Systems maps
LAND USE FUTURES PROJECT
Land Use Futures: Making the most of land In the 21st century

Systems maps

This report is intended for:
Policy makers and a wide range of professionals and researchers whose interests relate to all aspects of land use. The report focuses on the UK, but will also be relevant to the interests of many other countries.

This report should be cited as:
The Government Office for Science would like to thank the firm ShiftN which led the systems work within the Foresight Project on Land Use Futures, and also the many experts and stakeholders from the UK who contributed to this work.

The Foresight Programme in the UK Government Office for Science is under the direction of the Chief Scientific Adviser to HM Government. Foresight strengthens strategic policy-making in Government by embedding a futures approach.
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1 Introduction

This catalogue provides the systems diagrams produced within the Foresight Project on Land Use Futures.

The aim of this Project has been to use the best available scientific and other evidence to take a broad look at:

- The most important challenges and opportunities for land use in the UK over the next 50 years – particularly those that merit decisive action.
- What can be done to use and manage land more sustainably and to unlock greater value for people and the economy – now and in the future.

The catalogue is not intended as a stand alone document, but rather should be used in conjunction with the Project Report, as a tool to aid interpretation of the report’s key themes and messages.

For greater detail on these diagrams, and the background behind them, a report has been produced by the firm ShiftN, who undertook the systems work for the Project. The contractual report expands on the systemic perspective taken in formulating these maps and provides detail behind several of the maps. ShiftN’s report can be ordered from the Foresight website: http://www.foresight.gov.uk/

2 Catalogue of diagrams

The following table lists the systems diagrams that are reproduced here, together with a brief description.

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Land System Framework – the component parts of the current UK land system

- **Global Ocean, Atmosphere & Climate System**
- **Biodiversity**
- **Hydrology**
- **Climate**
- **Soil**
- **Altitude**

**Land Cover & Characteristics**
- **Basic Land Resource**
  - Stocks
  - Quality
  - Spatial Distribution
  - Ecosystem Services
    - Regulating
      - Air quality regulation
      - Climate regulation
      - Water regulation
    - Provisioning
      - Food
      - Fiber
      - Raw materials
    - Supporting
      - Soil formation
      - Photosynthesis
      - Primary production
  - Cultural
    - Recreation and ecotourism
    - Social relations

**Space**
- Land for __________
- Policy & Functional Classifications

**Time**
- Scales
  - Natural
  - Cultural

**Location**
- Resilience
- Transport

**Science & Technology, Knowledge, Methods, Processes**

- **Ecosystem Services**
- **Land Use Change**
  - **Economic Growth**
    - **Employment**
    - **Income**
  - **Society & Culture**
    - **Wellbeing**
      - **Sustainability**

**Land-based goods & services**

**Basic Land Resource**

**Natural & Man-Made Environment**

- **Global Trade**
- **Global Ocean, Atmosphere & Climate System**
- **UK Natural & Man-Made Environment**
  - **Geology**
  - **Topography**
  - **Soil**
  - **Climate**
  - **Hydrology**
  - **Biodiversity**
- **Renewables:**
  - Wave/Tide
  - Hydro - Dams
  - Solar
  - Wind
  - Biofuel crops

**Energy**

- **Energy Policy & Regulation**
- **Science & Technology**
- **Funding**
- **Economic Value**
  - Income
  - Revenue

**Market Forces**

- **Supply & Demand**
- **Economic Growth**
  - **Employment**
  - **Income**
- **Wellbeing**
  - **Sustainability**
    - **Society & Culture**

**Governance**

- **Legislation**
- **Elected Officials**
- **Planning System**
  - **Local Planning Authority**
- **Valuation**
  - **Social Value**
  - **Economic Value**
- **Available Budget**
- **Trade Policy**
- **Taxes & Fees**
- **Subsidies & Credits**
- **Regulatory Policy**
  - **Housing**
  - **Employment**

**Society & Culture**

- **Population Size**
- **Demographics**
- **Environment**
  - **Protection**
    - **Water regulation**
    - **Climate regulation**
    - **Air quality regulation**

**Science & Technology, Knowledge, Methods, Processes**

- **Energy**
- **Economic Value**
  - **Supply & Demand**
  - **Employment**
  - **Income**

**Sustainability**

- **Society & Culture**
  - **Wellbeing**
  - **Sustainability**
    - **Society & Culture**
  - **Economy**
  - **Economic Growth**
    - **Employment**
    - **Income**

**Science & Technology, Knowledge, Methods, Processes**

- **Energy**
  - **Economic Value**
  - **Supply & Demand**
  - **Employment**
  - **Income**
This report has been produced as part of the UK Government’s Foresight Project, Land Use Futures. The views expressed do not represent the policy of any Government or organisation.
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Requests for hard copies may be made through this website.

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