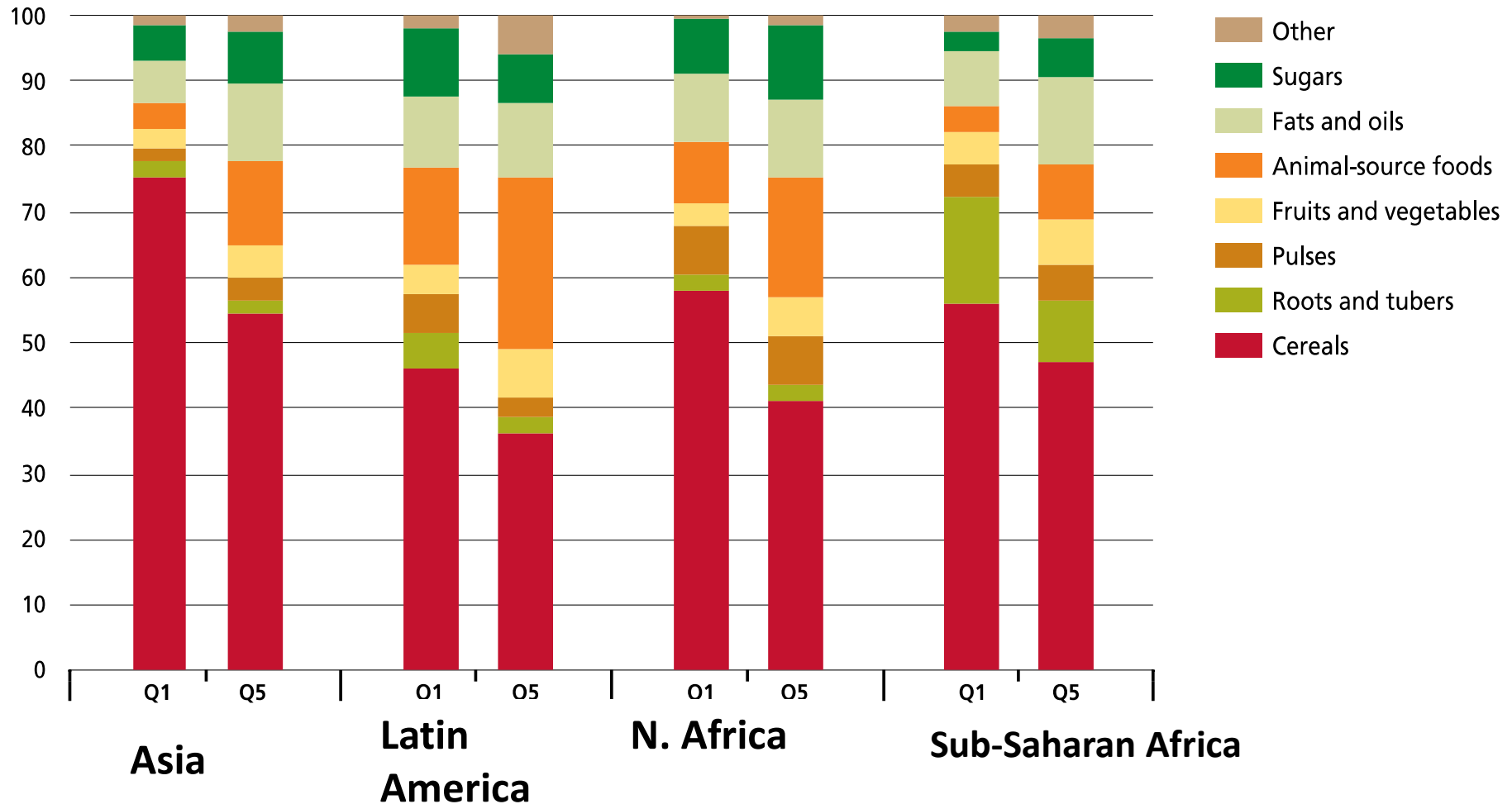
Consumption trends affecting smallholders

- Dietary “upgrading”
- Quality and credence attributes
- Demand
 - Processed
- “Health”
- Off-season purchasing (year-round demand for fresh produce)
- Exotic and novelty foods
- Ethnic food

Which are relevant
for Myanmar?

Dietary Upgrading

Share of food groups in total dietary energy supplies (percentage)



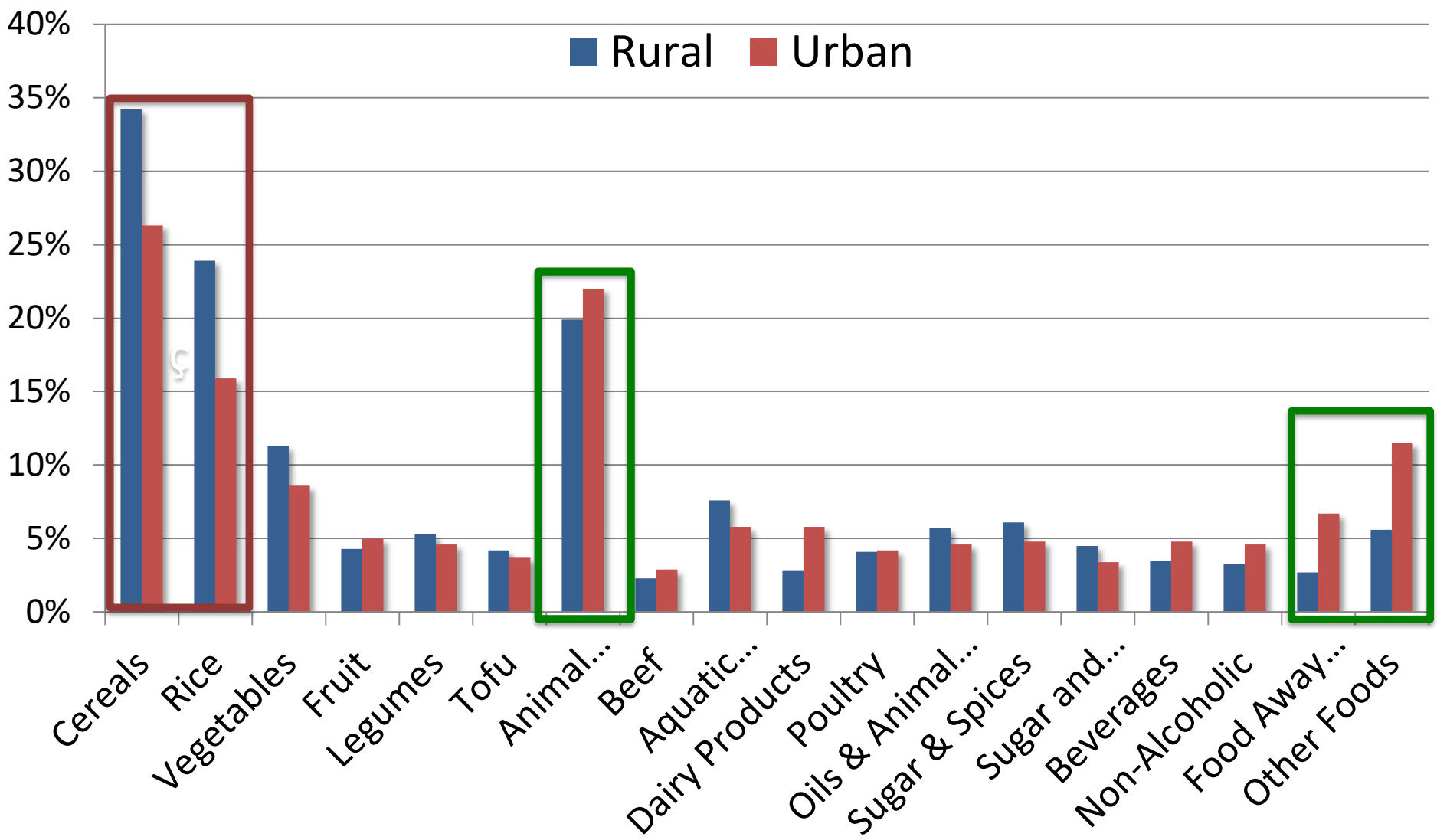
Note: Data refer to households of lowest and highest income quintiles in 47 developing countries.

Source: The State of Food Insecurity in the World 2012, FAO available at <http://www.fao.org/publications/sofi/en/>



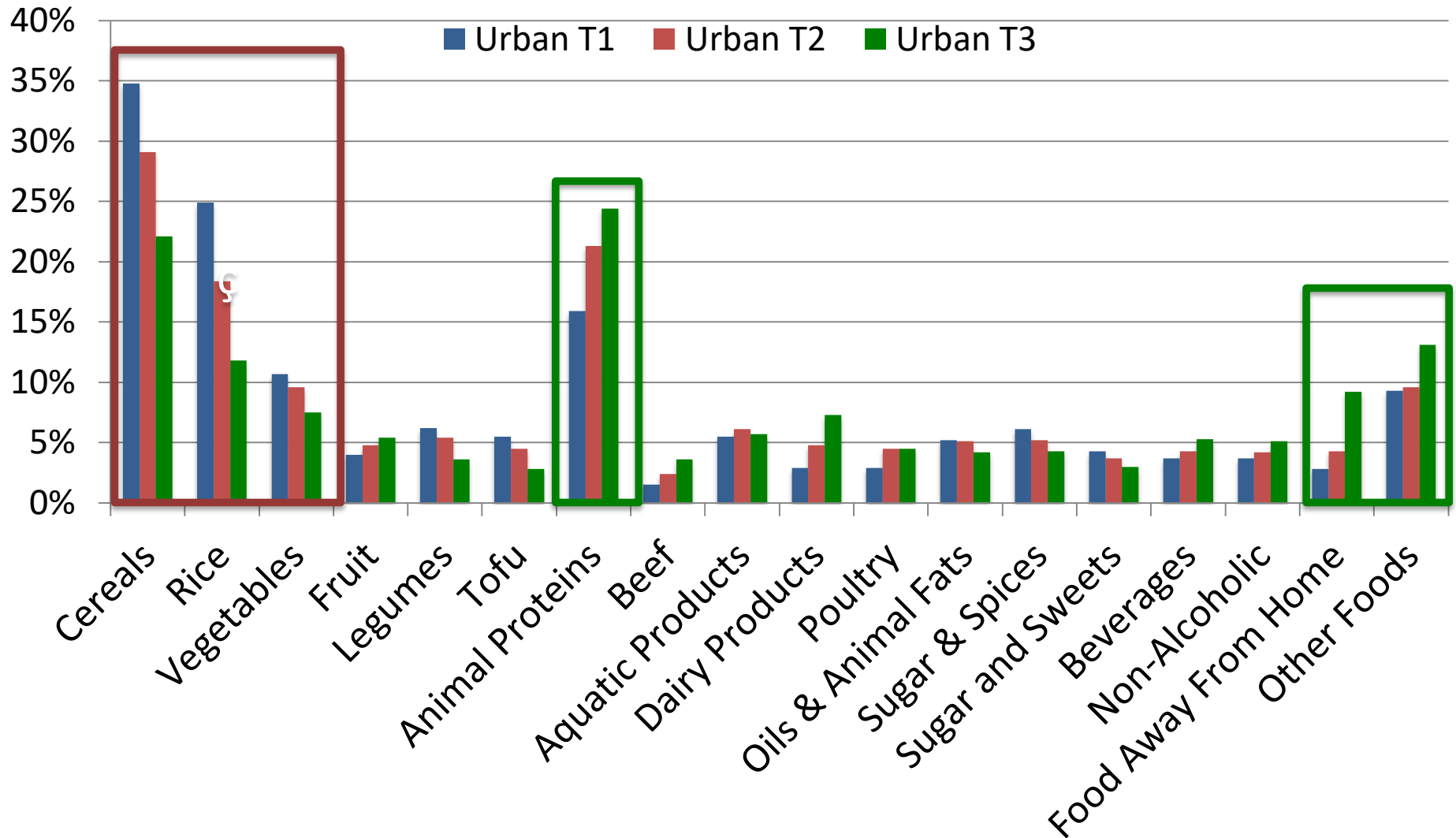


Indonesia, Rural vs. Urban Total Food Expenditure Shares (2010)



Source: Reardon, et al. 2014. "Urbanization, Diet Change, and Transformation of Food Supply Chains in Asia." Working paper, Global Center for Food Systems Innovation, Michigan State University.

Indonesia, Total Food Expenditure Shares by Income Tercile (2010)

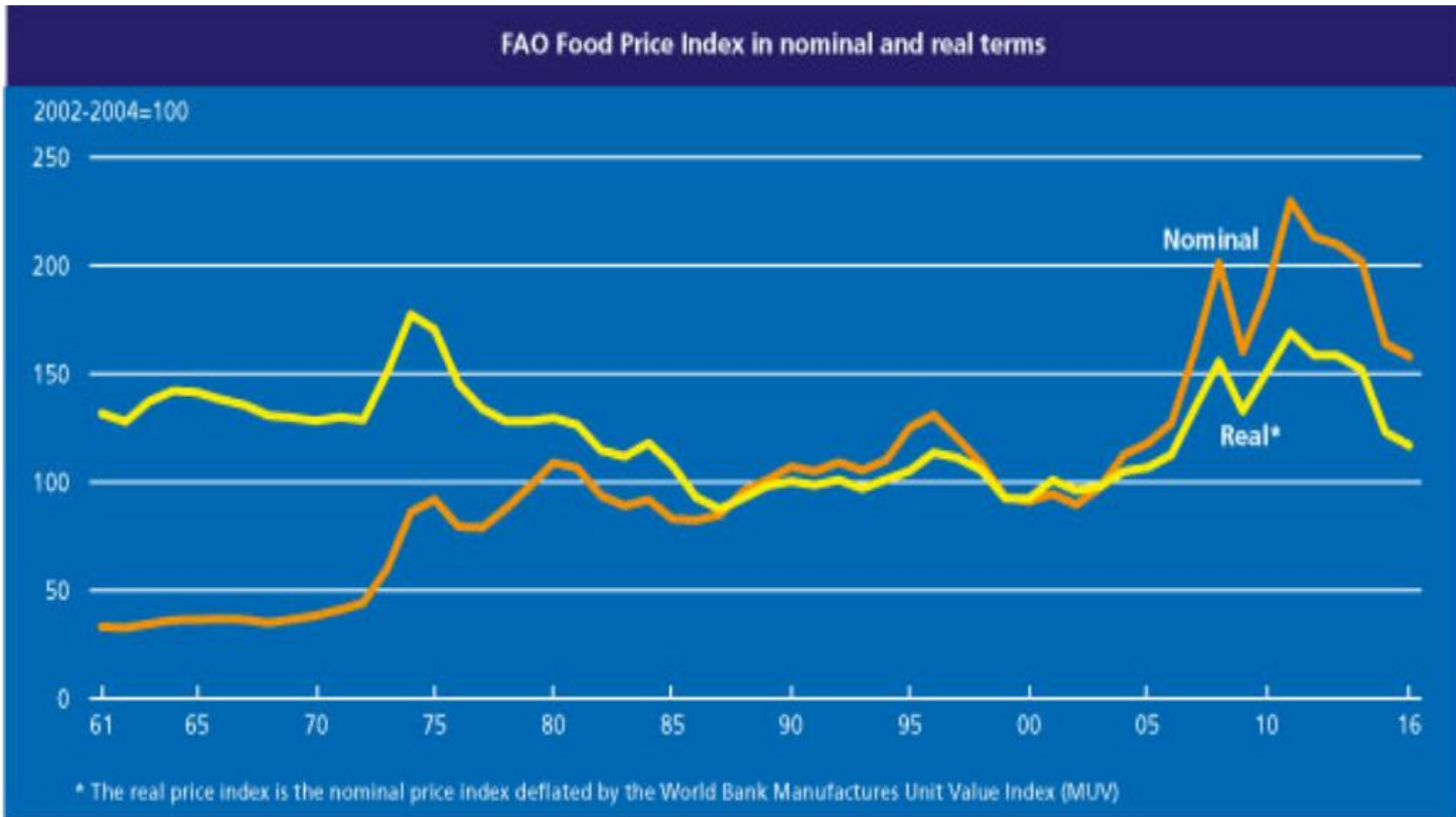


Source: Reardon, et al. 2014. "Urbanization, Diet Change, and Transformation of Food Supply Chains in Asia." Working paper, Global Center for Food Systems Innovation, Michigan State University.



Globalization.

World Trade: Price volatility?



<http://www.fao.org/worldfoodsituation/foodpricesindex/en/>



FIGURE WO-1 The well-traveled salad. To view an interactive version of this infographic on your computer or to download the static version of this image, visit <http://iom.edu/Activities/PublicHealth/MicrobialThreats/2011-DEC-13.aspx>. To use your smartphone to link directly to the interactive version use the QR code.



Food contamination: E. coli outbreak in Europe



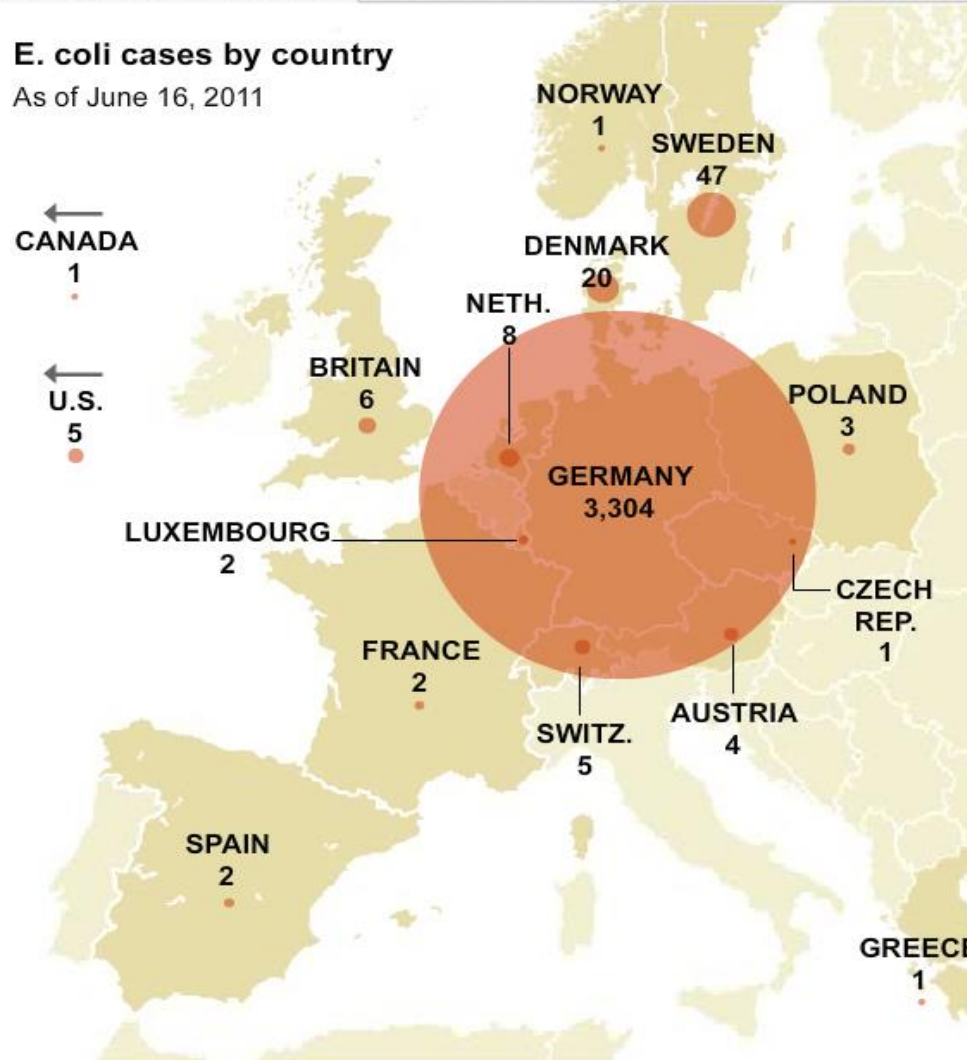
EUROPEAN OUTBREAK

ABOUT E. COLI

OTHER CONTAMINATION CASES

E. coli cases by country

As of June 16, 2011



A food poisoning outbreak in Germany and several other European countries has sickened more than 3,400 people. It was caused by a strain of E. coli that had never been detected before, according to health officials.

E. coli infections and deaths

As of June 16, 2011

	CASES	HUS*	DEATHS
Total	3,412	825	39

Roll over map for country data

***Hemolytic uremic syndrome (HUS)** is a dangerous complication present in nearly a quarter of the cases.

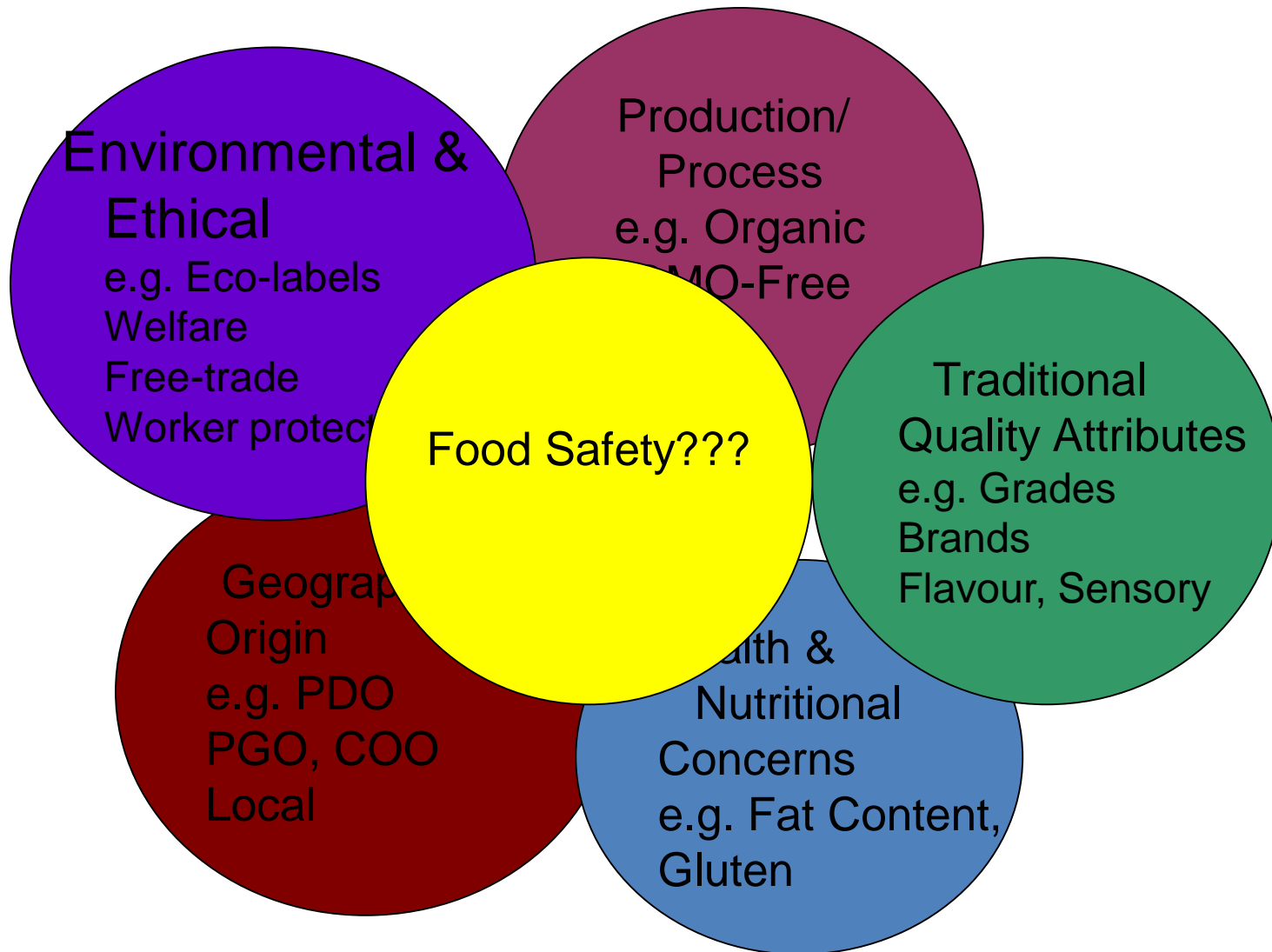
24% HUS 3,412 total cases

Food Safety Issues

- Foodborne pathogens / microbiological contaminants
- Environmental contaminants – dioxins, PCBs, heavy metals
- Natural toxicants – mycotoxins, phycotoxins, GMO
- Pesticide and drug residues
- Processing contaminants
- Allergens
- Additives – illegal dyes
- Authenticity
- Deliberate adulteration (food fraud)



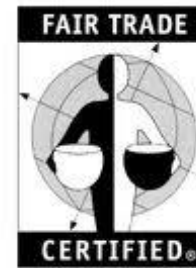
Food quality & safety are multi-dimensional



HE WANTED
TO BE HEALTHIER
SO HE GAVE UP
TRANS FAT AND
STARTED EATING
LETTUCE.

THEN
THE E-COLI
GOT HIM.







Beijing



Bogor, West Java





Wet Market Surakarta, Indonesia



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Rau an toàn BigGreen
Lựa chọn hôm nay, sức khỏe ngày mai

Sản phẩm của dự án "Nghiên cứu lựa chọn các mô hình liên kết tổ chức sản xuất, giám sát và cấp chứng chỉ chất lượng trong GAP nhằm thúc đẩy thị trường tiêu thụ rau an toàn"

Tên sản phẩm	:	Các vùng của Dự án
Nơi sản xuất	:	
Ngày thu hoạch và đóng gói	:	
Dư lượng thuốc BVTV	:	Dưới mức cho phép
Dư lượng Nitrat	:	< 500mg/kg
Hàm lượng kim loại nặng	:	Dưới mức cho phép
Dư lượng Salmonella spp và E.coli	:	Dưới mức cho phép

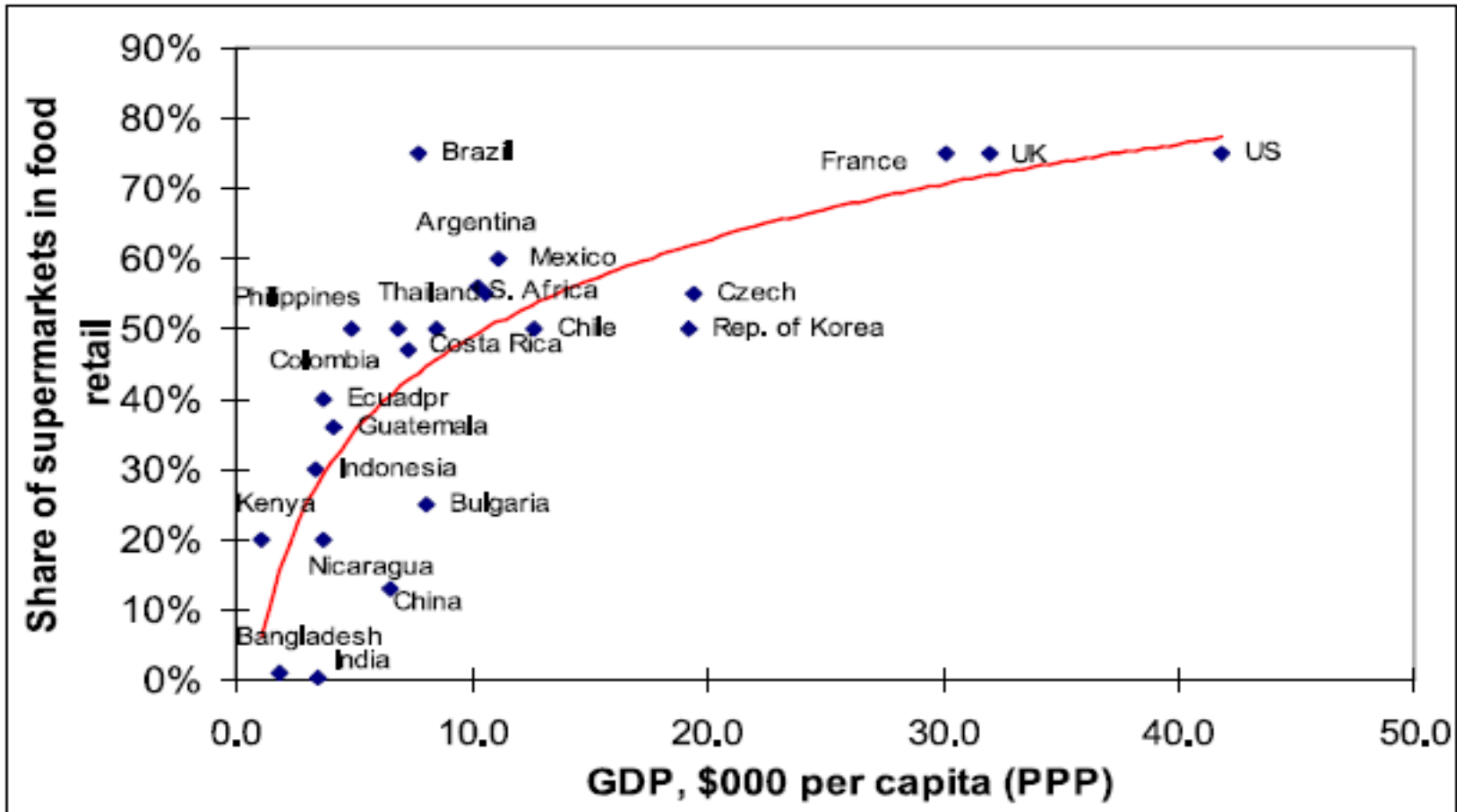
Đơn vị giám sát và chịu trách nhiệm CLSP: Viện môi trường Nông Nghiệp
Đơn vị phân phối và chịu trách nhiệm SP sau phân phối: Công ty Biggreen Việt Nam

Khối lượng:

Private sector initiatives to meet changing food demand

- Foreign direct investment (FDI)
- Vertical integration and coordination
- Governance- Requiring suppliers meet standards
 - Food safety control systems for quality assurance (e.g. HACCP)
 - Animal welfare standards
 - Environmental standards
 - Worker standards
- Certification by third-party accredited parties
 - E.g. GAP
- Traceability
- Sustainability

Supermarket Growth and Income



Supermarket Growth

Figure 5.4 Rising per capita incomes are important drivers of supermarket growth

Source: Reardon and Berdegue (2006) and World Bank World Development Indicators.

Supermarket share of Retail Food Sales

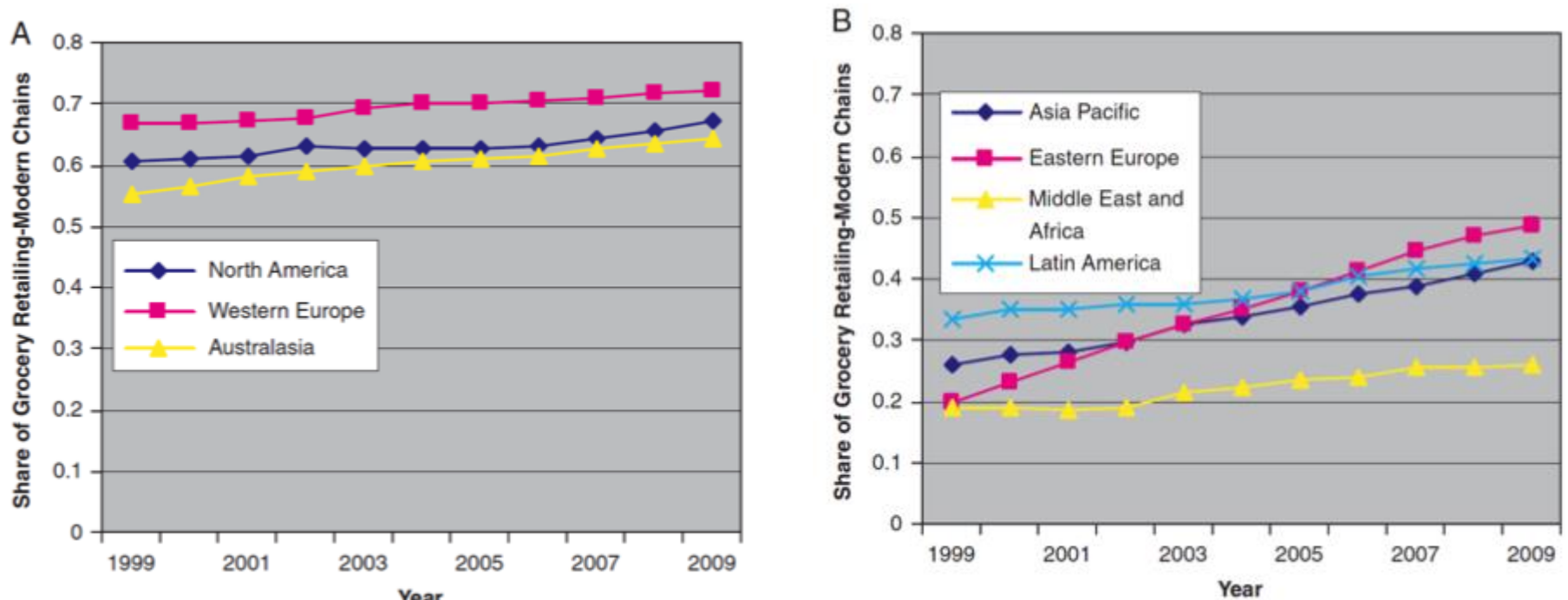


Figure 2 (A,B) Share of total grocery retailing sold in modern formats. Each figure reports the share of expenditure of total grocery retailing for the country spent in modern formats—hypermarkets, supermarkets, discounters, and convenience stores that are part of a chain are shown as —x— in Figure 2B. *Source:* Authors calculations using Euromonitor International data.

Source: Tandon, S., A.E. Woolverton, M.R. Landes. 2011. “Analyzing Modern Food Retailing Expansion Drivers in Developing Countries.” *Agribusiness*, forthcoming

爆品疯抢	新品专区	特价商品	热卖推荐	产地直送
 <p>爆品</p> <p>【1L上质牛奶量版装】上质牛奶(盒装 1L) 12盒组合</p> <p>¥138 GO</p>	 <p>爆品</p> <p>玛亚科布雏菊女士香水50ml (瓶装)</p> <p>¥350 ¥630 GO</p>	 <p>爆品</p> <p>苔丝酒庄干红葡萄酒 (中粮直采 法国进口 瓶装 75...)</p> <p>¥78 ¥197 GO</p>	 <p>爆品</p> <p>时怡 中粮优选雪域玉枣五星 (袋装450g) *3</p> <p>¥79 ¥208 GO</p>	 <p>海南妃子笑</p> <p>海南妃子笑1.5KG【包... 8元, 新鲜荔枝果大、肉核小【不加枝】。"一骑..."</p>

今日我买团 团美味实惠等你来拿 >

 <p>进口车厘子</p> <p>美国原箱 空运直送</p> <p>预售仅售 ¥258/箱</p> <p>已有1283人购买 剩余时间3天以上</p> <p>¥258.00 ¥398.00</p> <p>我要团</p>	<p>【我买网走进美国】仅258元, 享我买价398元的【中粮海外直采、东航包机、产地直达美国原箱进</p>	 <p>大兴袖珍西瓜</p> <p>箱装4-5个</p> <p>团购仅售 ¥79</p> <p>已有314人购买 剩余时间3天以上</p> <p>¥79.00 ¥138.00</p> <p>我要团</p>	<p>仅79元, 享我买价138元【大兴袖珍西瓜(箱装4-5个)】1箱, 这个夏天很给力, 让大家都吃上皮薄...</p>
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Our new growth locally sourced ingredients. Our delicious and nutritious vegetables, salads and herbs. Chosen from over 30 different vegetables and herbs...

Fresco is committed to the production of clean nutritious vegetables, salads and herbs; all our products are grown by European experts locally, not imported and not air freight.

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Fresh from Shan State

VEGGY BOX

Written by Fresco Team



FRESH FROM SHAN STATE

Written by Fresco Team



30 JAN 2014

Tired of wasting time in the traffic? Are you too busy to keep your new year's resolution of eating healthier? Sit back and relax while we do all the work.

At Fresco, we have started a Veggy box service to easily get to you the best of our products. We source only the highest-quality and freshest vegetables and herbs from our farms because "Fresh" is not only our name, but also our promise!

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19 APR 2013

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The story of Fresco goes back to 2007 when it was funded by a group of agronomists and food enthusiasts who are working together to bring healthy, delicious and fresh vegetables, salads and herbs to people.

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All Vegetables Salads Herbs

Date Random



RED LOLLO

A non-hearting loose-leaf lettuce, Lollo Rosso has fringed and crinkled leaves that are tinged deep red...

[Salads](#)

RADICCHIO

Radicchio is bitter and bright. Find great ways to use this versatile vegetable in salads, pastas,...

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RADICCHIO LONG

Enjoy baked radicchio, savoring its taste and texture, sweet, bitter and crunchy. The best variety for...

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ICEBERG

Iceberg lettuce is regarded (perhaps unfairly) as being low in nutrition and also calories. But it's...

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RED BATAVIA

Batavia lettuce is a non-hearting lettuce with frilly leaves. Its crunchy nutty flavoured leaves grow upright...

[Salads](#)

CASTELLANO

This delicious variety of fan-leaved lettuce has received its designation because it ... ranging in colour from...

[Salads](#)

ROMAINE

A lettuce that belongs to a cultivar of garden lettuce and has long crisp leaves and...

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FRESH BEETROOT

Beetroot has been linked with better stamina, improved blood flow and lower blood pressure

[Vegetables](#)

BEEF TOMATOES

A beefsteak tomato (American English) or beef tomato (British English) is any of the largest varieties...

[Vegetables](#)[LOAD MORE](#) / HOLD SHIFT KEY TO LOAD ALL

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Supermarkets:

A double-edged sword?

- Traditional retail markets may be “crowded out”
 - Access to fresh products is limited
 - Potential negative price impact
- Small farmers may be squeezed out
 - Quality standards may be difficult for small farmers to meet
 - Sourcing and distribution systems may favour larger growers to reduce transactions costs
- Small farmers can increase incomes if able to supply the modern channel
 - Assistance with inputs, credit, and technical assistance to meet the higher quality standards

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Nestle announces new animal welfare standards



Nestle will require suppliers to provide more space for farm animals, minimize pain in veterinary practices and welcome independent auditors. Above, Nestle world headquarters in Vevey, Switzerland. (Fabrice Coffrini / EPA)

By **DAVID PIERSON**

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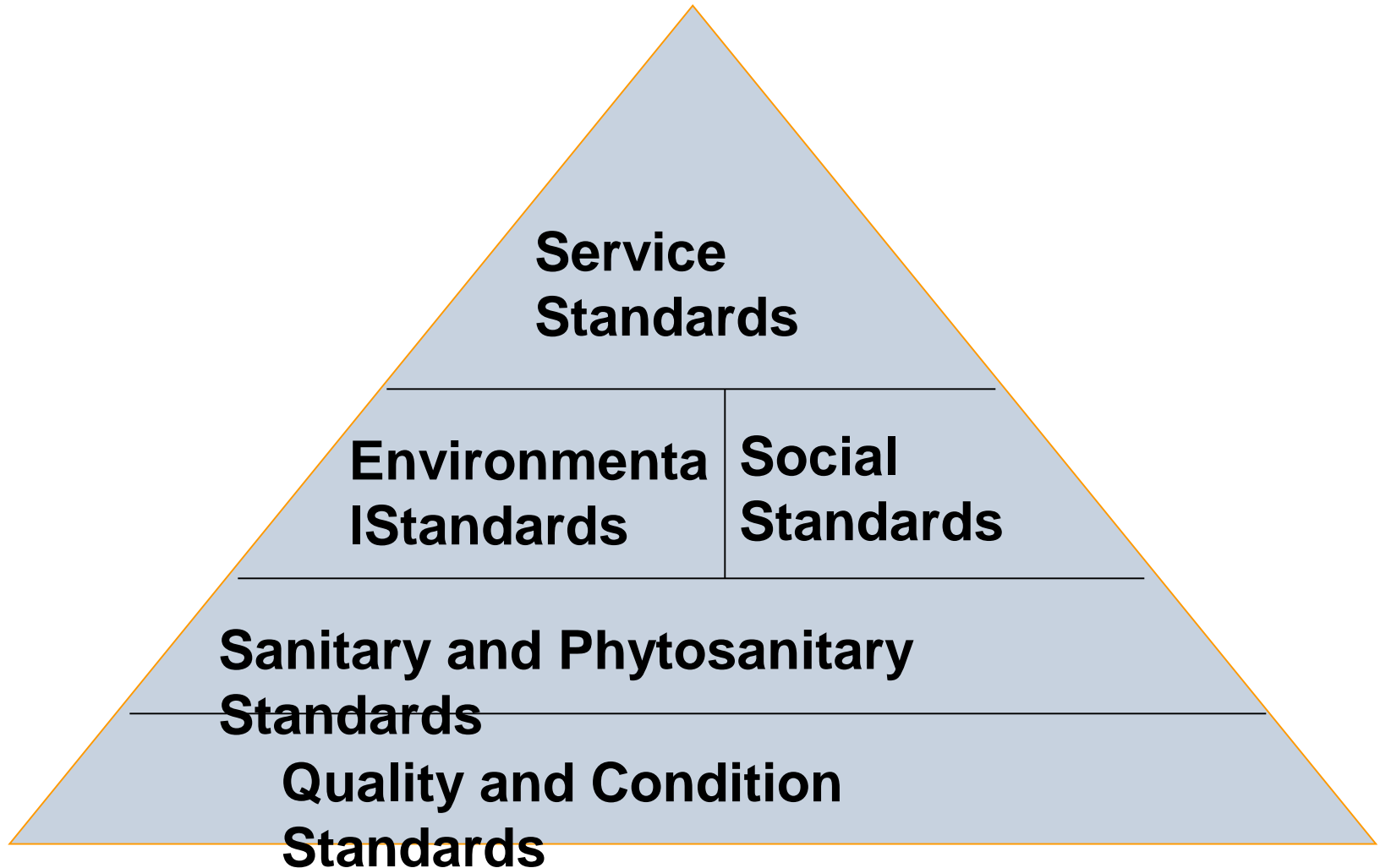
ENERGY
New residence
Terms and



Kellogg boosts efforts to help battle climate change



Standards are Changing the Rules of the Game as Larger Volumes are Procured at a Distance



Traceability underlines Quality- and Food Safety Leadership.

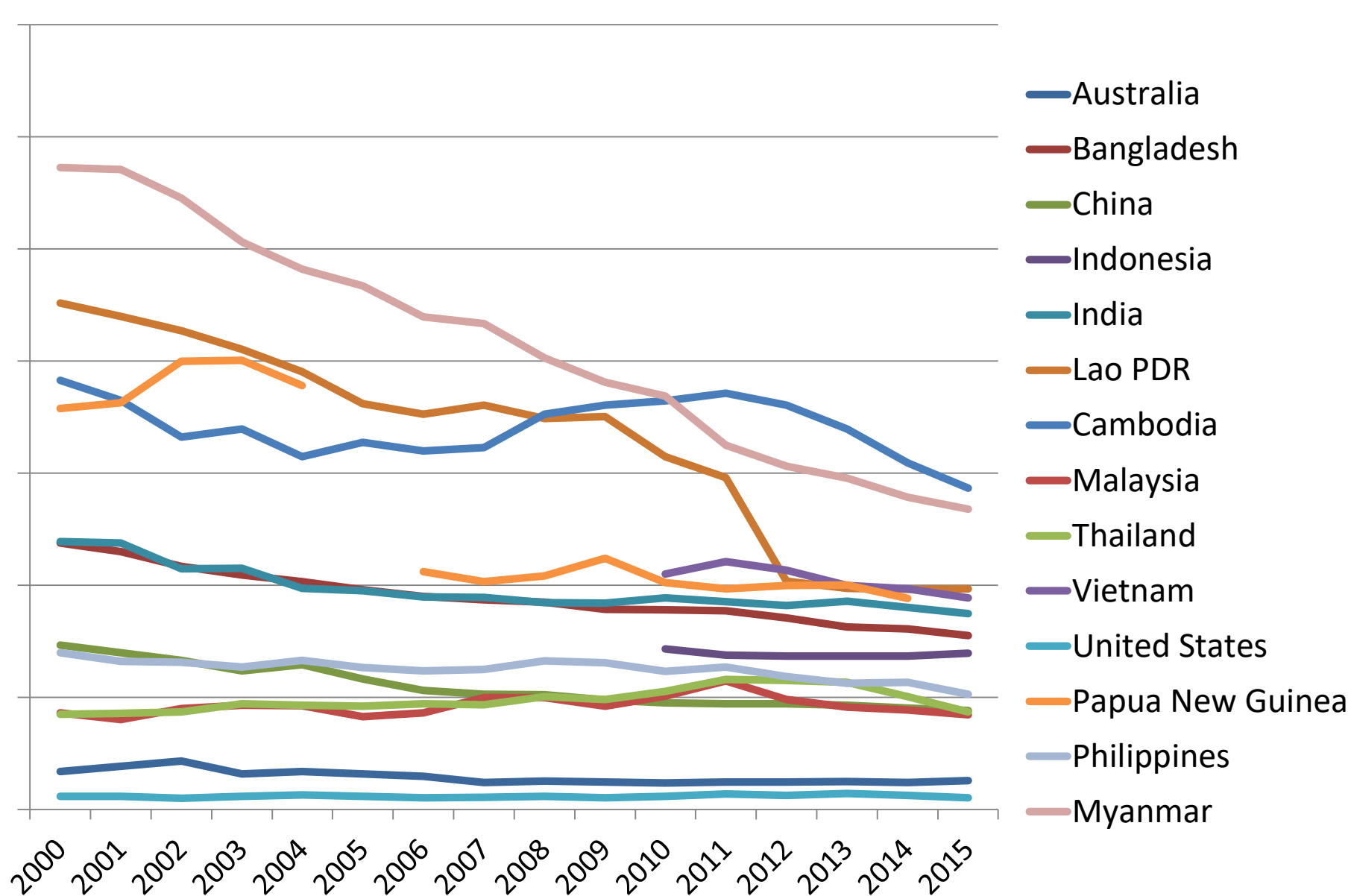
Star Farm:

- China's first agriculture consulting firm
- Initiated by METRO to train local farmers/manufacturers:
 - Good Agricultural Practices (GAP)
 - Good Manufacturing/Hygiene Practices (GMP/GHP)
 - Good Distribution Practices (GDP).
- Maintaining quality control directly at the source
- Fulfilling the "From Farm to Fork" promise
- Monitoring every process detail from farm to fork.



What is the relevance for Myanmar?

Agriculture, value added (% of GDP)



Implications of trends for smallholders?

- Exclusion of smallholders?
- Higher returns = higher risks?
- Changes in types of risk?
 - degree of diversification
 - participation in value adding activities
- Exposure to new types of risk?
 - Depends on type of HVAP
- Climate change impact?
- Ability to manage and plan for risky events is crucial
 - Education, training, opportunities to manage risk

Market-related Risks – input & product markets

- Market Access
 - Product market concerns related to smallholders being excluded if market for high value agricultural products is only modern channel
 - Input market concerns if smallholders are lacking human and social capital needed to access
 - Financing
 - Seed
 - Infrastructure
- Transaction costs
 - Access to market information, grading, certification services
- Market volatility
 - Product markets can be more stable
 - Issues related to putting “eggs all in one basket”
 - Policy and regulations?
 - Export markets?

Market-related Risks – input & product markets

- Price level
 - Assumption that price is higher for farmers
 - Market power? Information asymmetry?
 - Shifting of price risk?
- Price volatility
 - Affected by changes in income, trade, politics
 - Highly dependent on quality and reputation
 - Opportunities to lock-in a price through contracting both for inputs and outputs / products

Production Risks

- Stringent quality and quantity (timing) requirements mean production risks are important
 - Weather-related
 - Natural Disasters and extreme weather events
 - Biological and environmental
- Alternative varieties and production methods?
- Diversification opportunities?

Logistical and Infrastructural Risks

- Logistics and infrastructure are typically more important when producing HVAP
 - Quality requirements
 - Safety standards
 - Grading and certification
 - Packaging
 - Transportation
 - Storage
 - Financing
- Access may be increased, depending on business model

Constraints to pro-poor agribusiness development in agri-food value chains

- Access to capital
 - Land, technology, water, labour, management;
- Access to information and innovations;
- Poor economies of scale and competitiveness;
- Vulnerable to risk and shocks;
- Cultural, social and gender barriers exclude entry or influence;
- Poor business enabling environment

Analyzing Market Systems

1. Macro-level

- High Level trends and issues
- E.g. demographic trends, economic growth
- International trade

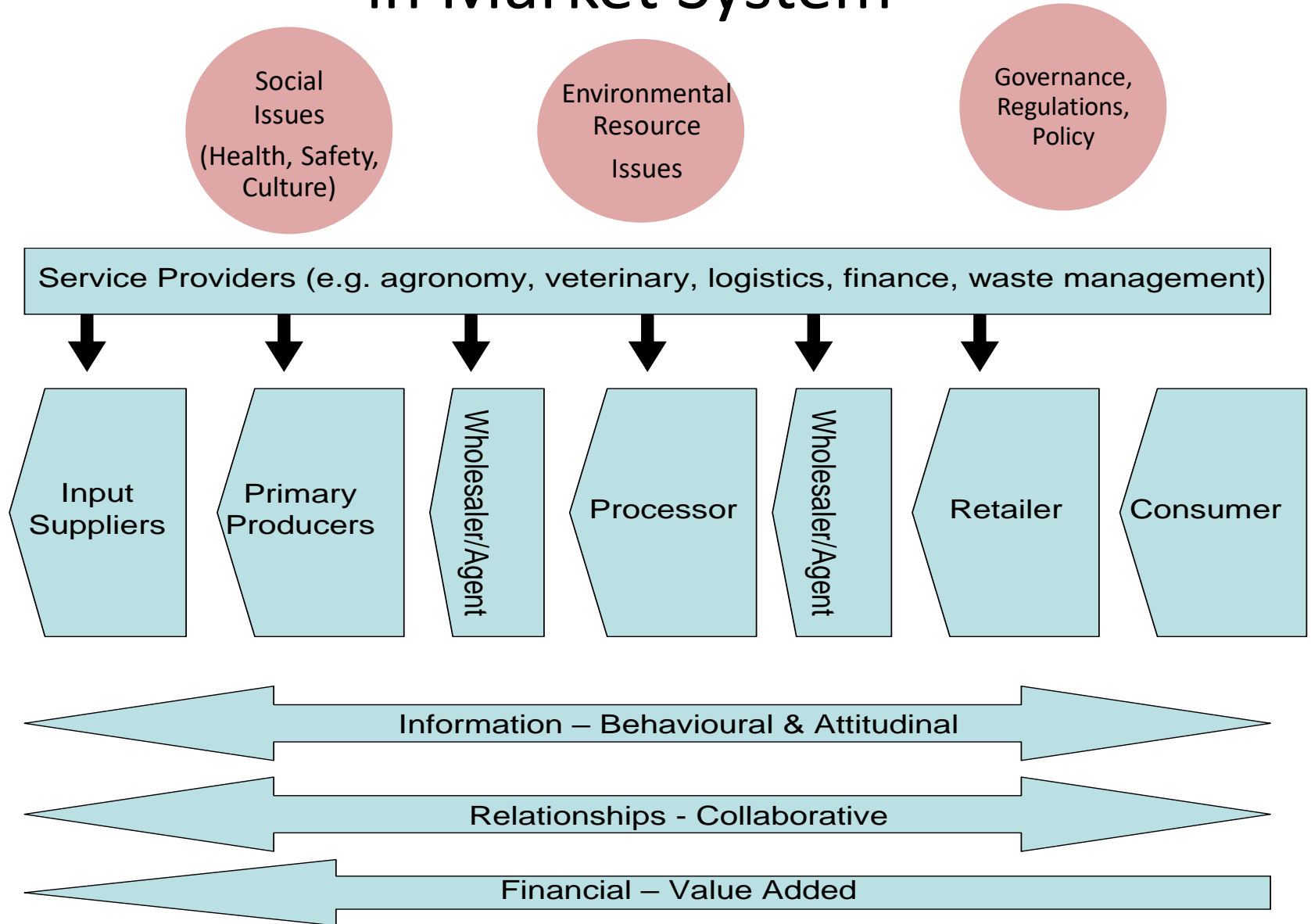
2. Meso-level

- How the market system operates and why
- E.g. value chain and end market analysis
- Informs overall project goals

3. Micro-level

- Understanding interventions and unique needs of market actors or institutions that will drive desired change in market system.

Improve food security by understanding issues in Market System



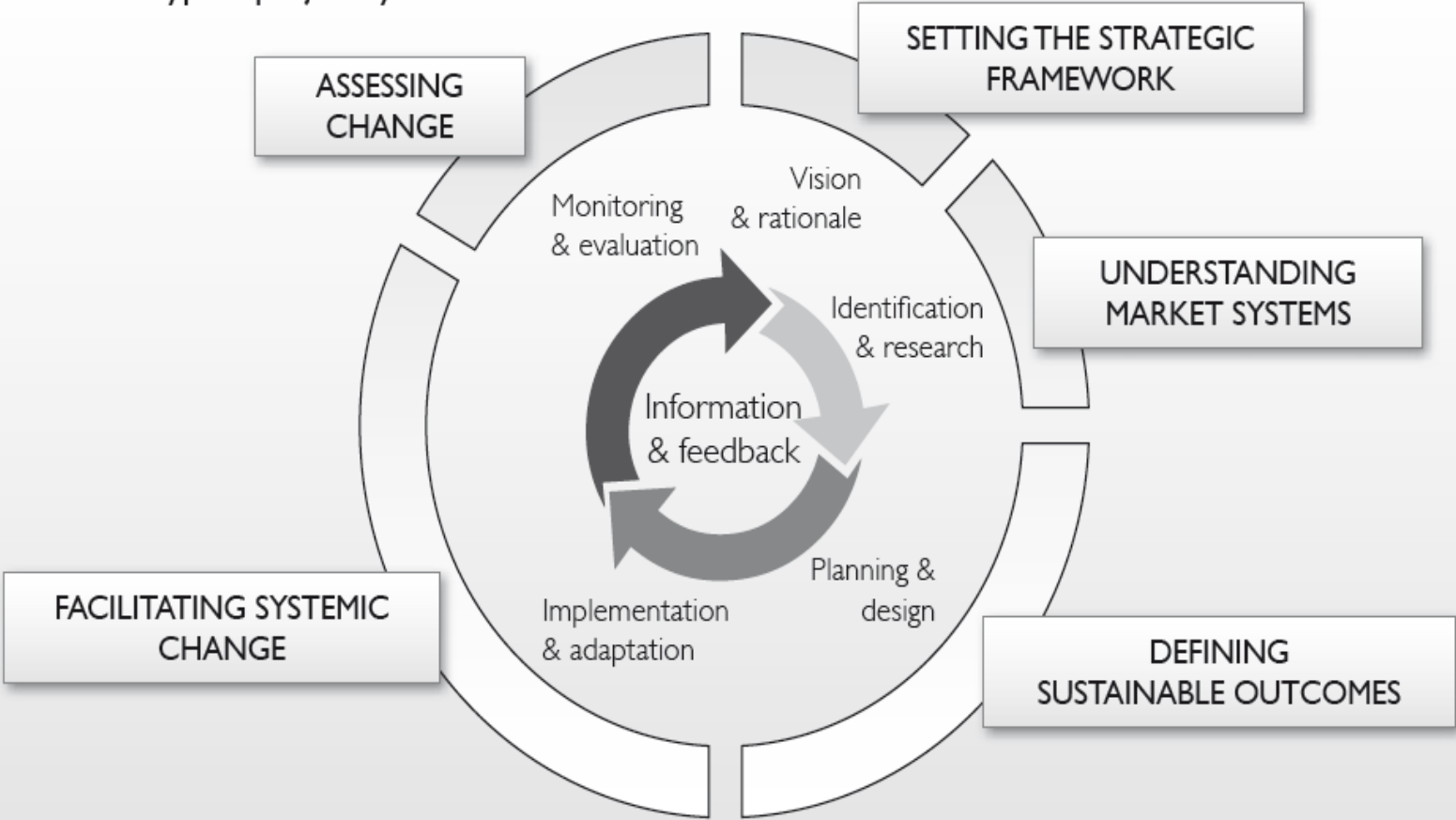
Market Research can lead to more Efficient Food Systems

- Improve translation and uptake of R&D
 - Understand how economic decisions of individuals, firms, and institutions are influenced
- Evaluate role for government and policy in food system
 - Market failures
 - Efficient design of policy and development programs
- Investigate market opportunities for smallholders
- Investigate impact of programs on value chain, community, livelihoods

Market Failures?

- Public goods – food security, food safety
- Externalities – increasing use of inputs, climate change, obesity and NCD
- Market power
 - Buyer and seller side
 - Prices - too high or too low?
 - Access to innovative products and technologies?
- Asymmetric information
 - Info. missing or incorrect
 - Inefficient purchasing decisions

Figure 5
M4P process within a typical project cycle





Thank you! Questions?

<http://www.adelaide.edu.au/global-food>
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