



**Global Change and Rural Communities:  
is sustainable development still possible?**

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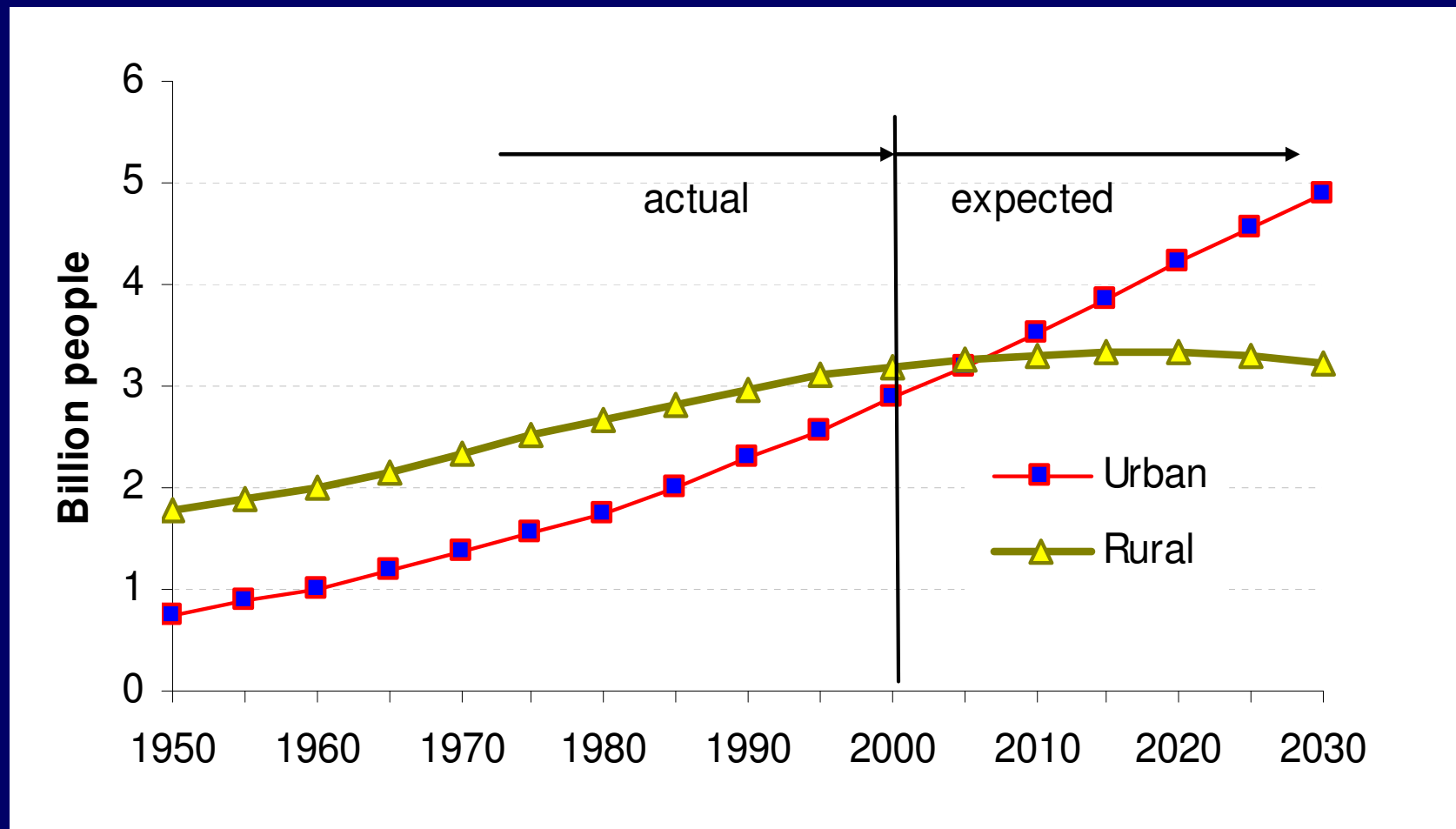
# Global Changes

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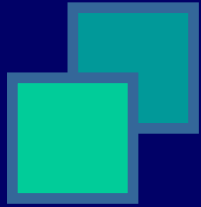


- Urbanization, Migration and Remittances
- Globalization and Trade Integration
- Information access (cell phones, internet, etc)
- Food and Energy prices & bio-fuels
- Climate Change

# Urban Population to Outnumber Rural

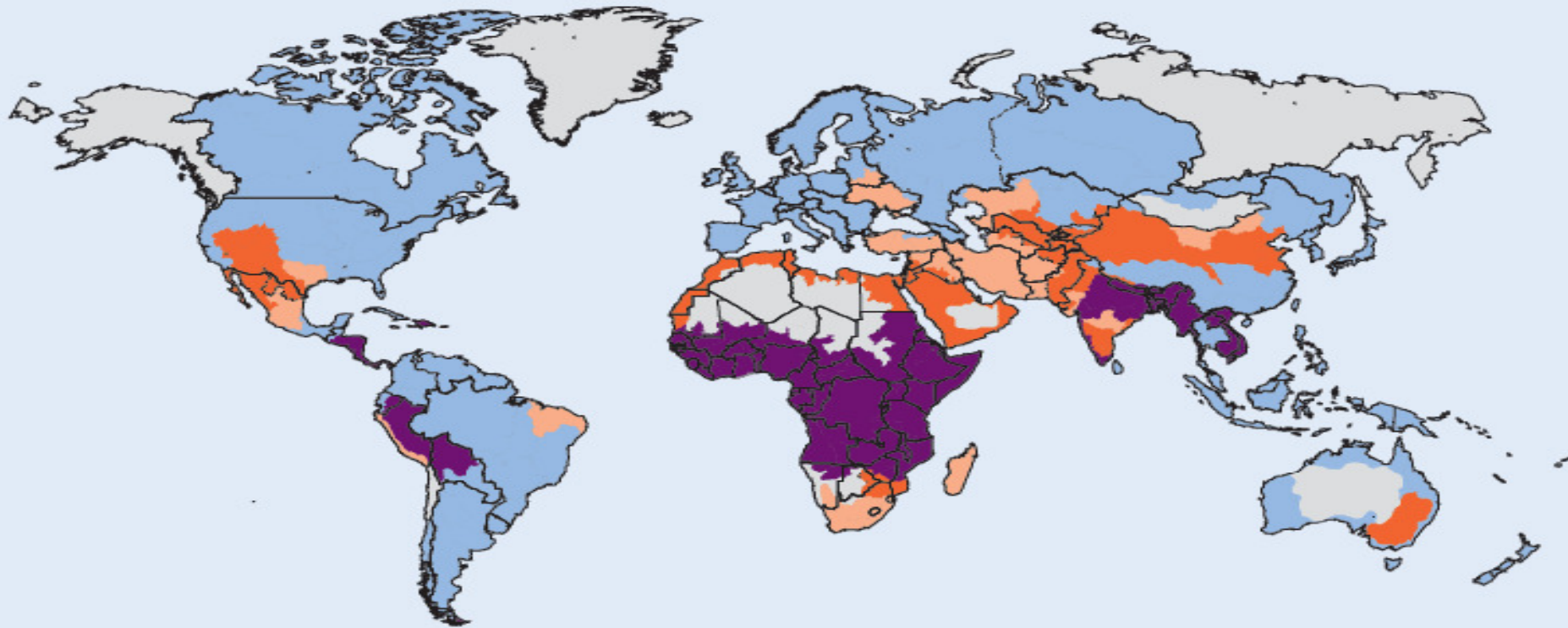
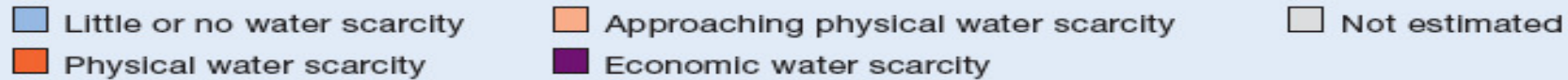


Source: UN, World Population Assessment 2002



# Areas of physical and economic water scarcity today

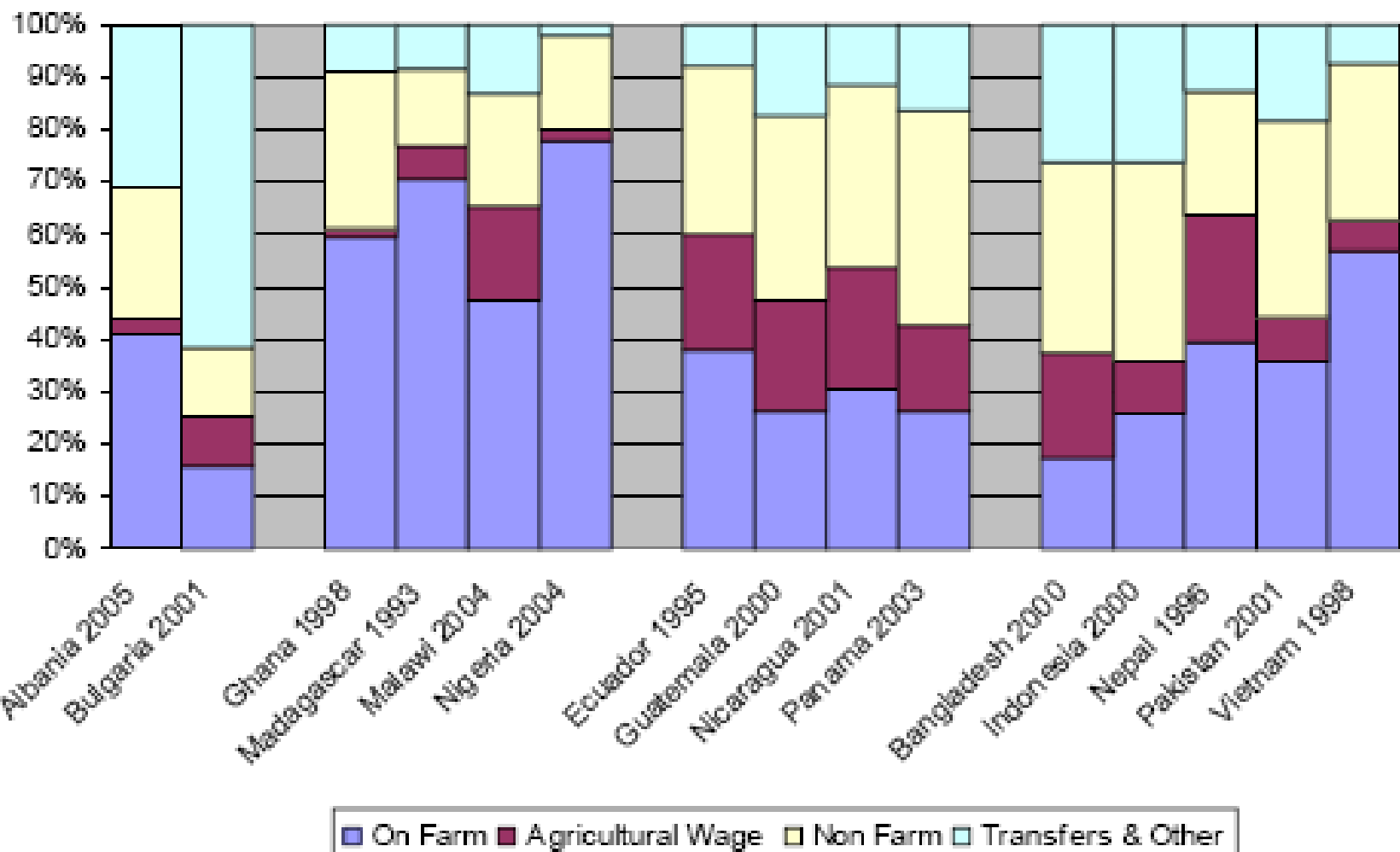
(IWMI, 2007)



## Definitions and indicators

- *Little or no water scarcity*. Abundant water resources relative to use, with less than 25% of water from rivers withdrawn for human purposes.
- *Physical water scarcity (water resources development is approaching or has exceeded sustainable limits)*. More than 75% of river flows are withdrawn for agriculture, industry, and domestic purposes (accounting for recycling of return flows). This definition—relating water availability to water demand—implies that dry areas are not necessarily water scarce.
- *Approaching physical water scarcity*. More than 60% of river flows are withdrawn. These basins will experience physical water scarcity in the near future.
- *Economic water scarcity (human, institutional, and financial capital limit access to water even though water in nature is available locally to meet human demands)*. Water resources are abundant relative to water use, with less than 25% of water from rivers withdrawn for human purposes, but malnutrition exists.

## Percent of rural h/h income from various sources







# Rural communities in an urbanizing world

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- Re-orientation of production systems
- Demographic change
- Transfers as a “new source of growth”
- New opportunities for agro-tourism and other environmental services



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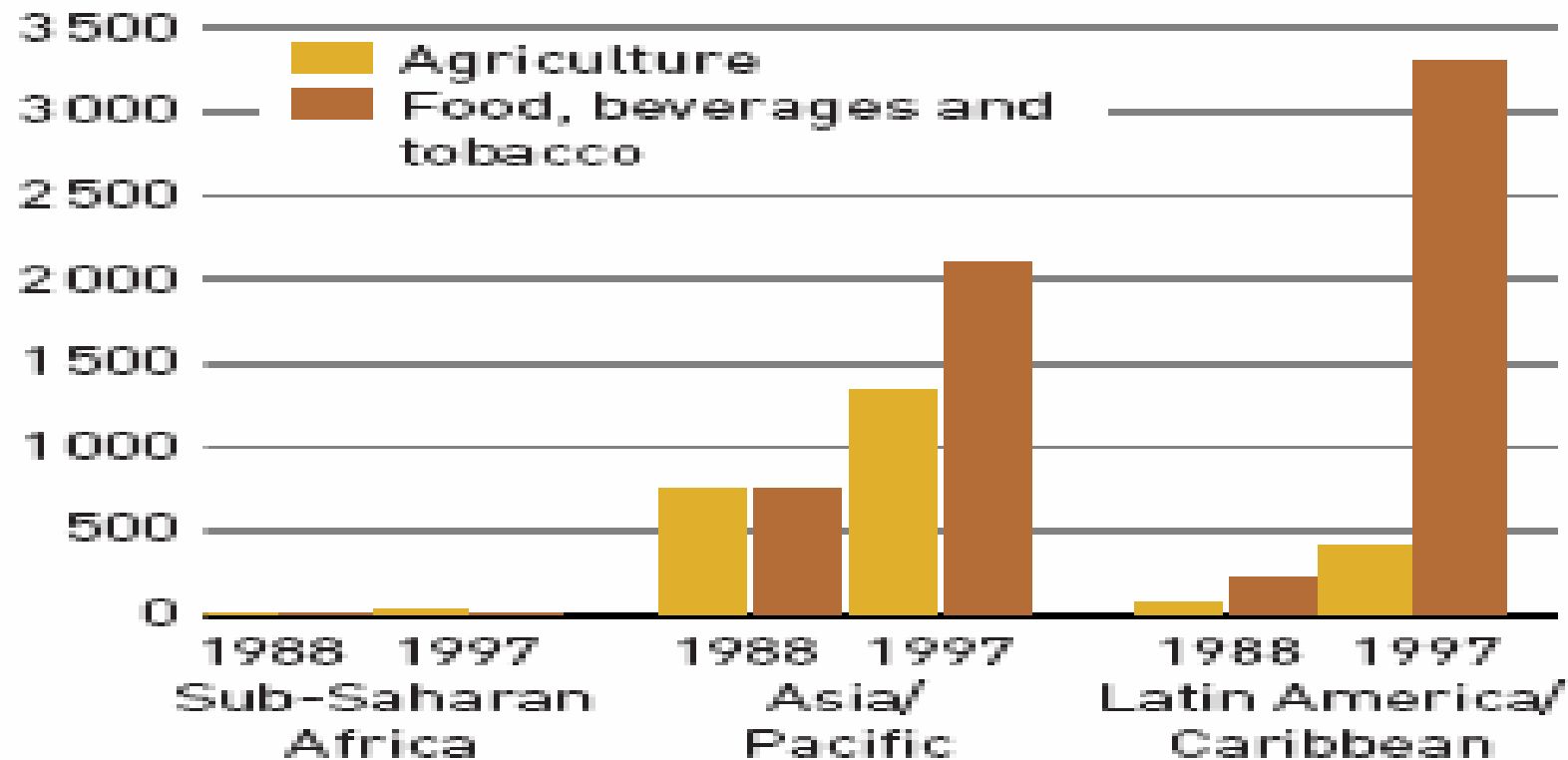
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Globalization is more than trade liberalization, it includes integration across communities and cultures through travel and communication

# FDI: The “other face “ of globalization

## Foreign investment in agriculture and the food industry, 1988–1997

US\$ (millions)



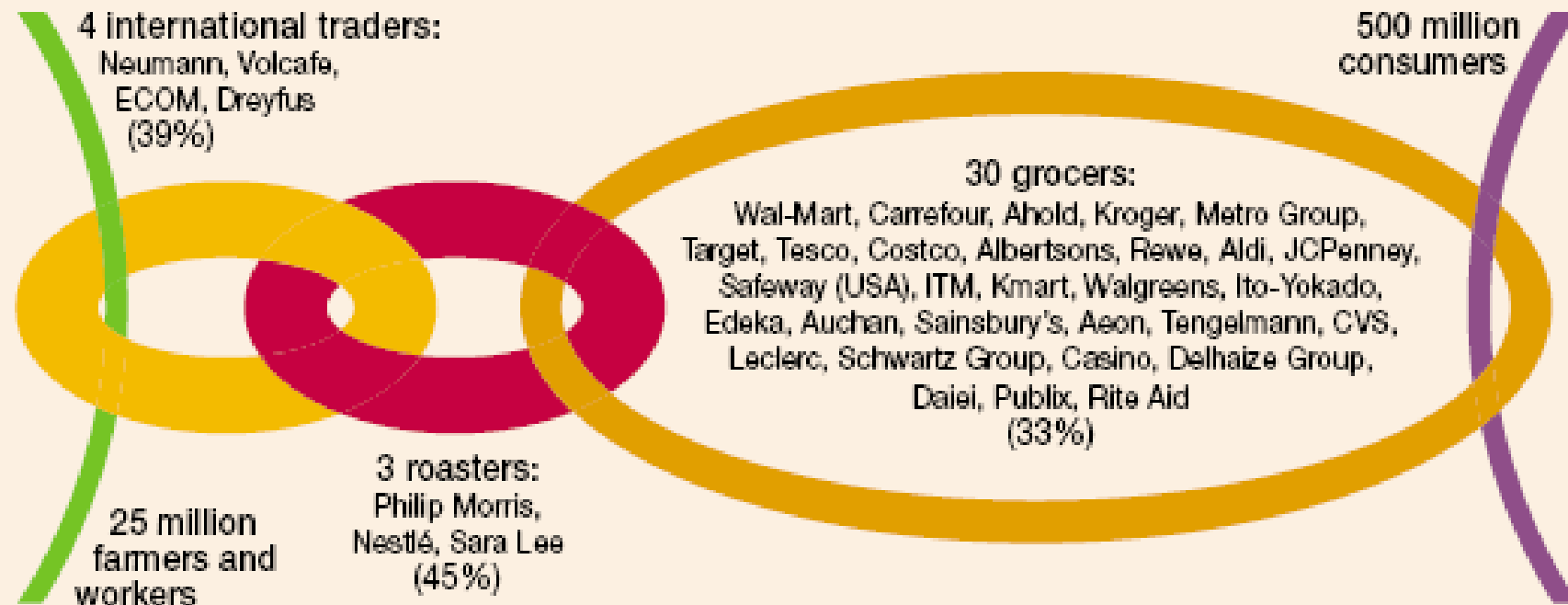
FAO: State of Food Insecurity, 2004

Source: FAO

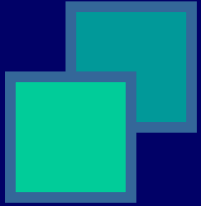


# Concentration of market power in global value chains: Coffee example

Four companies control almost 40 percent of global trade in coffee and only three roasters (Philip Morris, Nestlé and Sara Lee) control 45 percent of the global market.



Source: UK Food Group



# The agricultural trade deficit of LDCs is widening

Billion US\$



— total agricultural exports

— total agricultural imports





# Changing patterns of trade

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- Low competitiveness of domestic cereal and livestock production
- Trade in processed products expanding rapidly
- Capacity limitations in meeting sanitary and phyto-sanitary standards



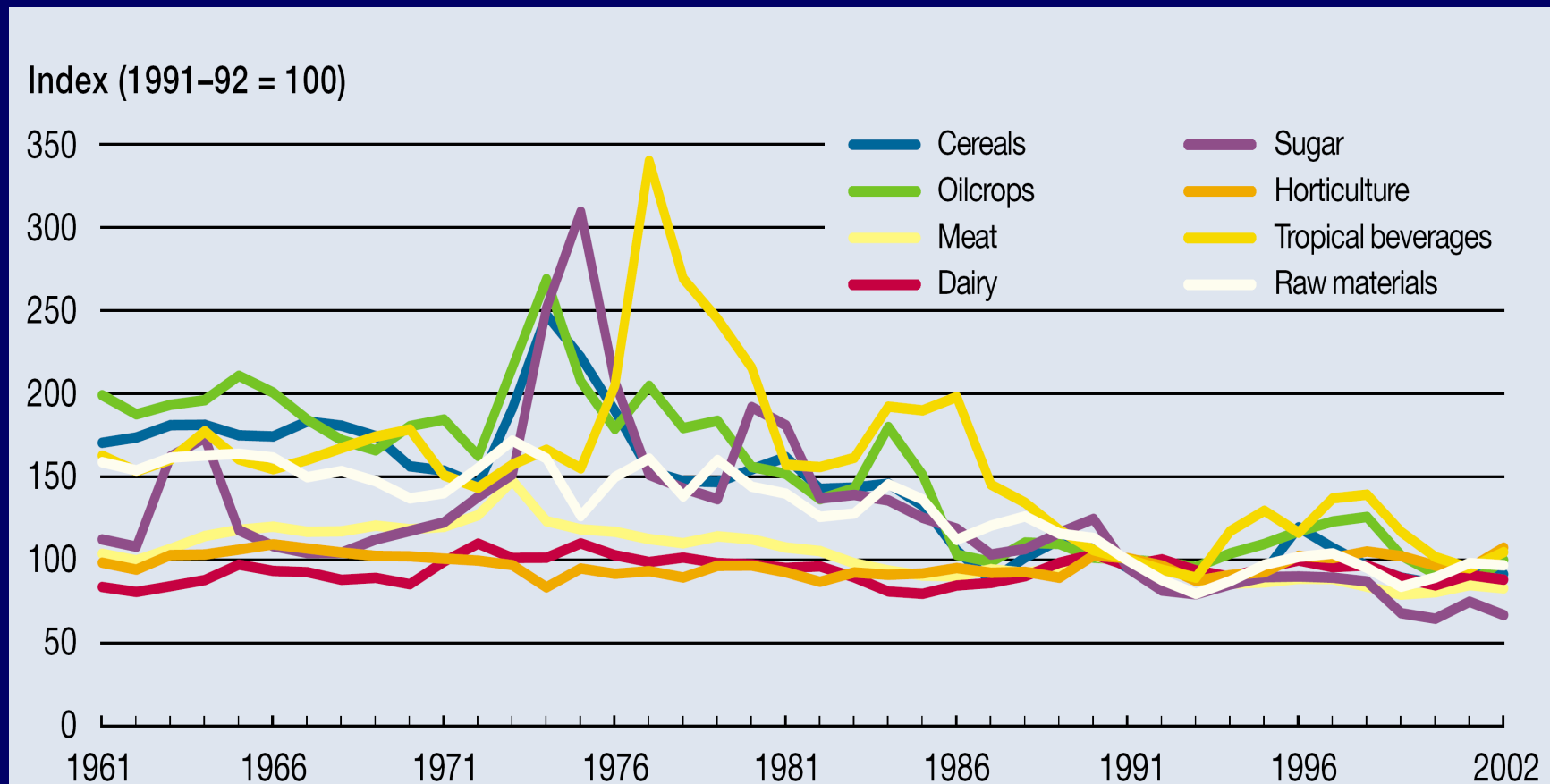


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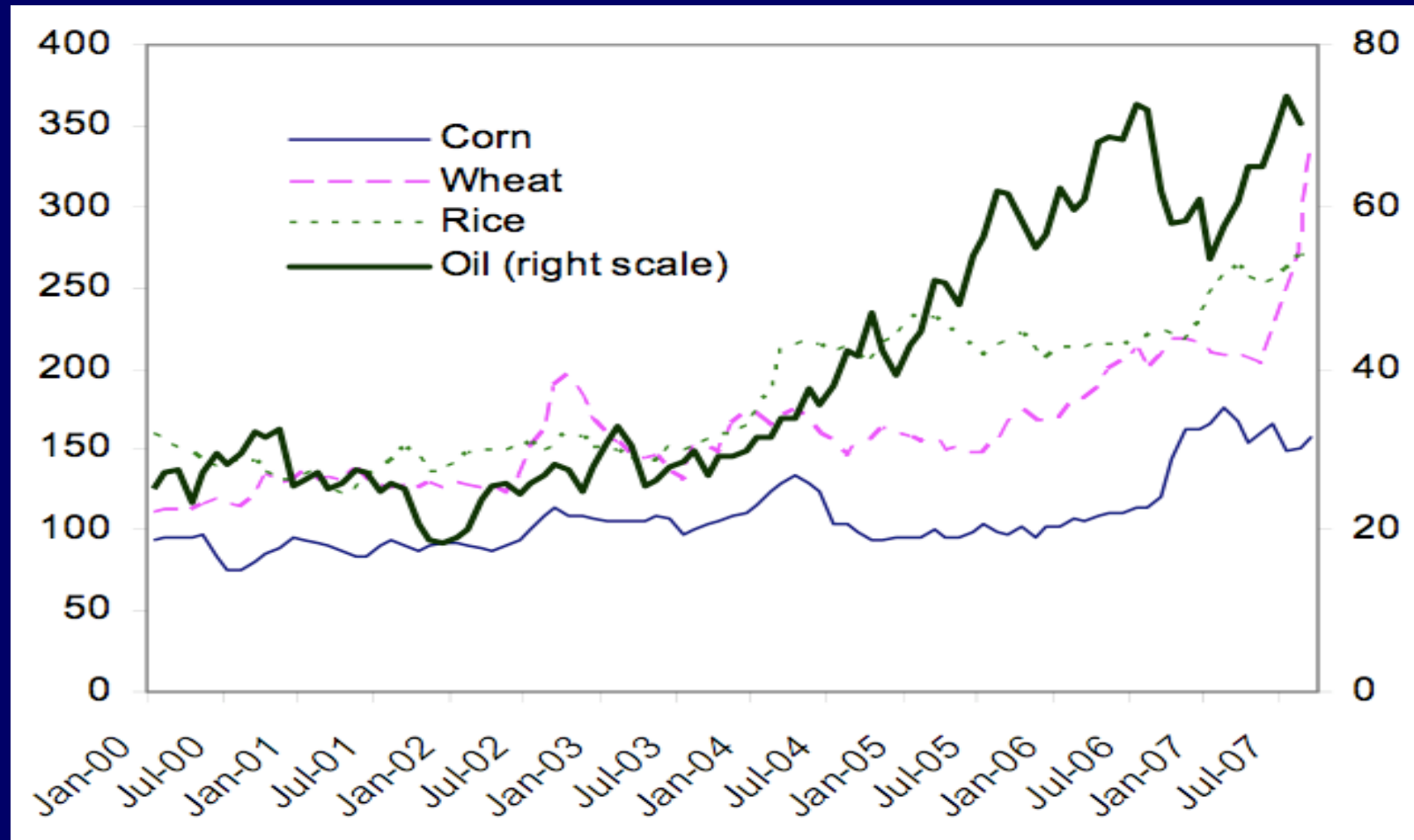
Trade can contribute to pro-poor growth only where complementary policies are implemented that enable the poor to take advantage of trade related opportunities

# Long run commodity prices have been declining – will this trend continue?

## Real prices for commodity group

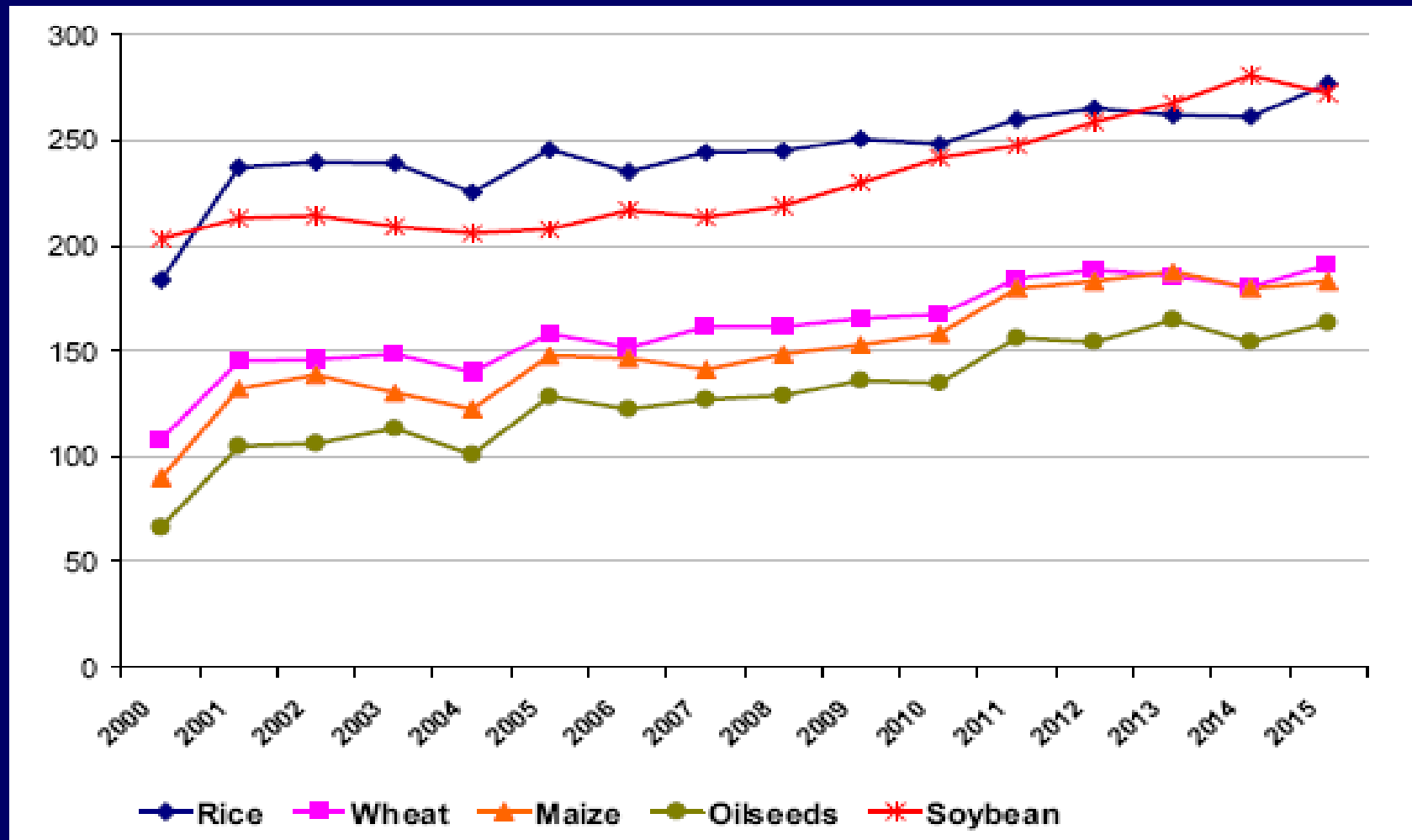


# Increasing link between energy and food prices



# Real prices are expected to remain high or even increase in the future (IFPRI/IMPACT Model)

(IFPRI/IMPACT Model)





## Energy and Food Prices – are they related?



- As energy prices rise, costs of agricultural inputs increase, putting pressure on agricultural prices
- Increased demand for commodities for biofuel production puts pressure on their price
- The link weakens as rising commodity prices make them too expensive as a source of fuel





# Climate Change and Food Security



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	1990	2020	2050	2080	2080/1990 ratio
Developing countries	885	772	579	554	0.6
Asia, Developing	659	390	123	73	0.1
Sub-Saharan Africa	138	273	359	410	3.0
Latin America	54	53	40	23	0.4
Middle East & North Africa	33	55	56	48	1.5

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Source: Von Braun 2007, adapted from Tubiello and Fischer 2007.



# Climate change and tropical communities

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- Negative impacts of higher temperatures in the tropics
- Higher incidence of extreme events
- Increased vulnerabilities and shift in vulnerabilities
- Traditional safety nets will not be adequate



# What are the implications of global change for rural communities?

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- Greater interdependence with the outside
- Enhanced access to real time information
- Importance of modern science and management over traditional know how
- Increased risk and vulnerability, shift in vulnerability
- Conflict over access to resources



# Managing sustainable development under transformational change

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- Change management needs to be community driven
- Make information access cheaper and easier
- Reduce market transactions costs
- Clear rights to land and resources
- Invest in effective early warning systems and safety nets
- Deal with those left behind