



Centre for Rural Policy Research

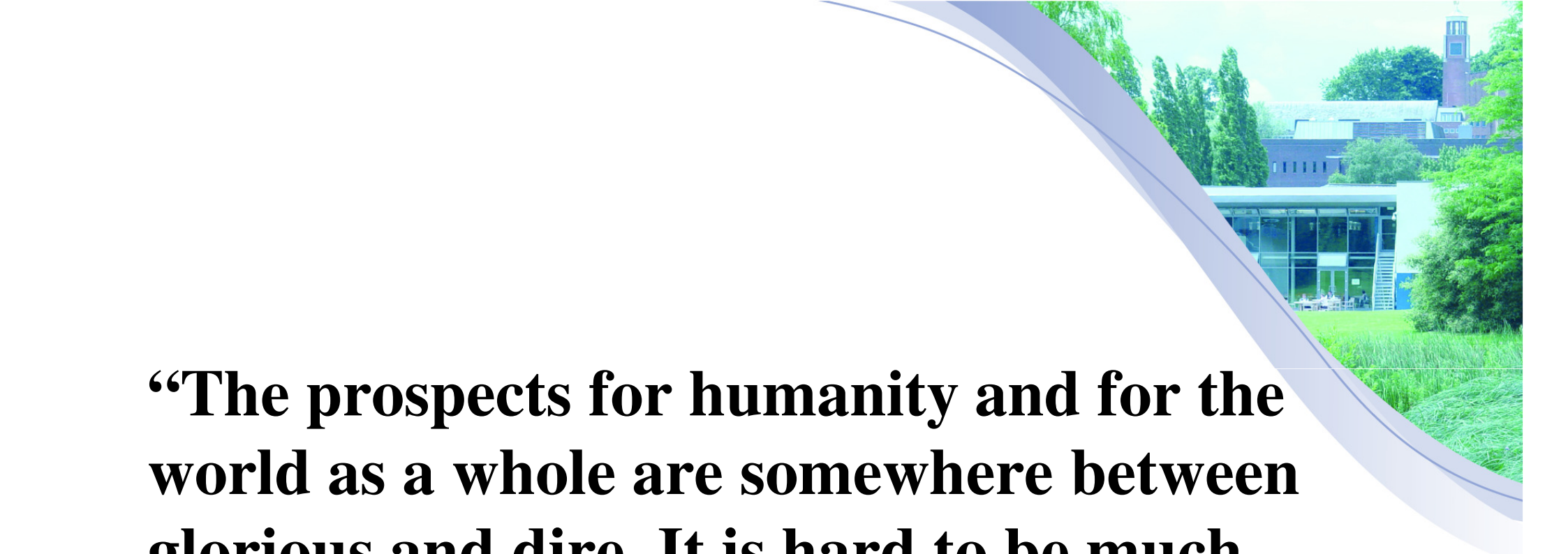
# Farming and Land Use Futures

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A photograph of a modern university building with large glass windows and a brick tower in the background, surrounded by greenery. The image is partially obscured by a large, light blue, curved graphic element that frames the text.

**“The prospects for humanity and for the world as a whole are somewhere between glorious and dire. It is hard to be much more precise” (Colin Tudge, 2004)**

# Context



- Land & land use key link between human activity and the environment
- Use of land one of principal drivers of global environmental change
- Environmental change will increasingly impact on land use decisions
- Farmers are the largest group of resource managers on the planet
- ‘Perfect storm’ of increasing demand for food, energy & water at same time as adapting to and mitigating climate change

# Population change

- Population *projected* to grow from 6 to 9 billion by 2050.
- Population *distribution*: 150-200m displaced people by 2050? UK population of 100m?
- Changing patterns of demand. Meat consumption may increase from 37kg /person/year in 2000 to 52kg /person/year in 2050
- Expansion of farmed area?
- Intensification of production?



# Energy security

- Energy inefficiency of contemporary agriculture
  - 6 calories of energy to produce 1 calorie of food energy
  - 1514 litres of oil per year to feed 1 person
  - Search for efficiency gains & alternatives
  - Min till, low input systems?
- Food versus fuel debate
  - Biomass rather than biofuels?
  - Implications for land use and landscape

# Water security

- Globally, freshwater per person forecast to have declined by 43% in 2025 compared to late 1980s
- EA defines SW as having ‘moderate’ water stress
- During summer months no additional water available in much of region
- Agriculture significant consumer of water
- Estimated 700L of water embedded in 1L of milk & 15,000L in 1kg of beef

# Policy change – CAP reform



- Public good arguments for supporting agriculture remain strong
- Phasing out of direct payments, particularly post 2020?
- Many farmers, particularly in SW, vulnerable to loss of CAP funds
- Food security

# Food security

- A key concern of emerging UK food policy. May challenge prevailing wisdoms about meaning of sustainable rural land use
- Self-sufficiency or access to safe, nutritious food via trade?
- End of period of food & land ‘surpluses’. New era of volatile food commodity prices?
- The return of productivism?



# So what?

- Pressures to use land to produce more food & to produce it differently.
- Current system of transforming oil into food is untenable and unsustainable.
- Need agricultural land use that is fit for purpose
- Much land currently not used directly to produce food for human consumption but grows feed for livestock.

# So what?



- Narrow definitions of food security may challenge the multifunctional/public goods model of the countryside.
- The agri-environmental consensus in danger of fracturing - agricultural productivism is back.
- Need for ‘smart production’

# Implications

- Broader concept of food security. Producing more food in ways that: contribute to broader public health agendas: safe & nutritious food; active lifestyles; minimise environmental impacts of farming; reducing fossil fuel dependencies and ensuring a fair price for both producers and consumers
- Need to bring science into heart of policy considerations & strengthen agricultural/land management research base
- Develop national extension service and facilitate knowledge networks

# Implications

- CAP: Need strong advocacy for continued support in longer term.
- Revise Single Farm Payment to support carbon sensitive & environmentally sensitive farming
- Incentives and capital payments – more effective use of rural development payments
- Connect people, food & place. Support for locally embedded producers, linked to consumers via short supply chains



# Implications

- Harness the power (& budgets) of supermarkets
- National *Carbon Sensitive Farming and Land Management Scheme*
- Recognise importance of farming & land management systems rather than proxies such as farm size
- Property rights & ‘freedom to farm’ – should some land use change be permanent?



**Thanks for listening**