



# STRATEGIES FOR THE FUTURE RURAL WORLD

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# Some see rural areas as remote and disadvantaged, with:



- Unproductive soils
- Difficulty of providing services
- Ageing populations, economically inactive
- Younger people wanting to move to cities





# Others neglect the rural dimension in looking at global challenges

- Growing demands for food and water (for agriculture <u>and</u> modern life)
- Increasing population size (increasingly mobile)
- Greenhouse gas emissions (and adapting to changing climate)
- Deforestation and loss of biodiversity
- Aging populations generally, but especially in rural areas
- Energy supplies and security
- Political unrest

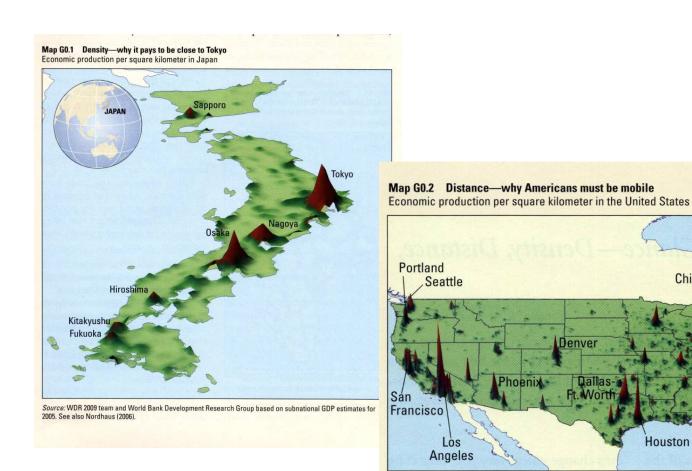


## A rural renaissance?





# ... or an urban dominated economy?



Source: WDR 2009 team and World Bank Development Research Group based on subnational GDP estimates for 2005. See also Nordhaus (2006).

Houston

Chicago

Washington, DC

**UNITED STATES** 

New

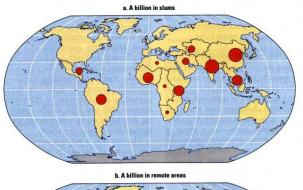
York

Boston

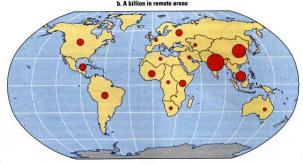


# Big development challenges

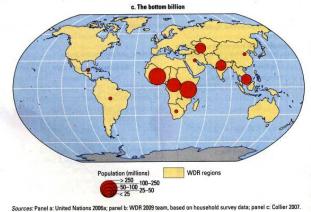




- a billion in slums



- a billion in remote areas



- the bottom billion



## Politics and economics





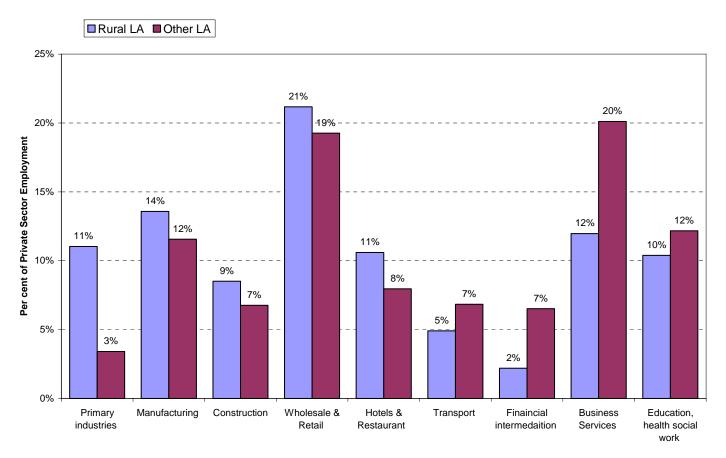






### Rural and Urban Business Activities in Scotland

#### Industrial structure, 2008





# Regional Plans as Instruments of Co-ordination

- Rural and urban areas should be partners in development
- Need for integrated development policy for well-defined regions
- Strategies for rural areas based on regional hubs
- Co-operation between rural and urban actors in governance, innovation and infrastructure



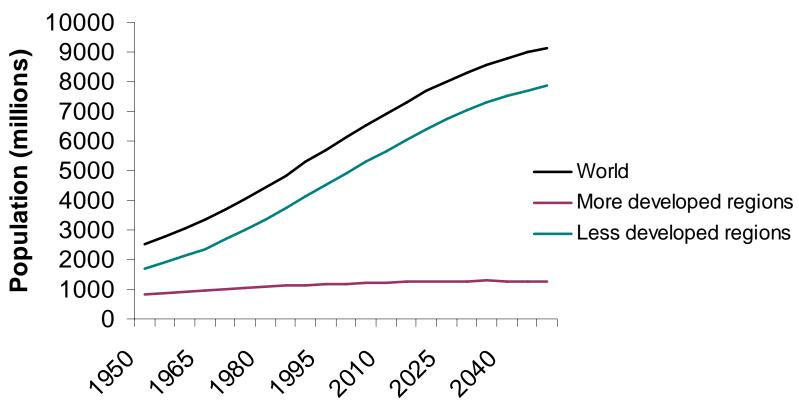
# Global factors to be addressed in strategies for (sustainable) regional (and rural) development

- Increasing population
- Food to eat and water to drink
- Greenhouse gas emissions
- Deforestation and loss of biodiversity
- Climate change
- Aging populations
- Energy supplies and security
- Political unrest



# Population growth

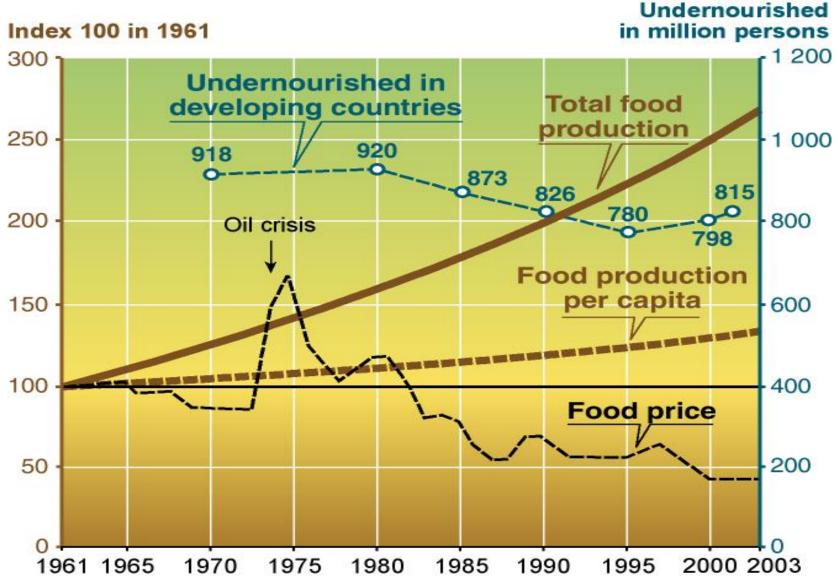
### World population (medium variant), 1950–2050



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, http://esa.un.org/unpp.



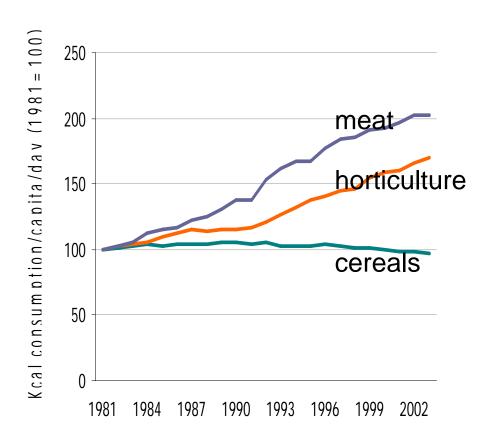
### Food to eat and water to drink

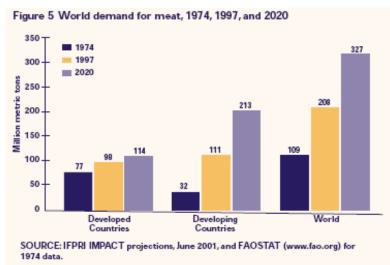


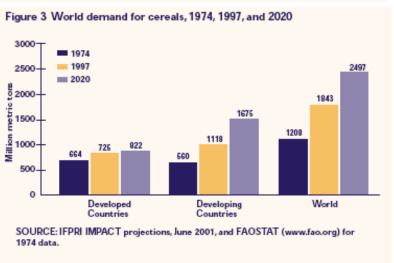
Sources: FAOSTATS, SOFI, Millennium Ecosystem Assessment



## **Food Demand**









## How will we respond to the demand?

- ➤ "The demand for food will double within the next 25-50 years, primarily in developing countries, <u>and</u> the type and nutritional quality of food demanded will change
- ➤ We need sustained growth in the agricultural sector (crops, livestock, fisheries, forests, biomass, and commodities):
  - > to feed the world
  - > to enhance rural livelihoods
  - ➤ to stimulate economic growth
- Food safety standards will become more important
- And production will need to be environmentally and socially sustainable"
- ...Professor Bob Watson, DEFRA, UK



## Sustainable farming & food should be the over-arching

policy framework for farming and food, identifying how governments can work with the whole of the food chain to secure a sustainable and viable future for farming and food industries, contributing to a better environment and healthy and prosperous communities, and taking account of the changing context in which farming and land management will be operating

#### **Economic Outcomes:**

A market focused farming sector, efficiently producing food and non food crops, enhancing farm incomes and competitiveness

Greater efficiency of the total food chain

Reduced burden on taxpayers and the rest of the economy

#### **Environmental Outcomes:**

Reduced environmental impact of the food chain

Reduced greenhouse gas emissions

Better use of natural resources (e.g., water)

Improved landscape and biodiversity

#### **Social Outcomes:**

Better public health, in particular through improved nutrition and workplace health and safety

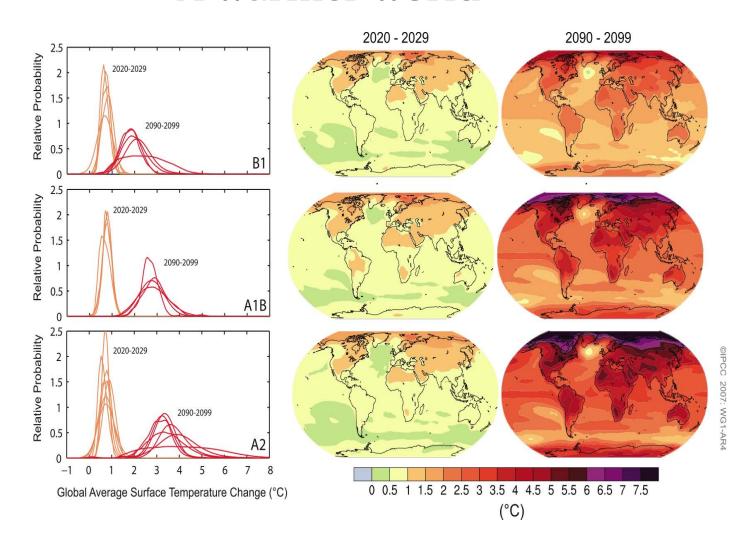
Higher animal welfare

More cohesive and productive rural communities

More equitable distribution of affordable, nutritious food

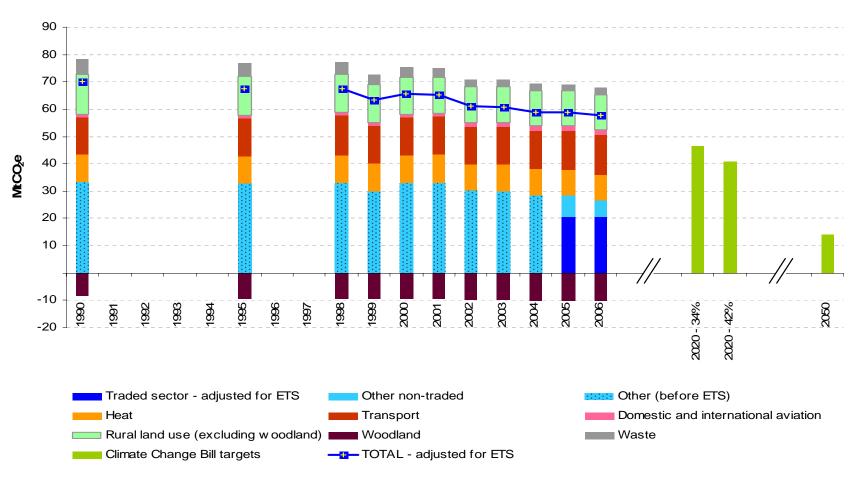


### A warmer world





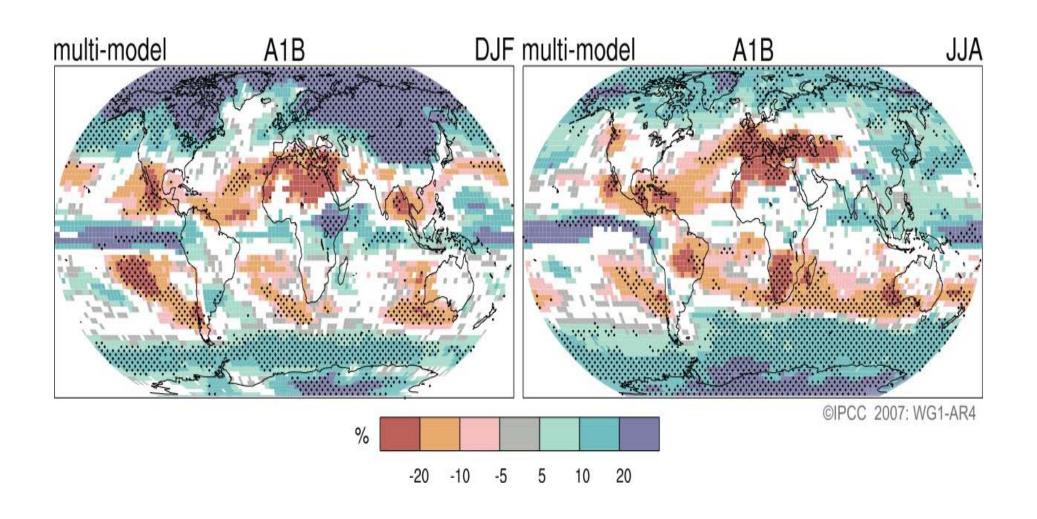
# Mitigating Climate Change



Scotland's Greenhouse Gas Emissions: 1990, 2006, and 2020 and 2050 Targets



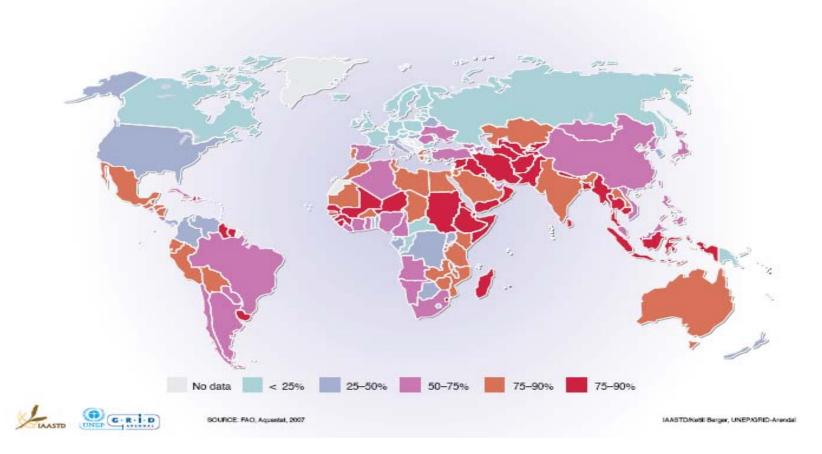
## A wetter or drier world?





# Water dependence

#### Proportion of water withdrawal for agriculture, 2001





## **Water Demand**

- 2,000 to 5,000 litres of water required to produce enough food for 1 person/day
  - Agriculture accounts for 70 percent of global water use

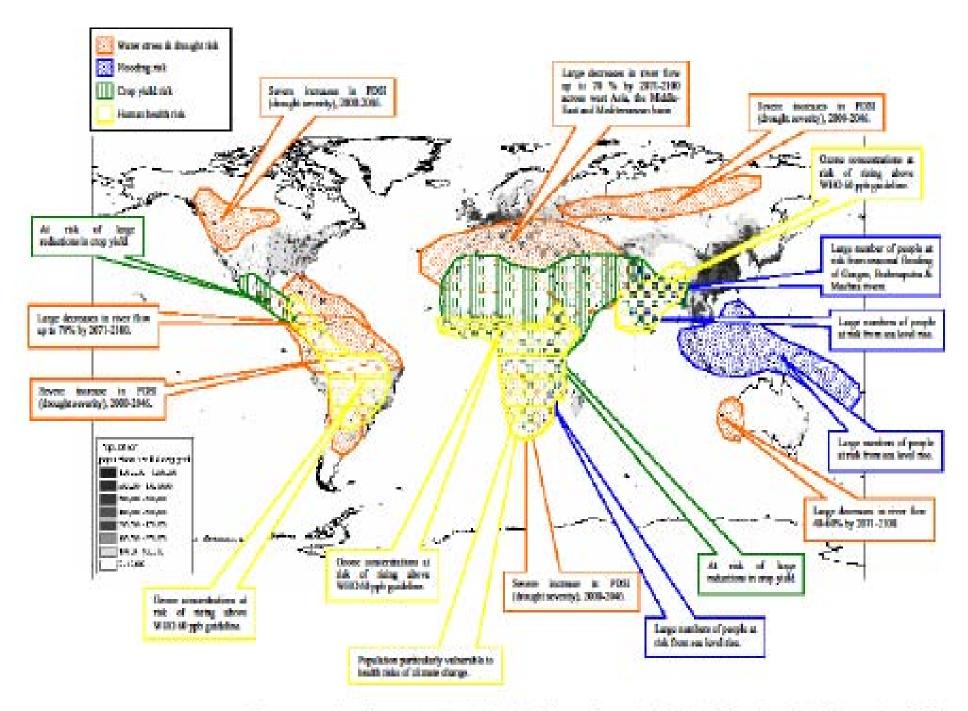






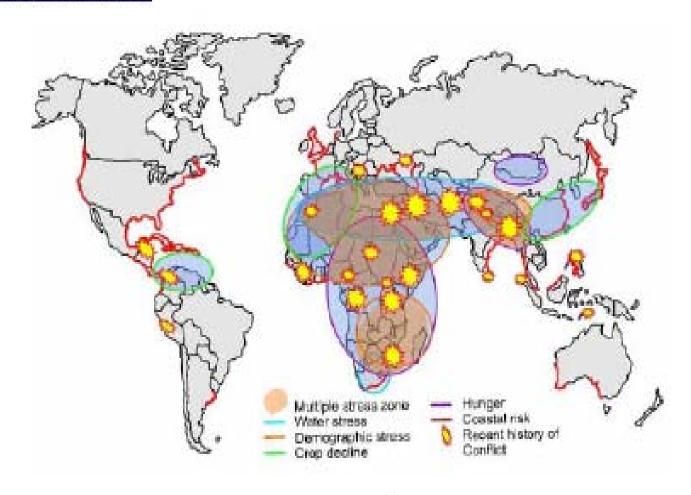






Source: Hadley Centre Met Office. from MOD, Strategic Trends 200.

### Multiple Stress Zones



Instability is likely to be greatest in areas of Multiple Environmental Stress

Source: MOD, Strategic Trends 2007





#### Top Stories

#### Food riots erupt near Bangladesh capital, army called in

Dhake (PTI): Thousands of testile warkers protesting against scening food prices on Saturday classical with the police and went on a rampage attacking vehicles and stops, prompting authorities to call in the military is the outskirts of the Gangladash capital.







# Global Imperatives; regional strategies; rural opportunities?

- Food to eat and water to drink
- Increasing population, new skills
- Aging populations, people with more time
- Renewable energy supplies; energy security
- Ecosystems services expanding forests and capitalising on biodiversity
- Climate change adaptation, slowing the pace of flood flows through cities
- VALUE ON RURAL PRODUCTS! HOW?



## Conclusions on a single page!

- Global food security is achievable, by moving away from business-as-usual policies, practices and technologies
- Global agricultural production needs to grow 70% in the next 25-50 years to alleviate hunger and poverty; needs investments in better practice, disease control, irrigation and transport infrastructure
- Climate change, population growth and energy security offer opportunities to the rural sector as well as challenges
- Food, forestry, water, renewable energy and biodiversity are essentials of life for city dwellers; rural communities should benefit from providing them
- Vibrant communities will encourage younger people to stay, innovate and diversify, rather than migrate; that will give more confidence in supply of rural goods in the future
- Those communities do require investment in rural services and infrastructure to make whole regions work well (roads, education, IT)
- Science and technology will be critical the risks and benefits of all technologies must be evaluated, and consumers' need sound information for responsible purchases
- Governments of all kinds should put in place sustainable regional strategies and planning - based on natural resource productivity – reflecting global drivers and in turn requiring enlightened agreements on climate change, trade rules/tariffs and regional empowerment

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