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# Demographic Trends: Implications for Future Food Demand

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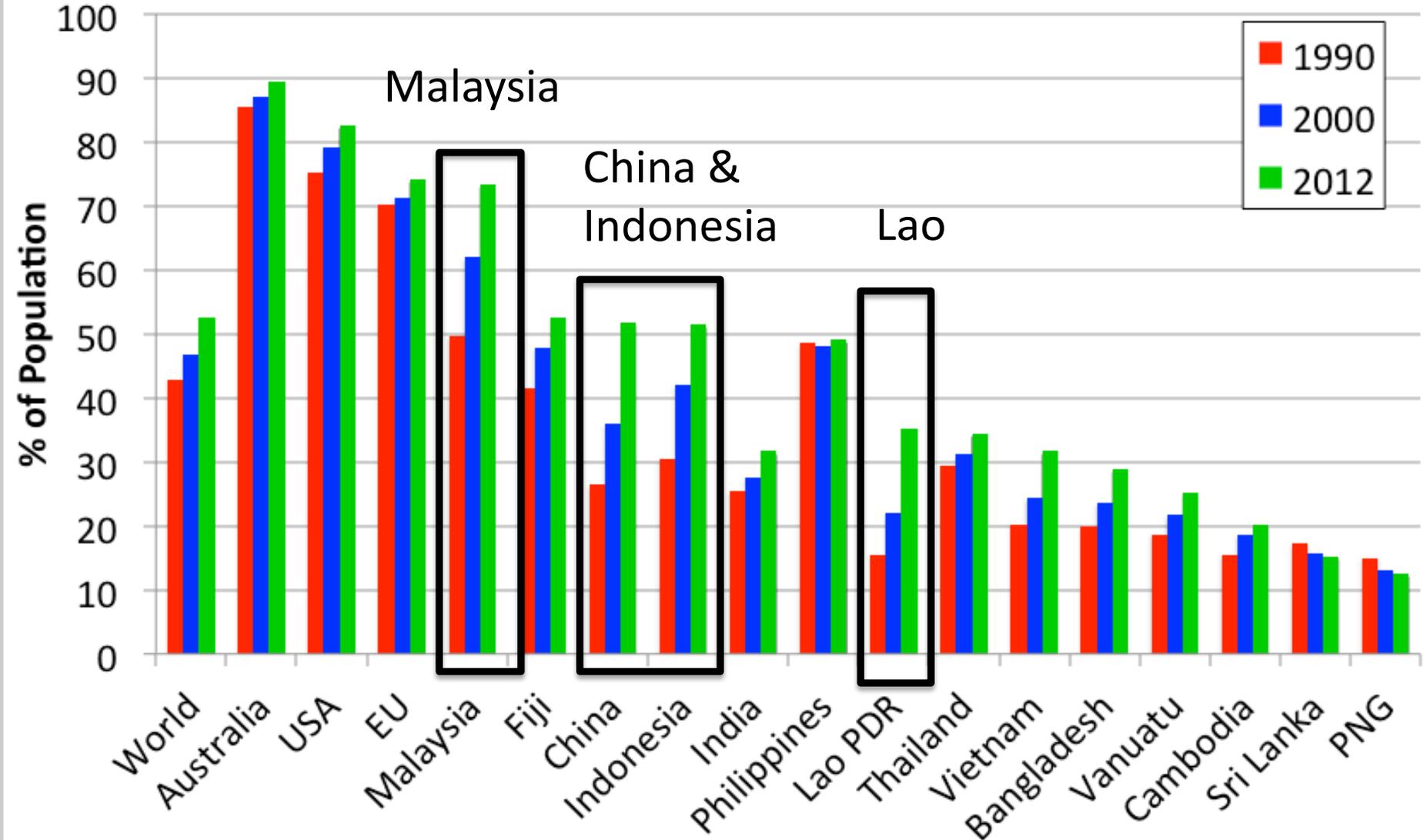
2015 Agricultural Symposium  
Federal Reserve Bank of Kansas City  
14 July, Kansas City

# Overview of Demographic Change- Opportunities for Agribusiness?

- Growing populations – 2 bn more mouths to feed especially in Asia and Africa
- Increasing demand for food (70-100%)
- Urbanization – fewer farmers
- Growing disposable income – higher value food
  - Large middle class in Asia
- Increasing demand for credence attributes
  - Safety certifications, organic, ethical and social attributes (e.g. animal welfare, sustainable)
- Food-related services

# Urbanization

## % of Population Living in Urban Area (1990-2012)

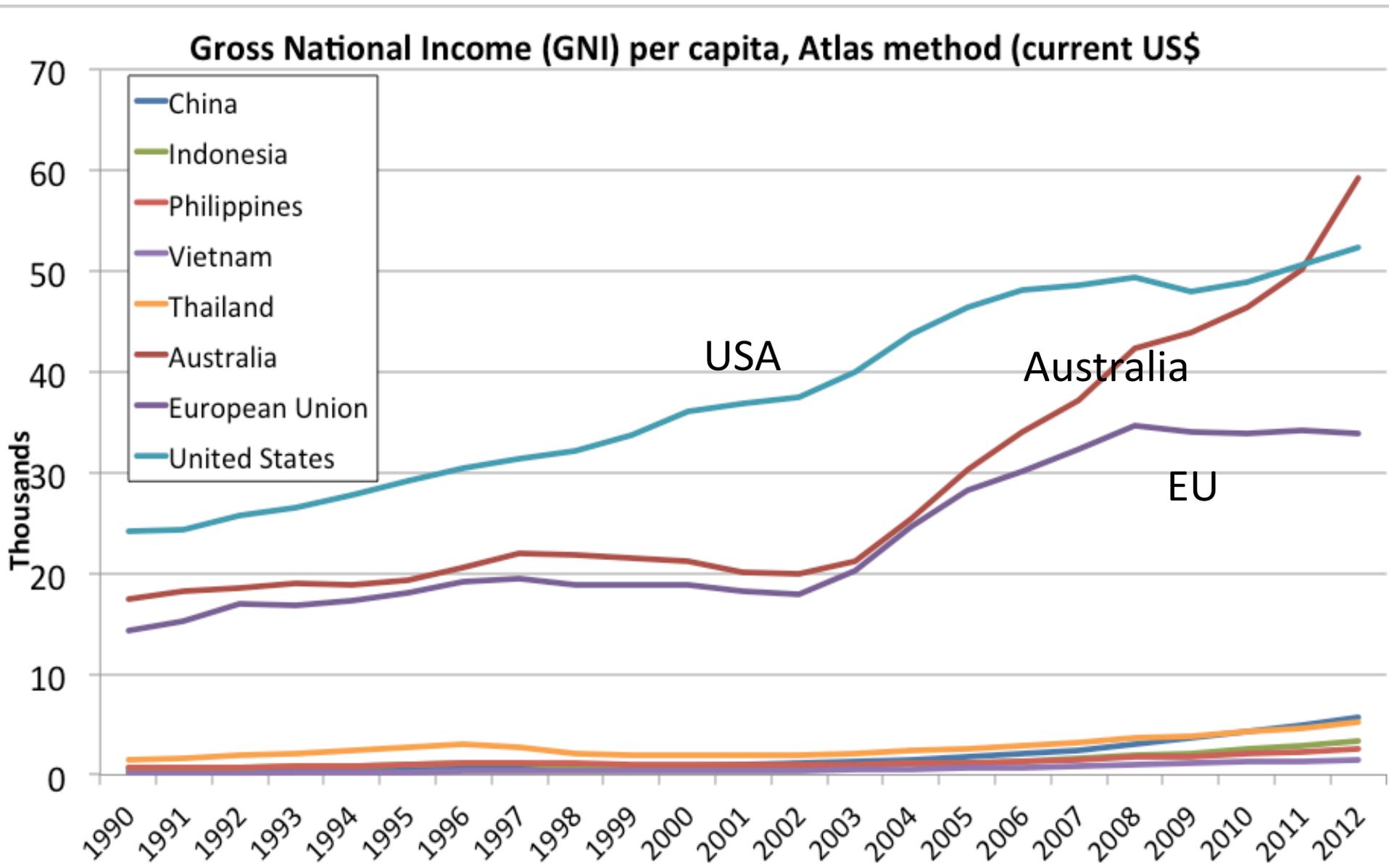


# Smallholders & Food Demand

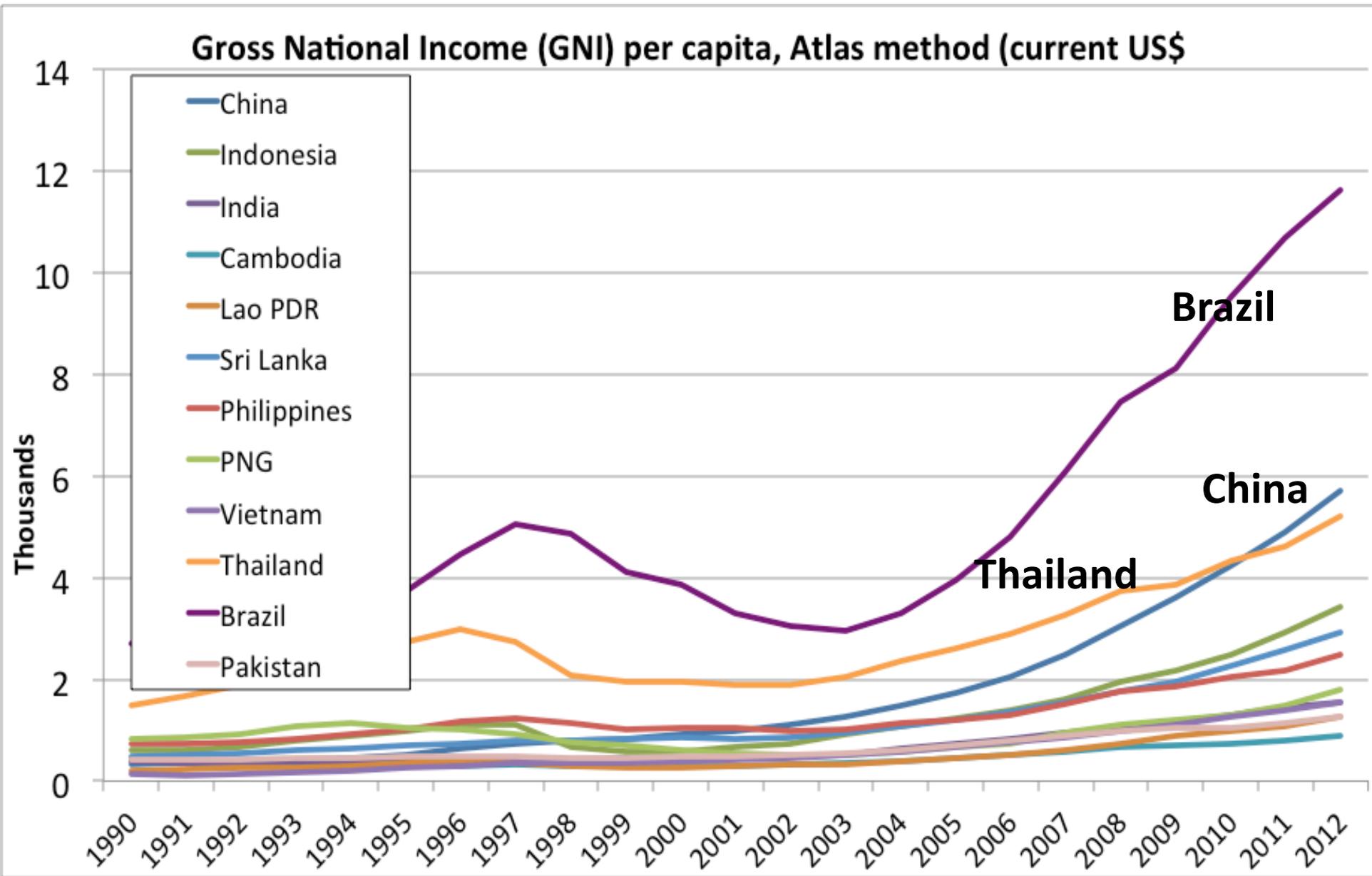
- Produce ~80% of the food consumed in developing countries (IFAD, 2011)
- Smallholder farmers contribute significantly to global food production (Kremen et al., 2012)
  - 50% cereal,
  - 60% meat
  - 75% dairy
- Grain accounts for only 25% of Asia's food consumption; majority (75%) is milk, meat/fish, oil, pulses, produce (Reardon, 2013)



# Rising Disposable Incomes (1990-2012)

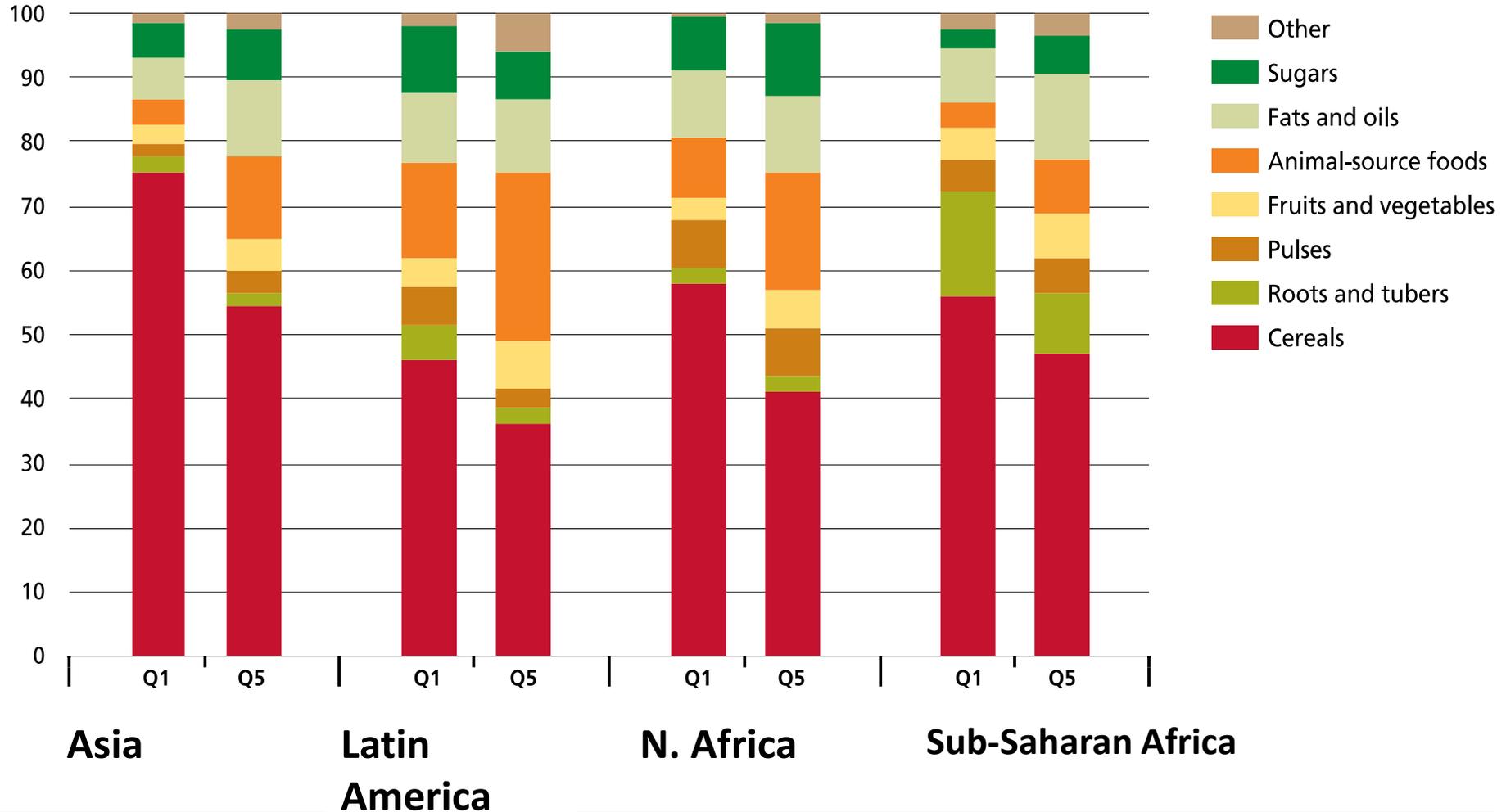


# Rising Disposable Incomes (1990-2012)



# Dietary Upgrading

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

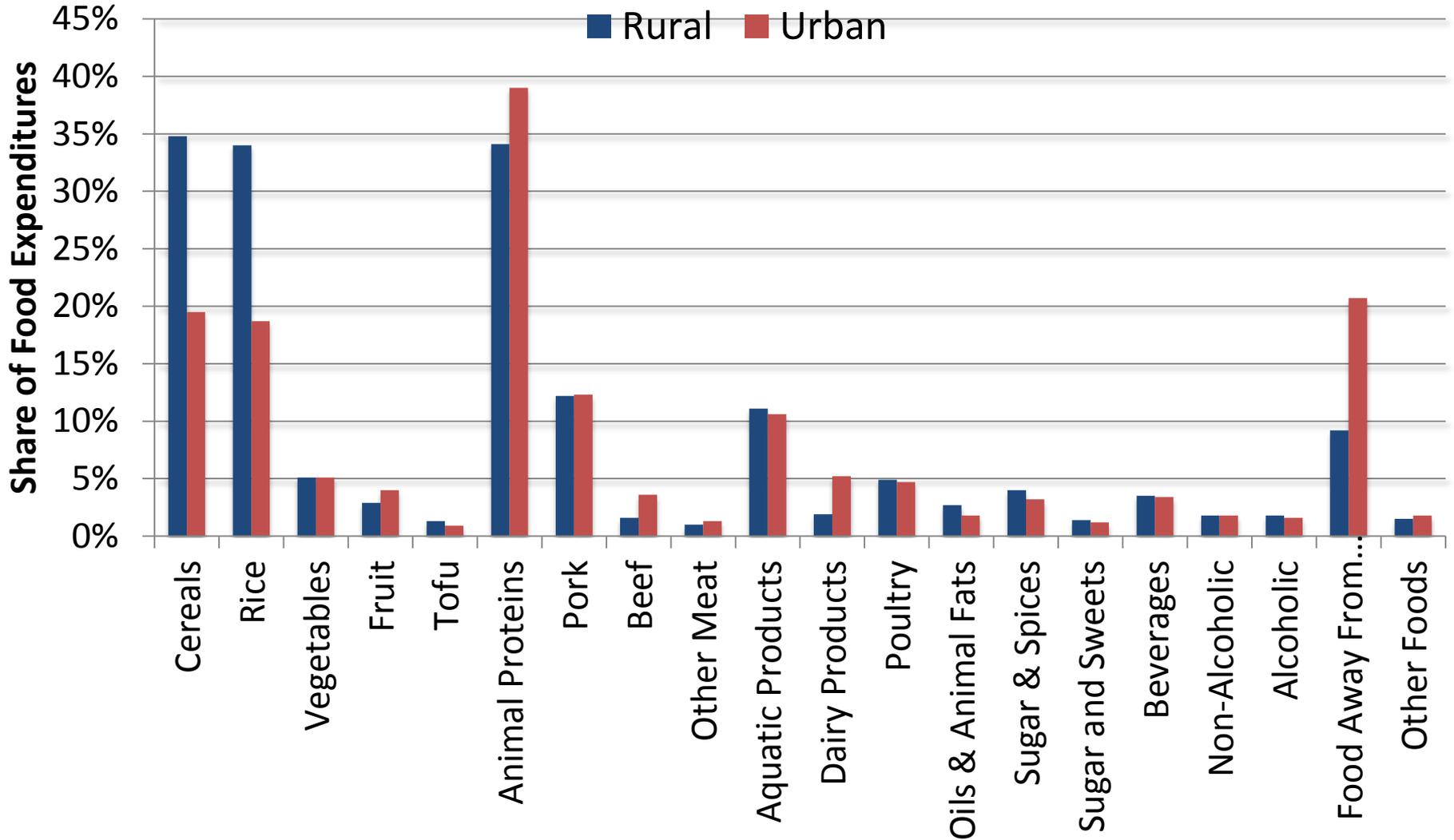


Note: Data refer to households of lowest and highest income quintiles in 47 developing countries.

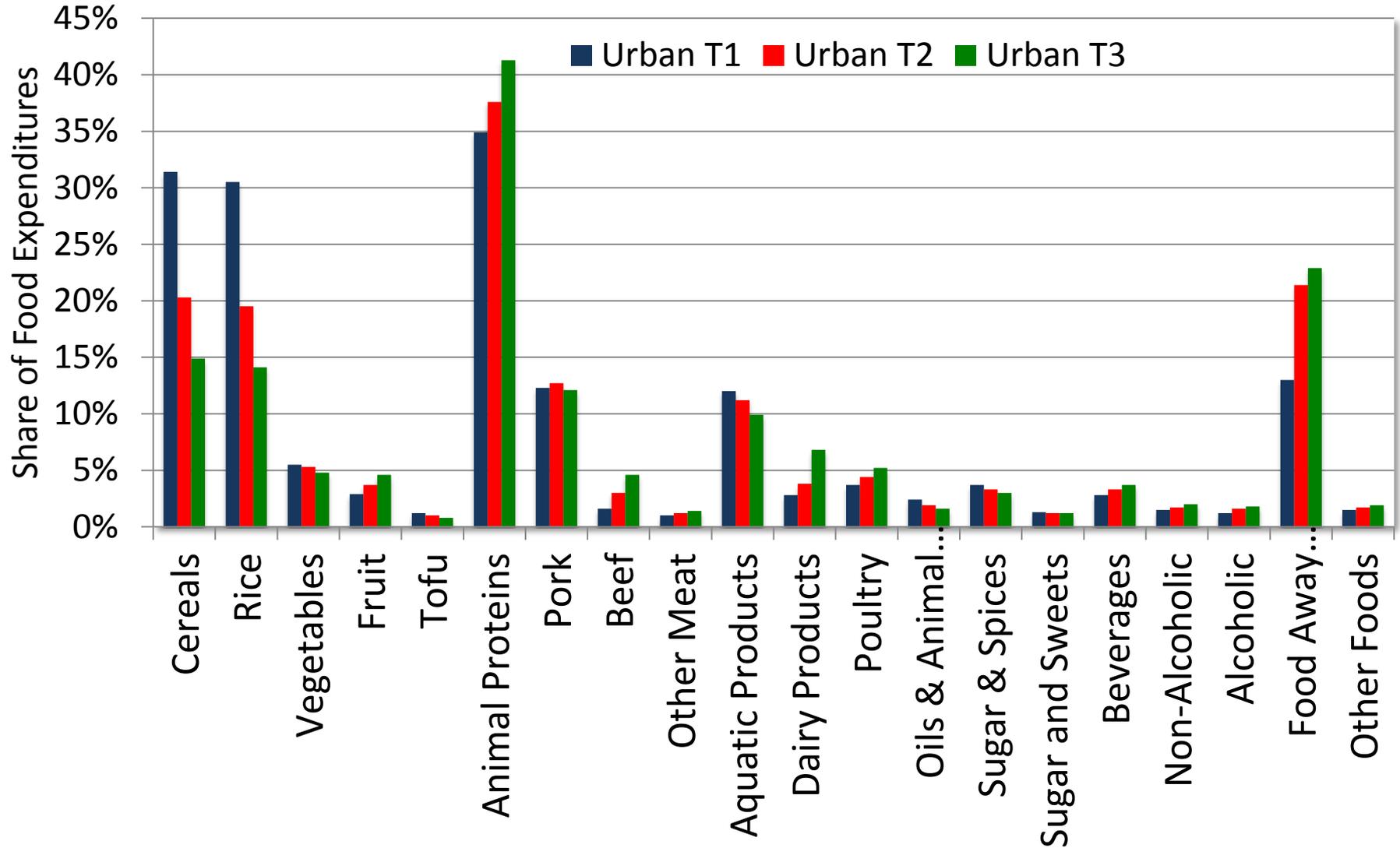
Source: The State of Food Insecurity in the World 2012, FAO available at <http://www.fao.org/publications/sofi/en/>

# Vietnam, Rural vs. Urban

## Total Food Expenditure Shares (2010)



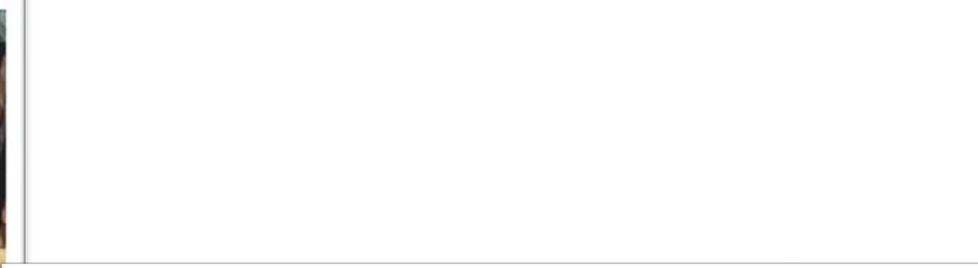
# Vietnam, Total Food Expenditure Shares by Income Tercile (2010)





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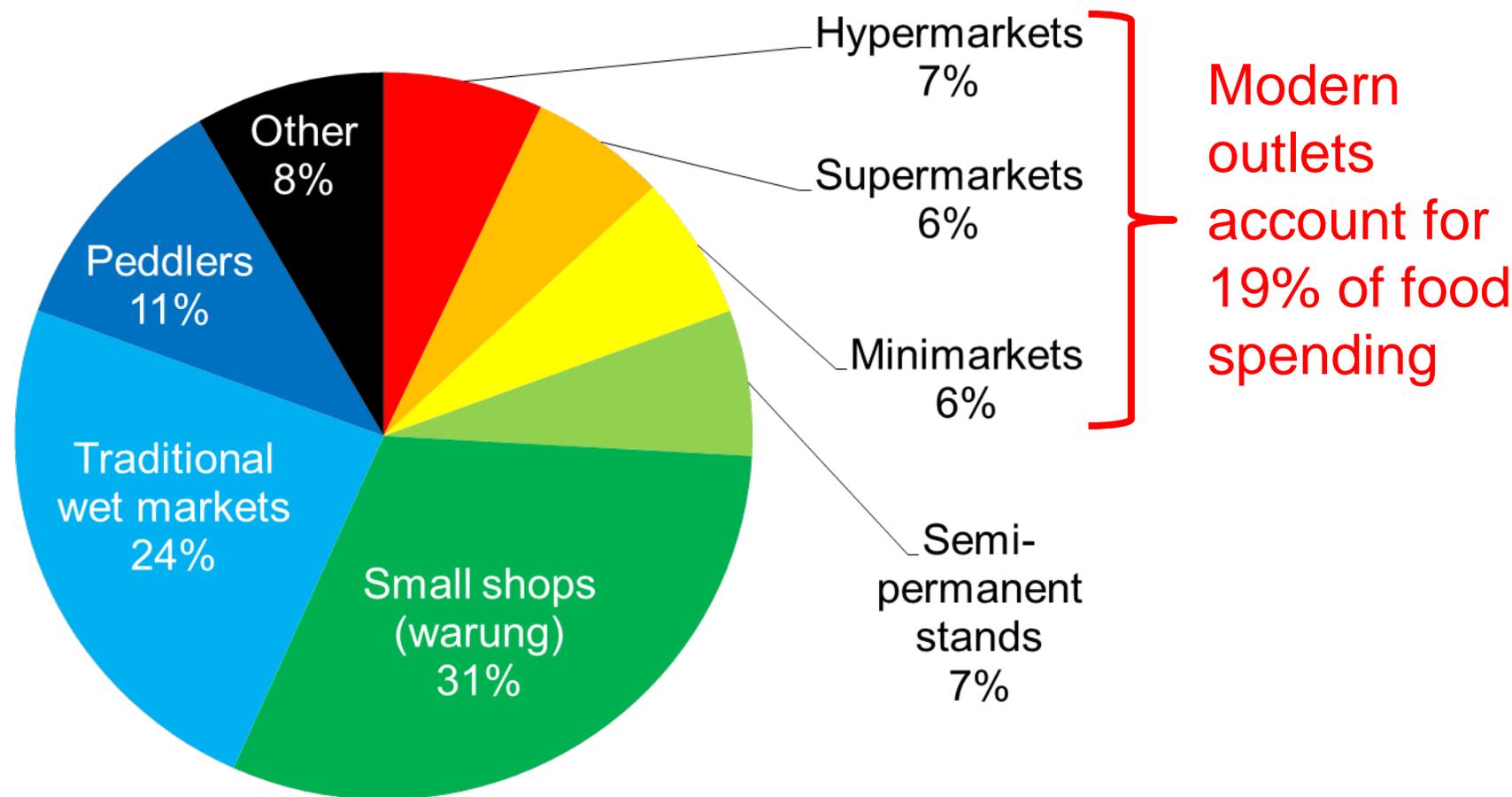


# Food Safety Issues

- 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)



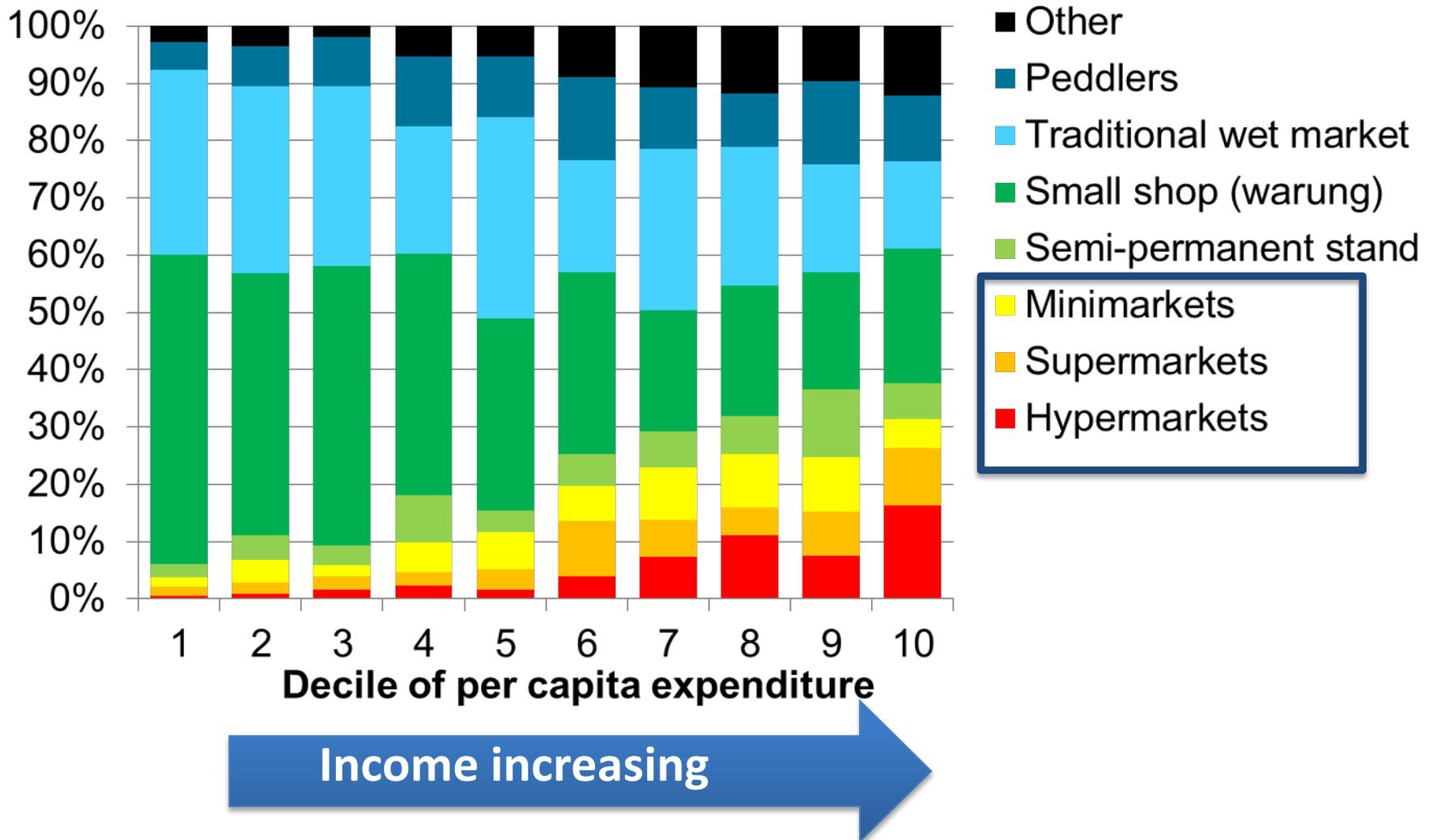
# Indonesian share of food expenditures by type of food outlet



Minot, et al. (2013). Urban shopping patterns in Indonesia and their implications for small farmers. *High Value Agriculture Working Paper #4*. Washington, D.C.: International Food Policy Research Institute (IFPRI)

<http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/127967>

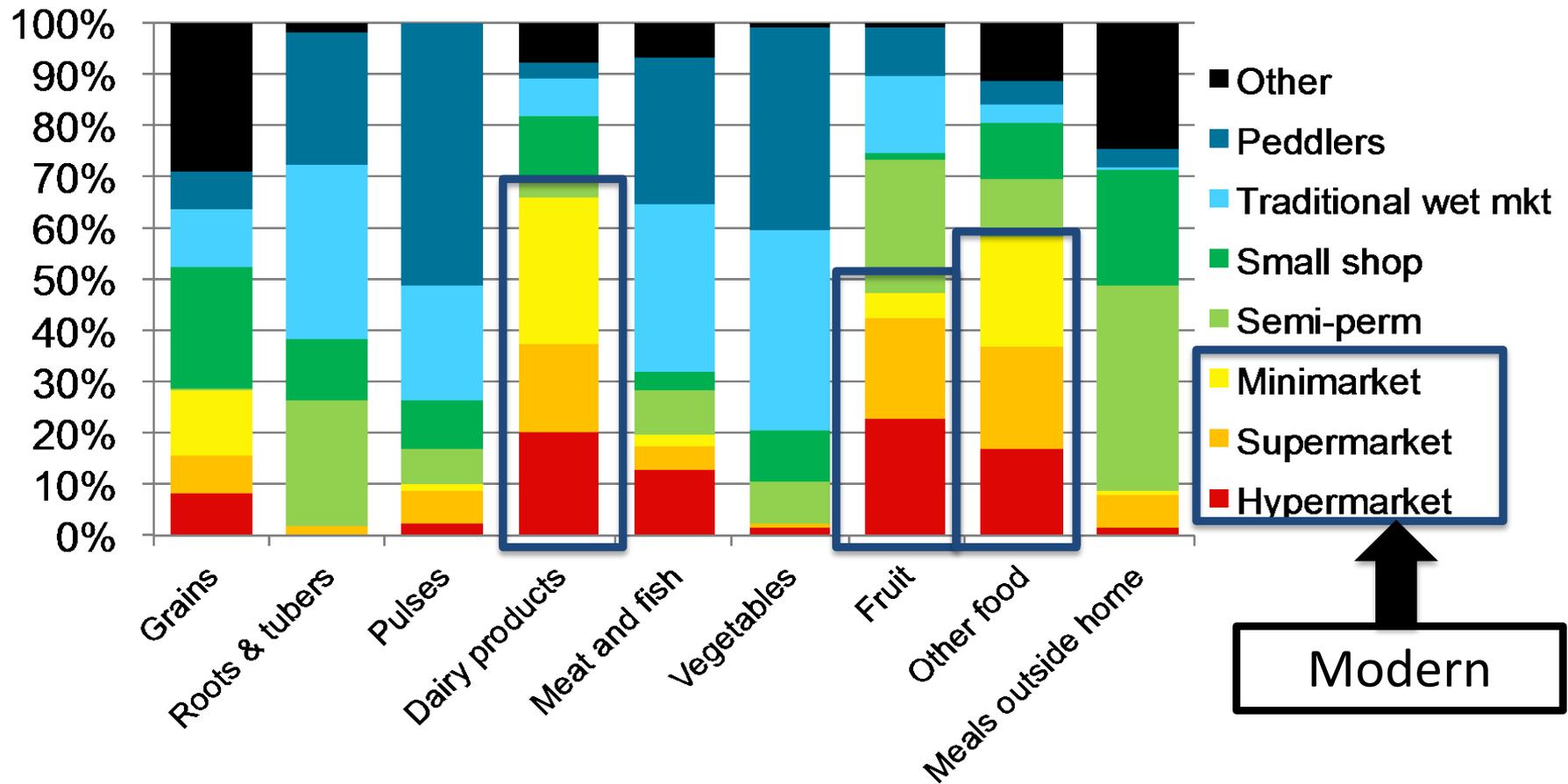
# Urban Indonesian share of food expenditures by type of food outlet and income



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<http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/127967>

# Urban Indonesian share of food expenditures by type of food outlet & food group



Minot, et al. (2013). Urban shopping patterns in Indonesia and their implications for small farmers. *High Value Agriculture Working Paper #4*. Washington, D.C.: International Food Policy Research Institute (IFPRI)

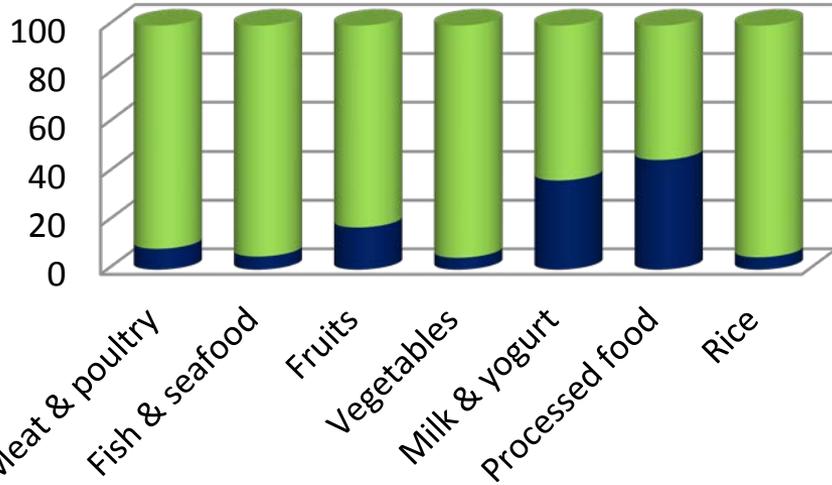
<http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/127967>

# Retail Outlet "Best" for Price, Quality, Safety, Information

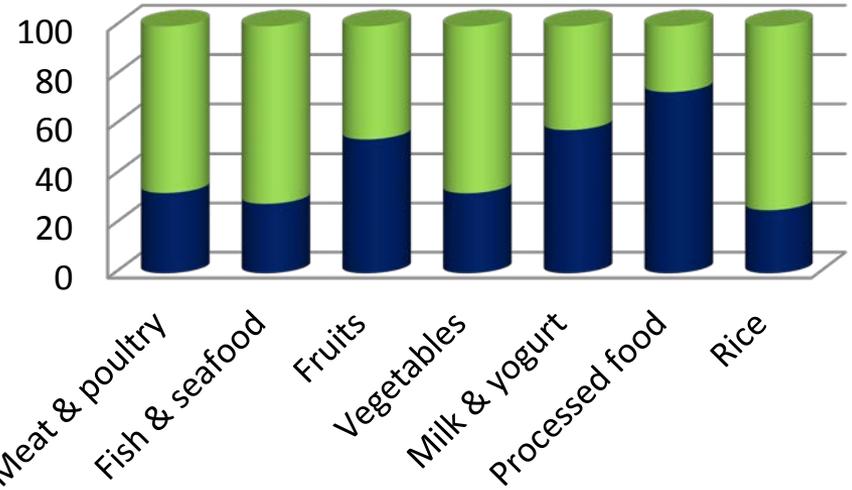
Modern = Blue

Traditional = Green

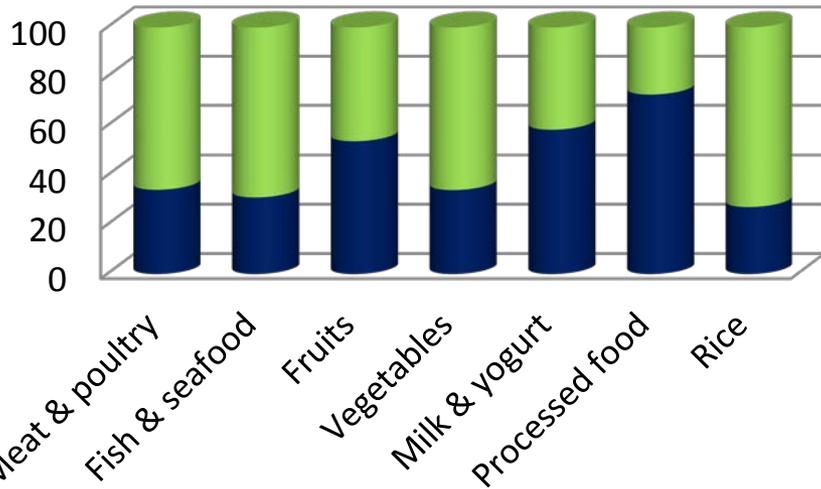
## Price



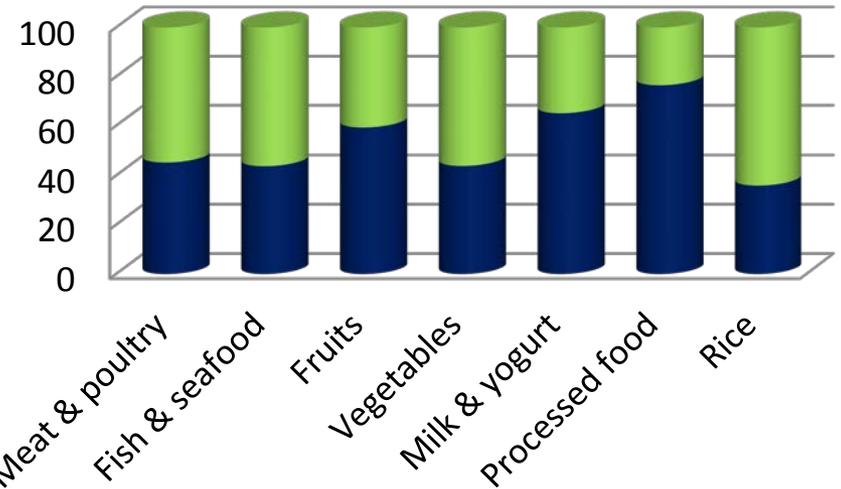
## Food Quality



## Food Safety



## Trust Product Information



爆品疯抢

新品专区

特价商品

热卖推荐

产地直送



爆品

【1L上质牛奶量版装】上质牛奶（盒装 1L）12盒组合

¥138

GO



爆品

玛亚科布雏菊女士香水50ml（瓶装）

¥350 ¥630

GO



爆品

苔丝酒庄干红葡萄酒（中粮直采 法国进口 瓶装 75...

¥78 ¥197

GO



爆品

时怡 中粮优选雪城玉枣五星（袋装450g）\*3

¥79 ¥208

GO



海南妃子笑

海南妃子笑1.5KG【包... 8元，新鲜荔枝果大、肉核小【不加枝】，“一骑... !

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团美味实惠等你来拿



【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

已有1283人购买  
剩余时间3天以上

¥258.00  
¥398.00

我要团



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...

已有314人购买  
剩余时间3天以上

¥79.00  
¥138.00

我要团

热门主题标签



办公室达人  
乐活族最爱  
补血养颜



我买网闪购 震撼登场 全场超值 最低三折起!

关注、绑定 有惊喜哦!

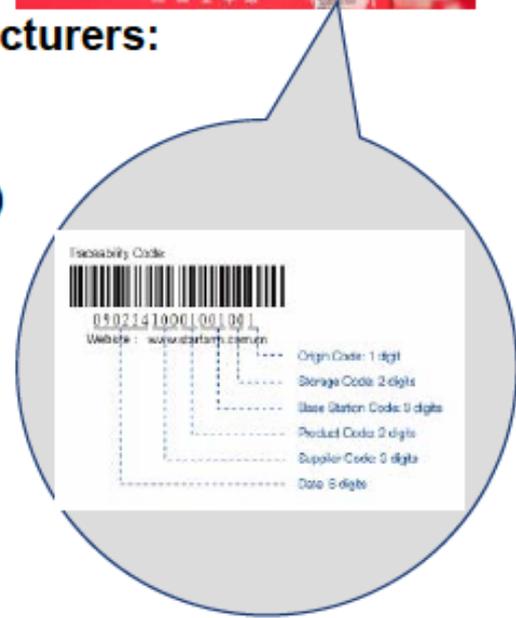


中粮我买网服务号

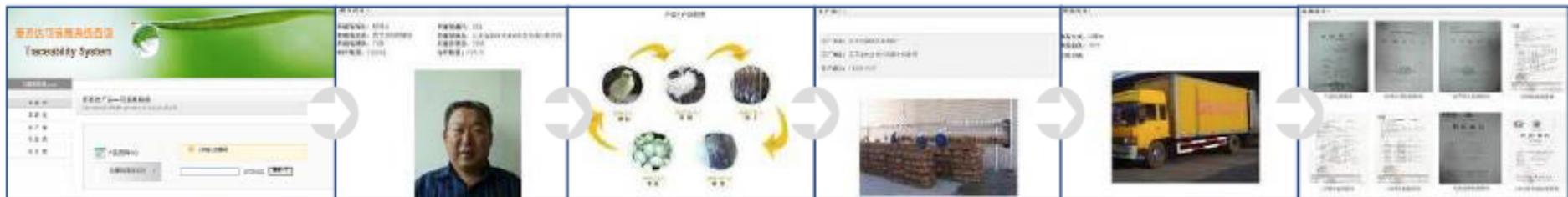
## Traceability underlines Quality- and Food Safety Leadership.

### Star Farm:

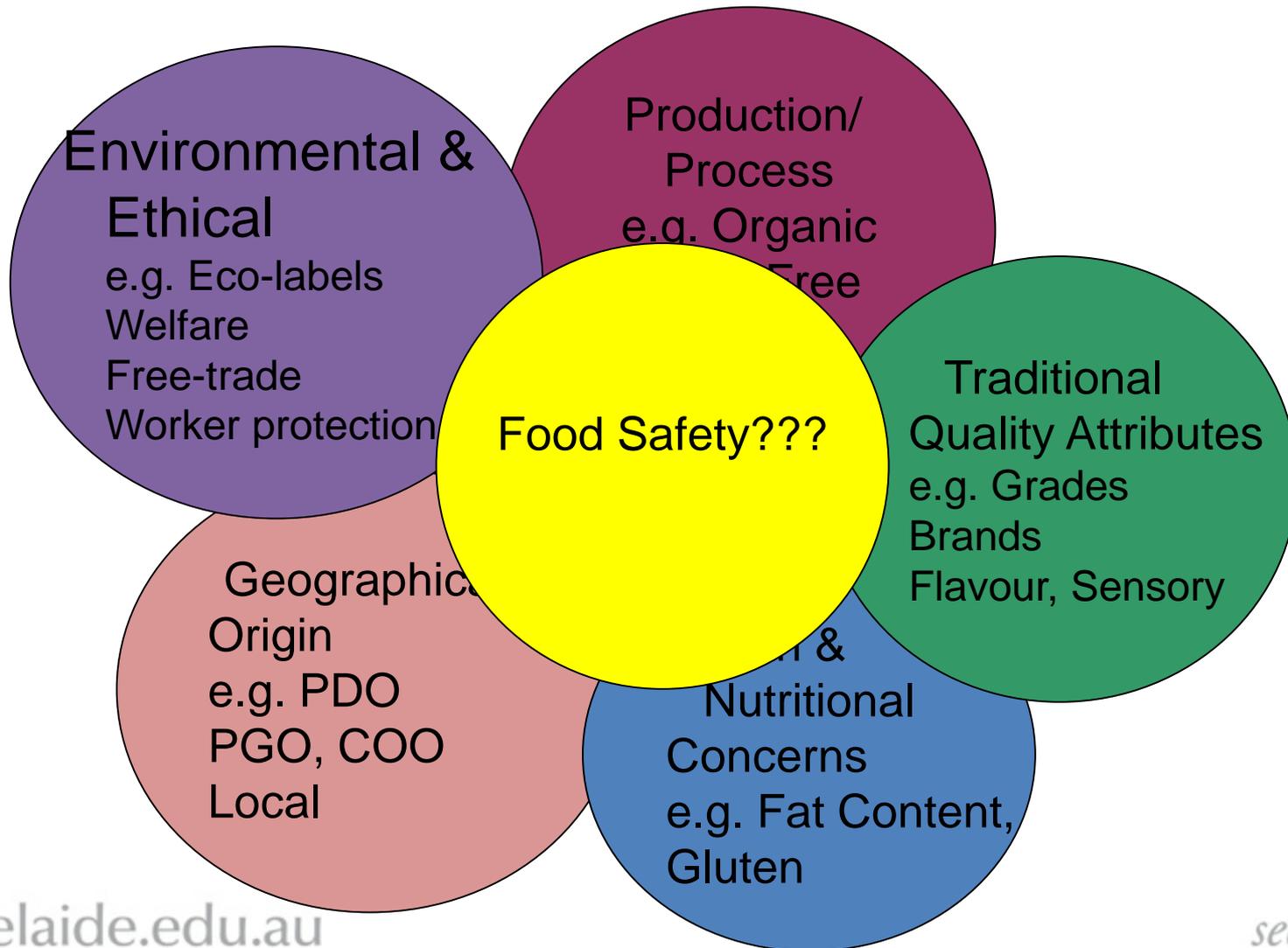
- China's first agriculture consulting firm
- Initiated by METRO to train local farmers/manufacturers:
  - Good Agricultural Practices (GAP)
  - Good Manufacturing/Hygiene Practices (GMP/GHP)
  - Good Distribution Practices (GDP).



- Maintaining quality control directly at the source
- Fulfilling the “From Farm to Fork” promise
- Monitoring every process detail from farm to fork.



# Food Quality Cues





Beijing



# Bogor, West Java





LIGHT

# Wet Market Surakarta, Indonesia



# Consumers are Conflicted

## Citizens = Public Values

- Social values
  - Environment
  - Local
  - Workers/society
  - Animals

## Consumers = Private Values

- Value for money
- Personal / family benefits
  - Safety
  - Enjoyment
  - Nutrition
  - Health
- Convenience



# Key Messages

- Increasing urbanisation, income and lifestyles are impacting
  - Demand for types of food products
  - Attitudes and concerns about food
  - Demand for safety and quality assurances (information)
  - Demand for social attributes (welfare, environment)
  - How and where consumers shop for food
    - Food-related services
- Consumers are heterogeneous –
  - dynamic preferences
  - Innovation treadmill



Thank you!

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

<http://www.adelaide.edu.au/global-food/blog/wendy.umberger@adelaide.edu.au>