



# FOOD SECURITY

Developing a UK roadmap for research

**Professor Douglas Kell**

Chief Executive, BBSRC



**BBSRC** Food  
Security

# Workshop Objectives

## Aim

- Establish what future research is needed to ensure the supply of sufficient safe and nutritious food to a rapidly growing world population

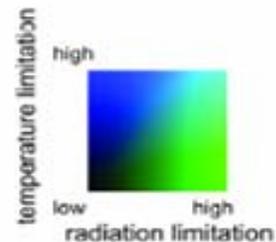
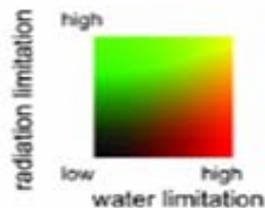
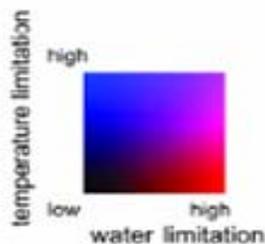
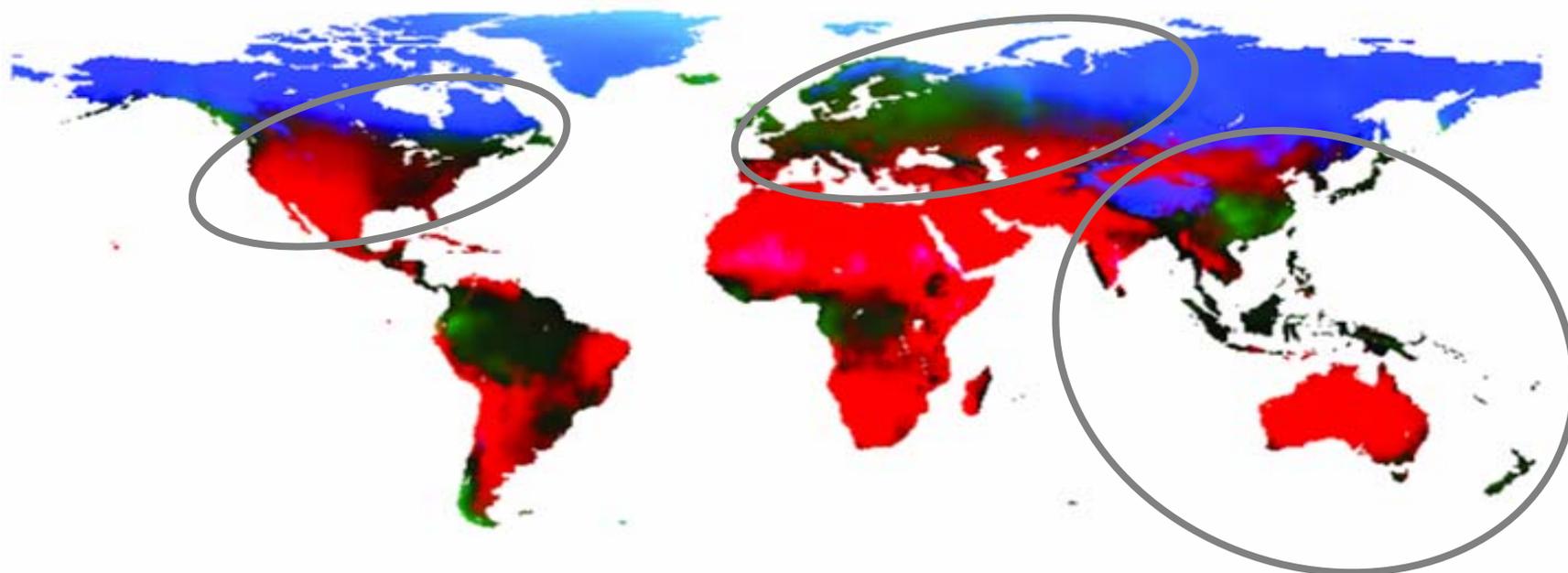
## Output

- A co-ordinated roadmap to set out the research needs, identify gaps in our ability to respond, and help understand where and why we need sustained investment in this area.
- The roadmap will establish:
  - where the UK aims to be in terms of food security in 2020, 2030 and 2050
  - what science is required to achieve this and how this science will be translated into effective solutions

# Workshop Format

- Keynote Presentation – Prof John Beddington
- Three Discussion Sessions
  - Food
  - Livestock and Fisheries
  - Crops
- Session Format
  - Short presentation
  - Discussion at tables
  - Feedback from each table to all

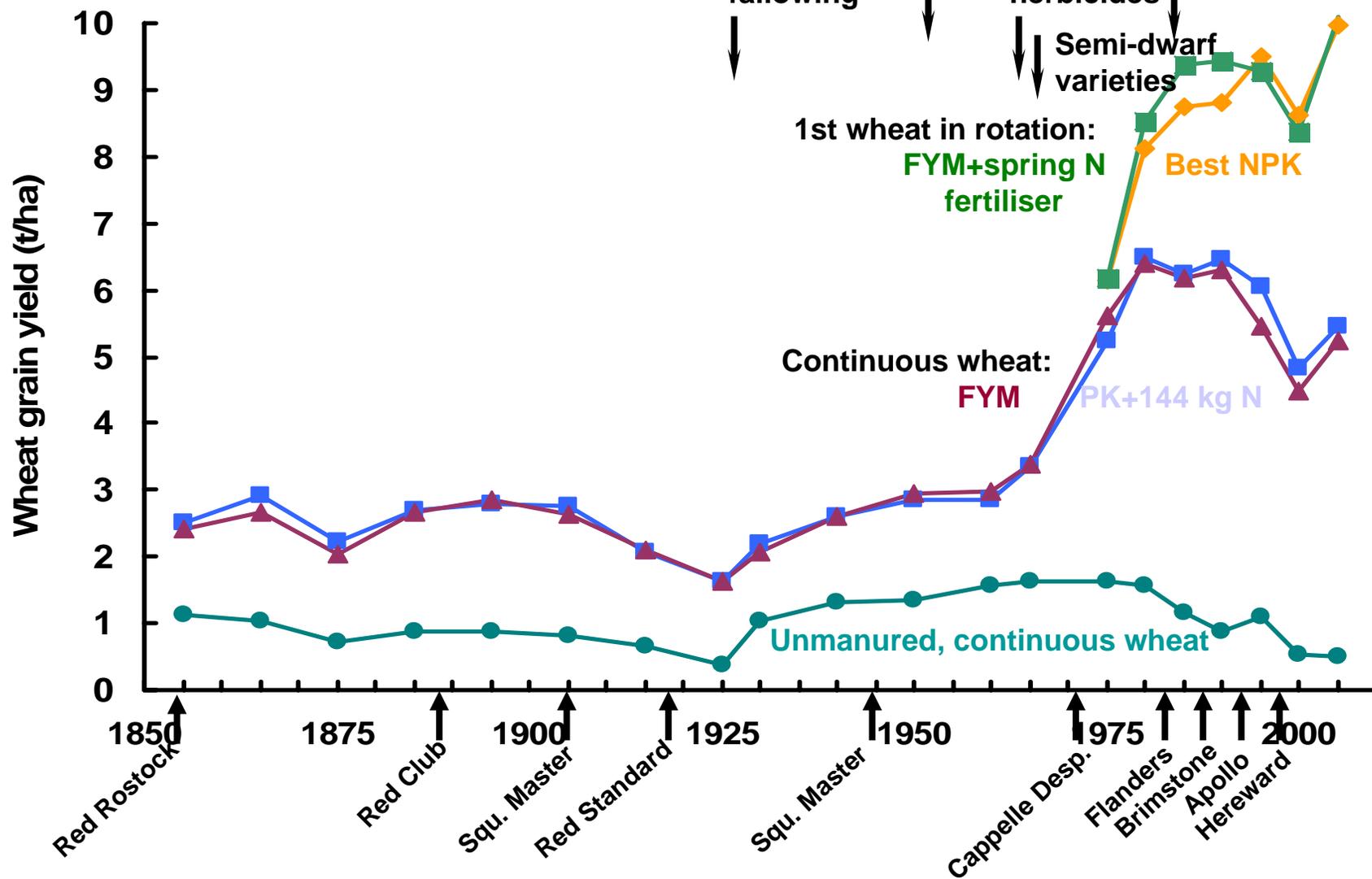
# Global Food Security



# Broadbalk yields, varieties and major changes

Courtesy of Ian Crute

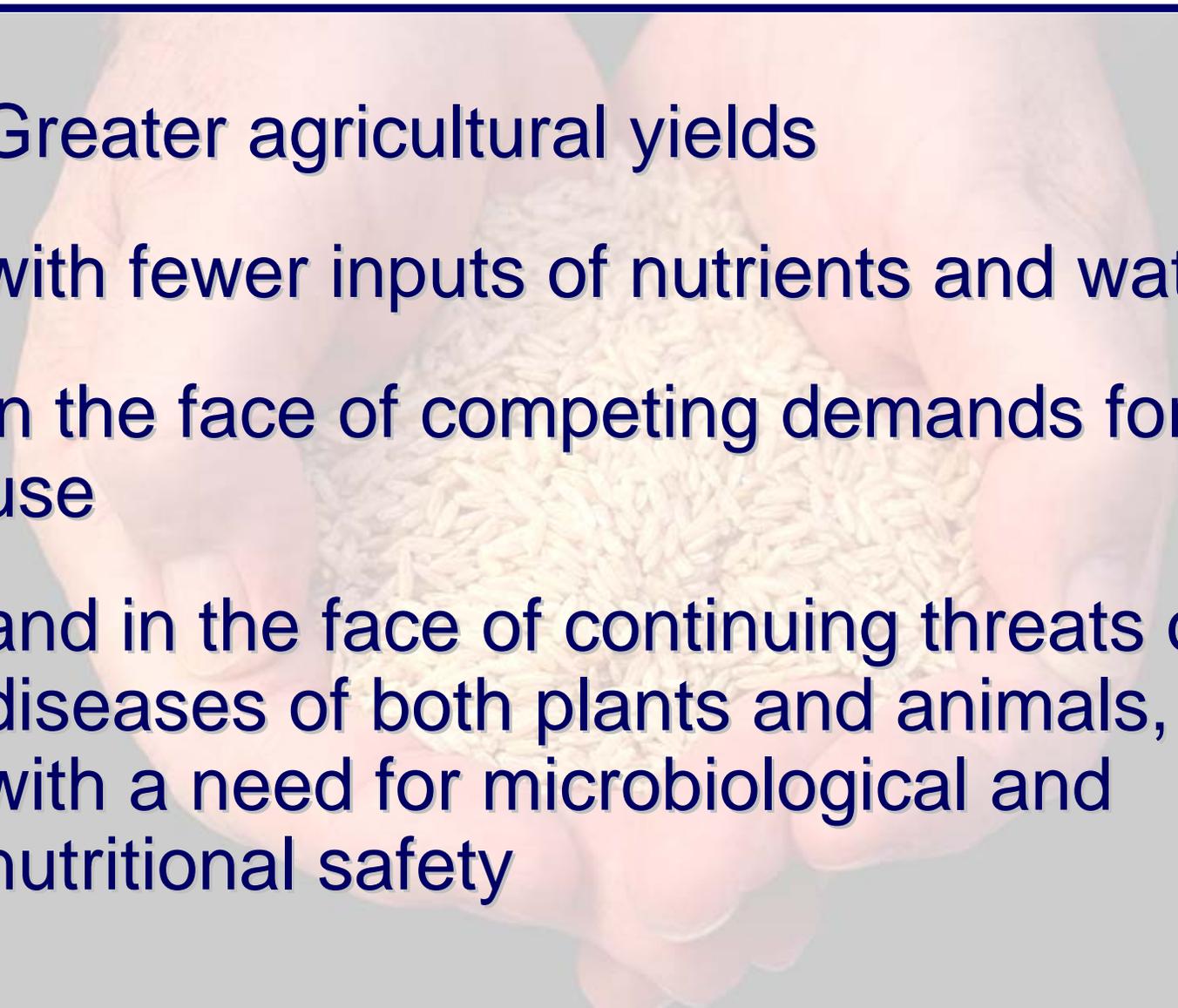
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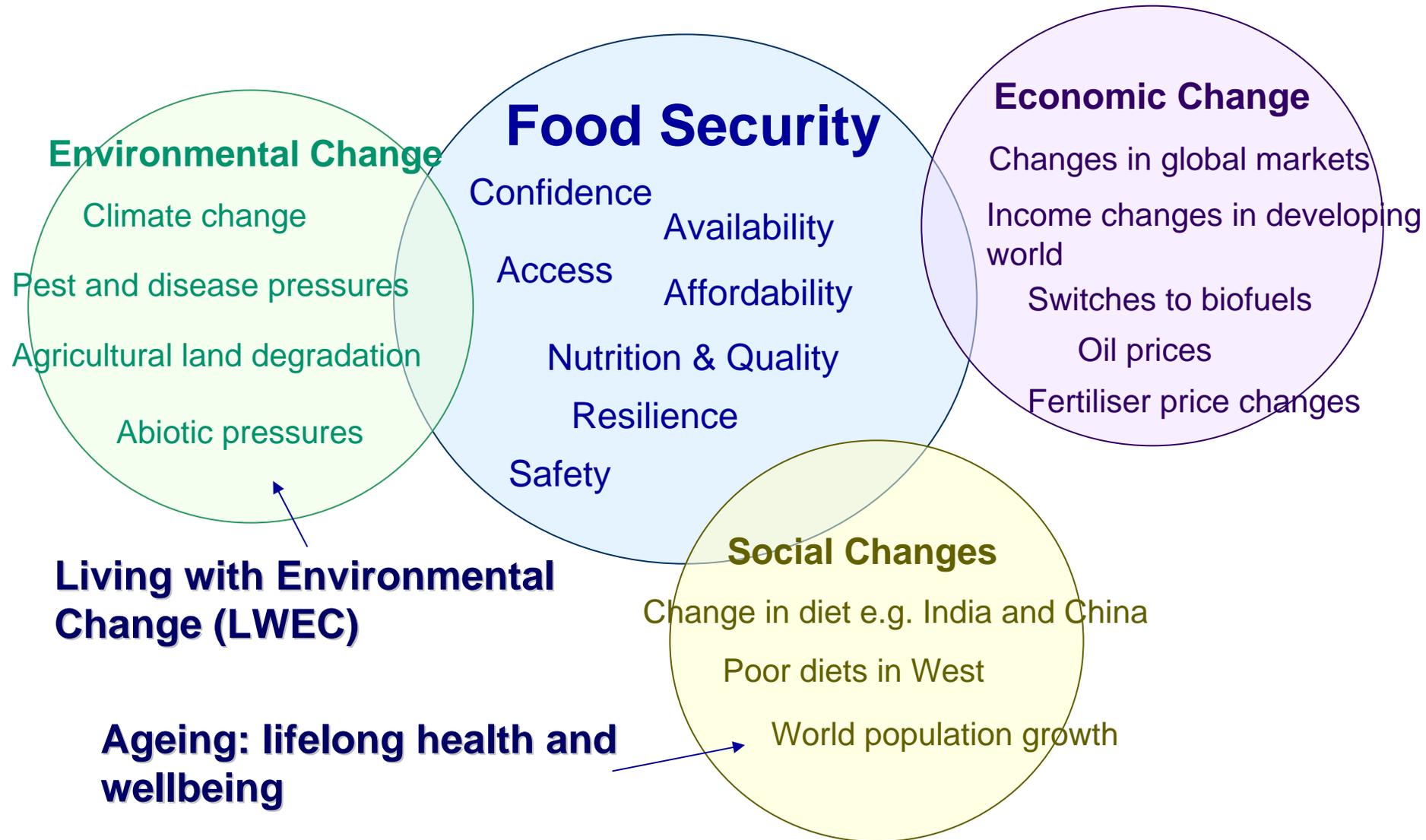
# Some UK Agriculture/Food stats

- > 500,000 people actively farming
- ~7% of UK economy in terms of GVA
- ~ £10 Billion in exports (though net importer)
- ~ 60% of UK needs
- ~75% of UK land area
- Prone to market failures e.g. FMD 2001 = £8B

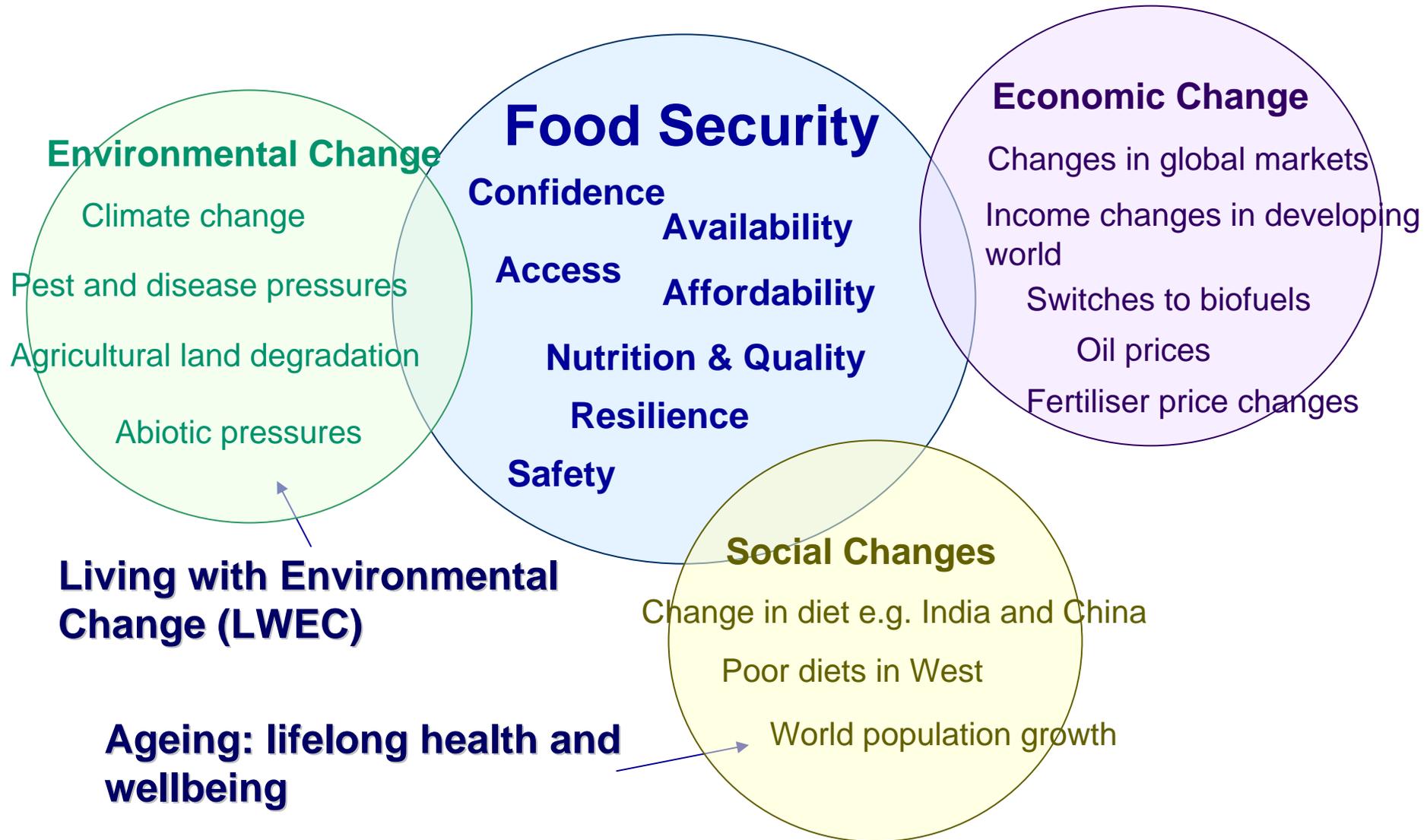
# Challenges

- 
- Greater agricultural yields
  - with fewer inputs of nutrients and water
  - in the face of competing demands for land use
  - and in the face of continuing threats of diseases of both plants and animals, and with a need for microbiological and nutritional safety

# Food Security



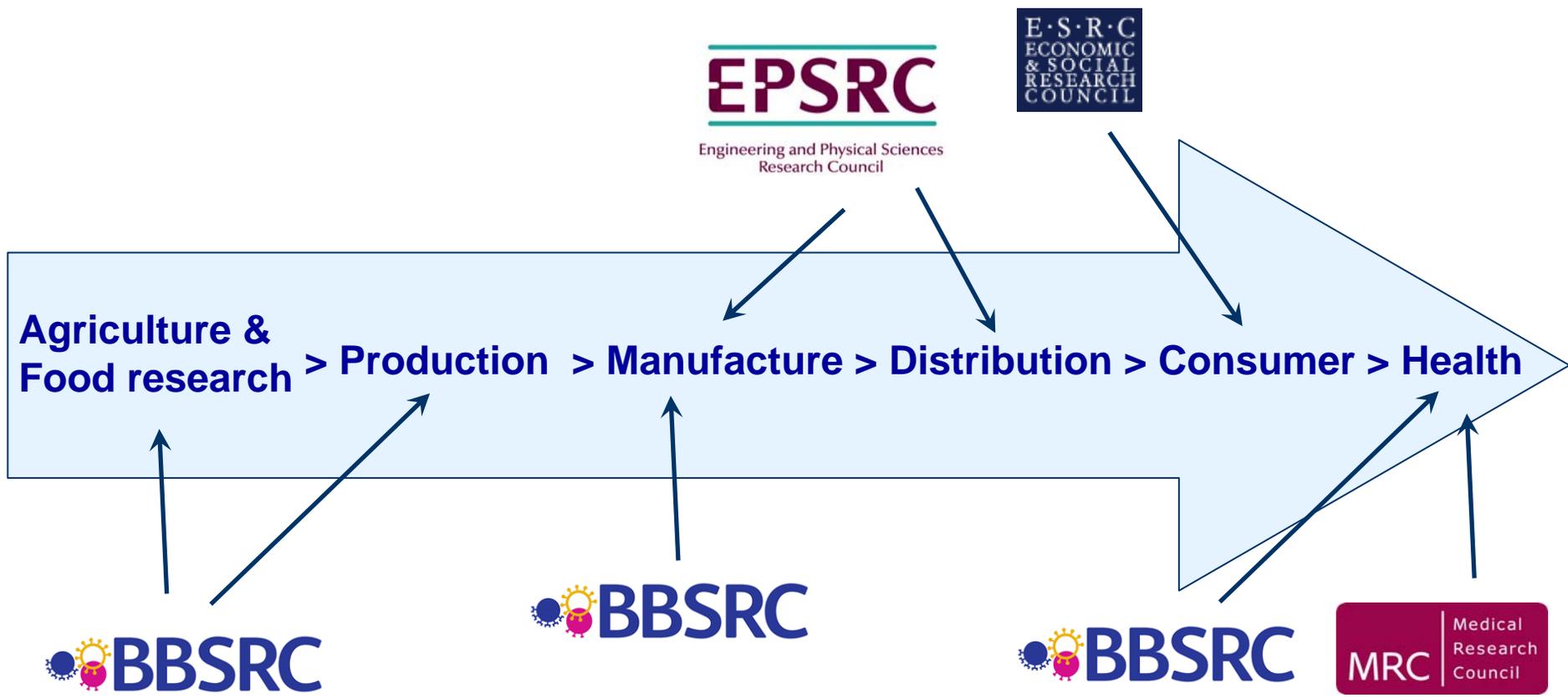
# Food Security



# Current BBSRC Activities

- SARID – Sustainable Agriculture Research for International Development (in association with DfID)
- CIDLID – Combating Infectious Diseases of Livestock for International Development (in association with DfID)
- CEDFAS – Combating Endemic Diseases for Farmed Animals for Sustainability
- CIC – Crop Improvement Club
- DRINC – Diet and Health Research Industry Club
- LWEC – Objective C developing sustainable ecosystem management approaches for safe and secure food production and water supply.
- Annual Spend 07/08: £184.6M associated with Food Security

# Food Supply Chain



# Research and Development Translational Pipeline

Department for  
**Innovation,  
Universities &  
Skills**



Technology Strategy Board

**Basic  
Research**

**Strategic  
& Applied  
Research**

**Pre-commercial  
Research**

**Commercial  
R&D**

**Application**

 **BBSRC**

 **EPSRC**

Engineering and Physical Sciences  
Research Council

**E·S·R·C**  
ECONOMIC  
& SOCIAL  
RESEARCH  
COUNCIL

  
**defra**



**FOOD  
STANDARDS  
AGENCY**

**Agriculture and  
Horticulture  
Development  
Board**

 **MRC**

Medical  
Research  
Council

**DFID**

Department for  
International  
Development



**Department  
of Health**



**NATURAL  
ENVIRONMENT  
RESEARCH COUNCIL**

**Companies**

**Farming, Food  
and related  
industries**

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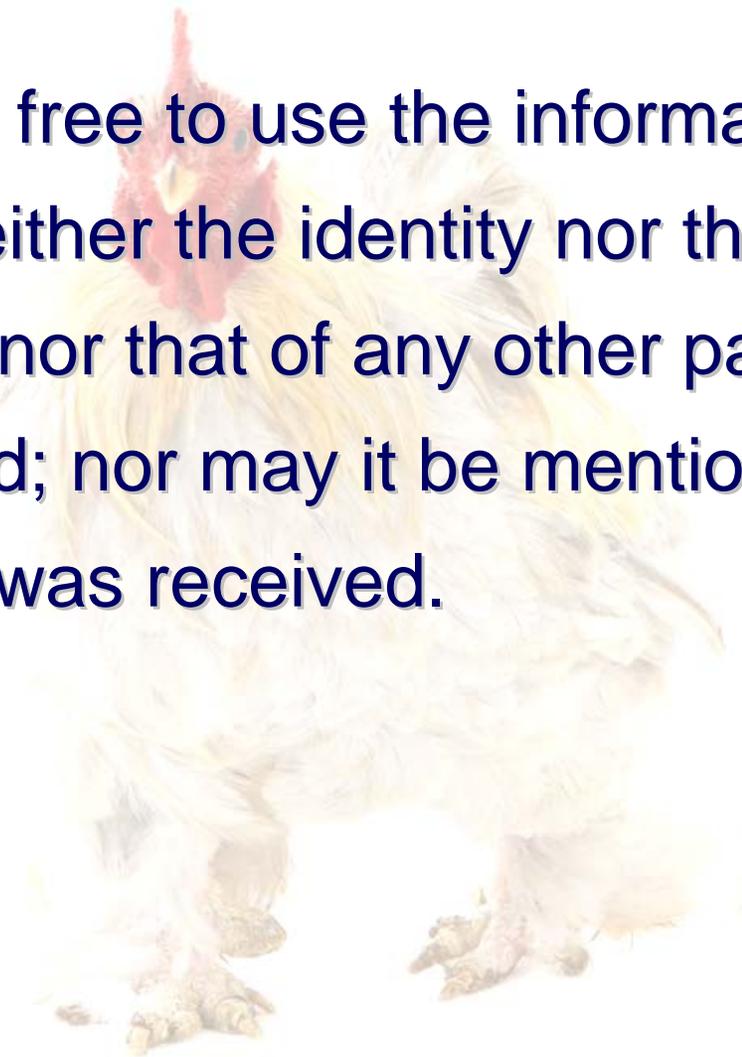
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# Chatham House Rule

Participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed; nor may it be mentioned where the information was received.





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