

Food and Farming Research

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Food & Farming Group

Strategy in Defra

Purpose

**To secure a healthy environment in which we
and
future generations can prosper**



Departmental Strategic Objectives (DSOs)

- A thriving farming and food sector
- A secure, sustainable, healthy food supply
- Healthy, resilient, productive and diverse natural environment
- Sustainable low carbon and resource efficient patterns of consumption and production
- Economy and society resilient to environmental risk
- Society adapting to the effects of climate change

Access for all, at all times, to sufficient, safe
and nutritious food, adequate for an active
lifestyle at affordable prices, and produced
sustainably'

Global availability

Global resource sustainability

UK availability and access

UK food chain resilience

Food security at household level; and

Safety and confidence in our food supply

rise in commodity prices (oil, cereals)

obesity

global population growth - demand for food

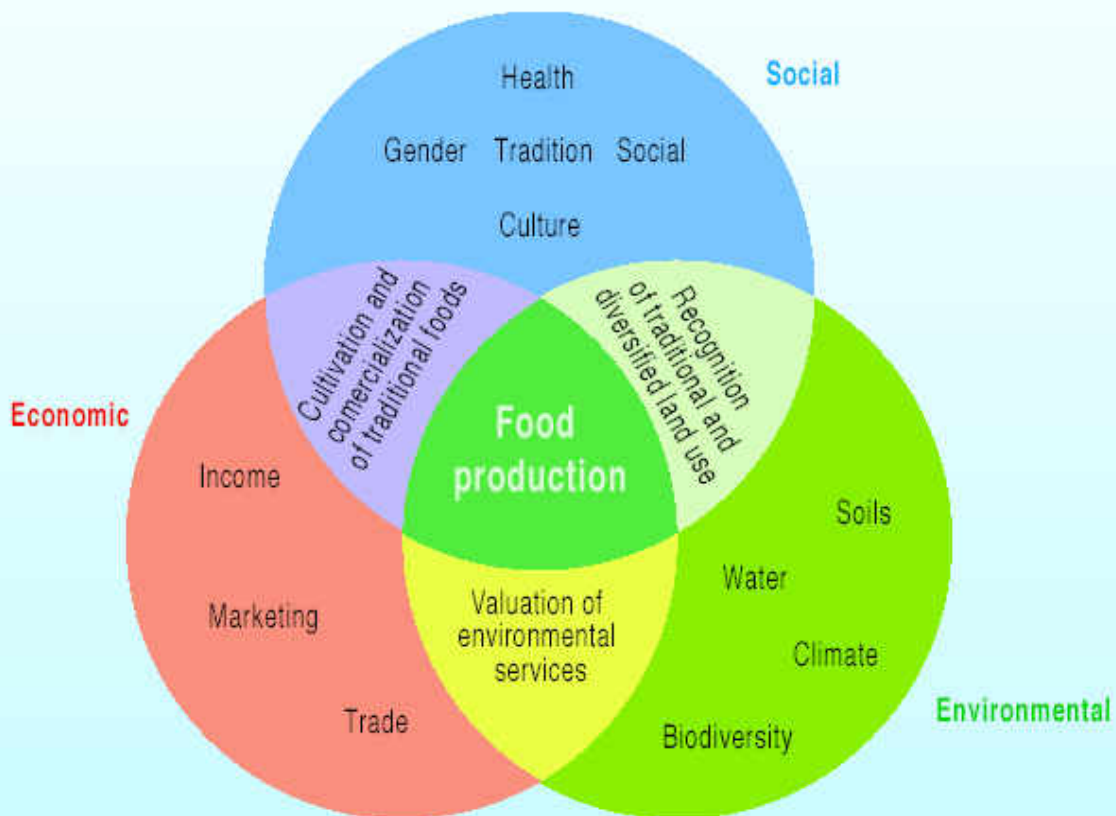
food production and productivity

land use – bio fuels

food and fuel security

The Multifunctionality of Agriculture

The inescapable interconnectedness of agriculture's different roles and functions



Greenhouse gas emissions

Agriculture =

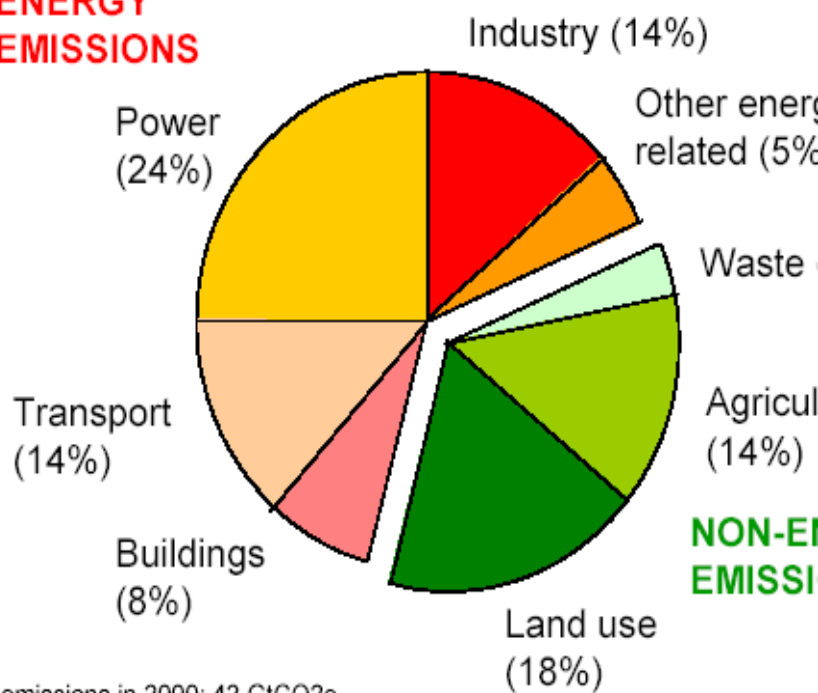
7% of UK greenhouse
gases (2004)

66% of UK total N₂O
emissions

36% of Methane (second
largest emitter behind
waste sector).

Only 1% of CO₂ emissions

ENERGY EMISSIONS



Total emissions in 2000: 42 GtCO₂e.

Energy emissions are mostly CO₂ (some non-CO₂ in industry and other energy related).
Non-energy emissions are CO₂ (land use) and non-CO₂ (agriculture and waste).

Source: Met Office

Why does Government invest in research?

To inform policy making

To inform regulation

To support policy

implementation

To measure progress



Policy cycle



Environmental impact of food production and consumption

ter et al., Manchester Business School

Produced to inform
Government policy.

Environmental Life Cycle
Assessments of a range of
food products:

- Fresh & processed; organic & conventional; local & global source.

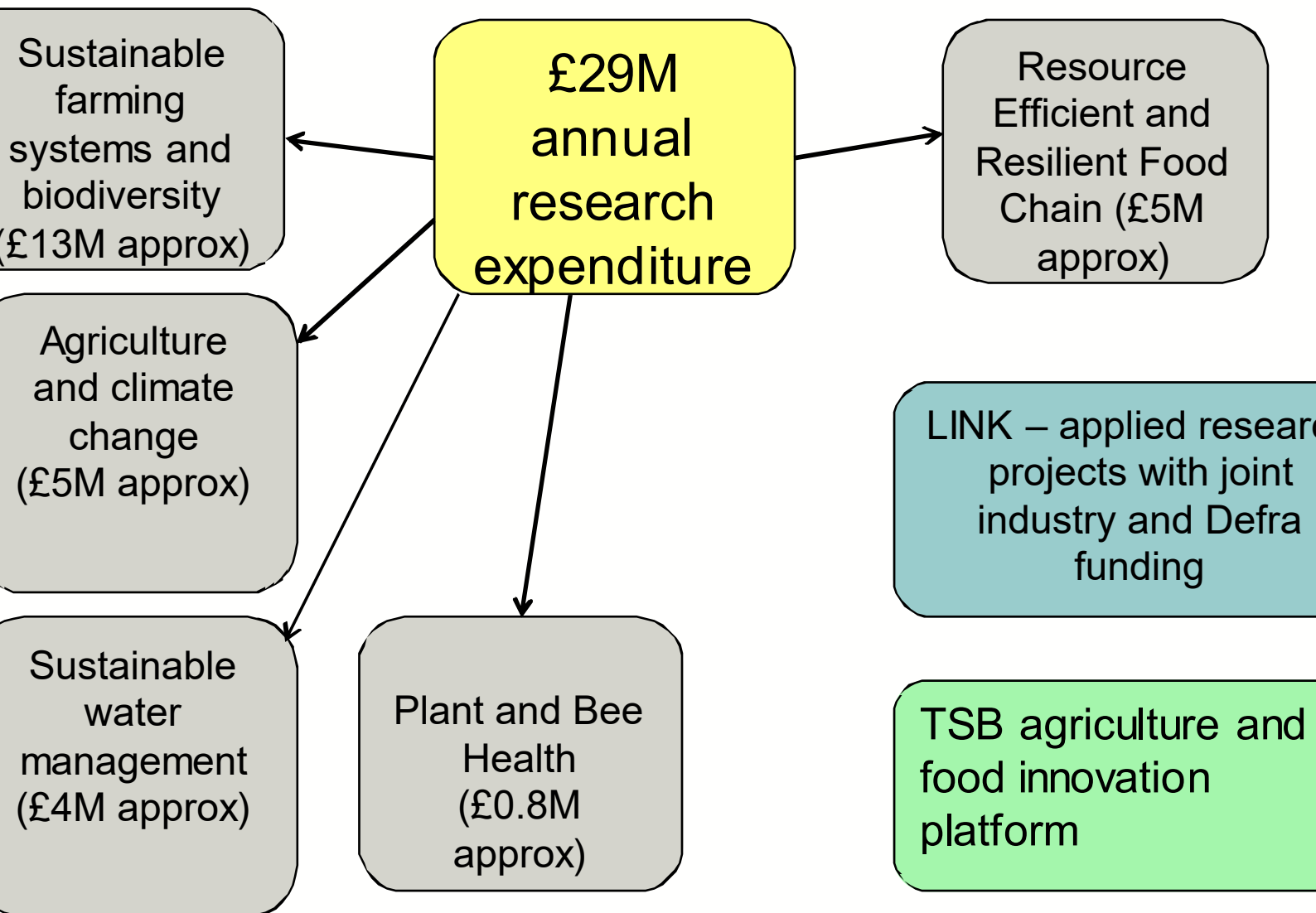
Environmental Impacts of Food Production and Consumption

A research report completed for
the Department for Environment,
Food and Rural Affairs by
Manchester Business School

December 2006



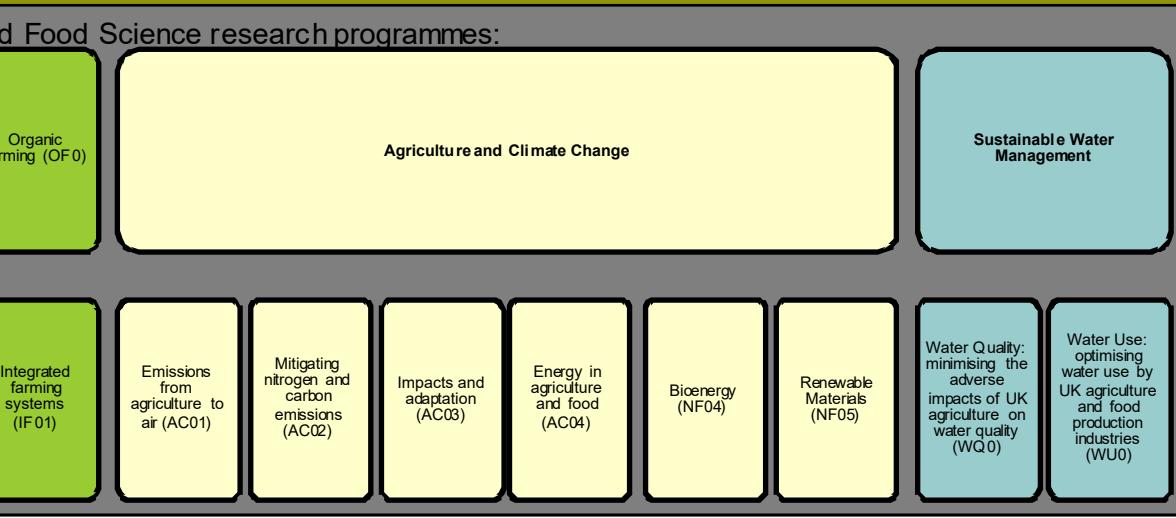
Food and Farming research programmes



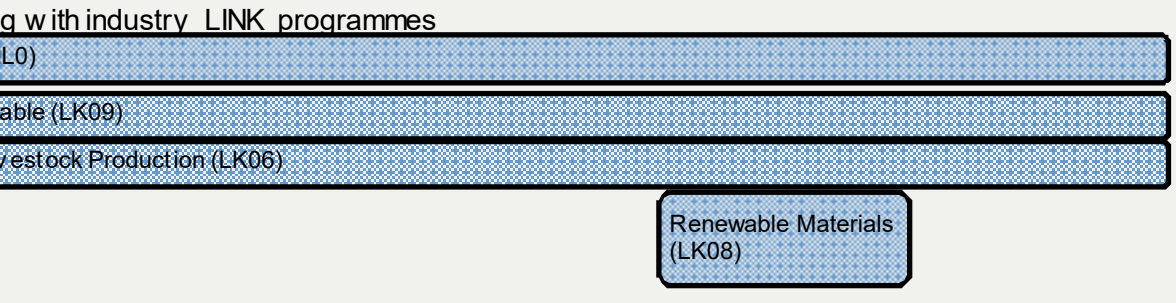
Programmes:

Farming for the Future

Food chain programme



Resource Efficient and Resilient Food Chain



Technology Strategy Board Innovation Platform

SB Agriculture and Food Innovation Platform

- **Crop productivity including protection and nutrition**
- **Sustainable livestock production**
- **Waste reduction and management**
- **GHG Reduction Technologies and Methodologies**

Evidence-based policy and research coordination

Food Matters Report

Foresight Farming and Futures study

Council of Food Policy Advisors

Food Research Partnership

Fruit and vegetable task force

