



UNIVERSITY OF  
CAMBRIDGE  
Department of Land Economy

# Agri-environment schemes in England: past developments and future challenges

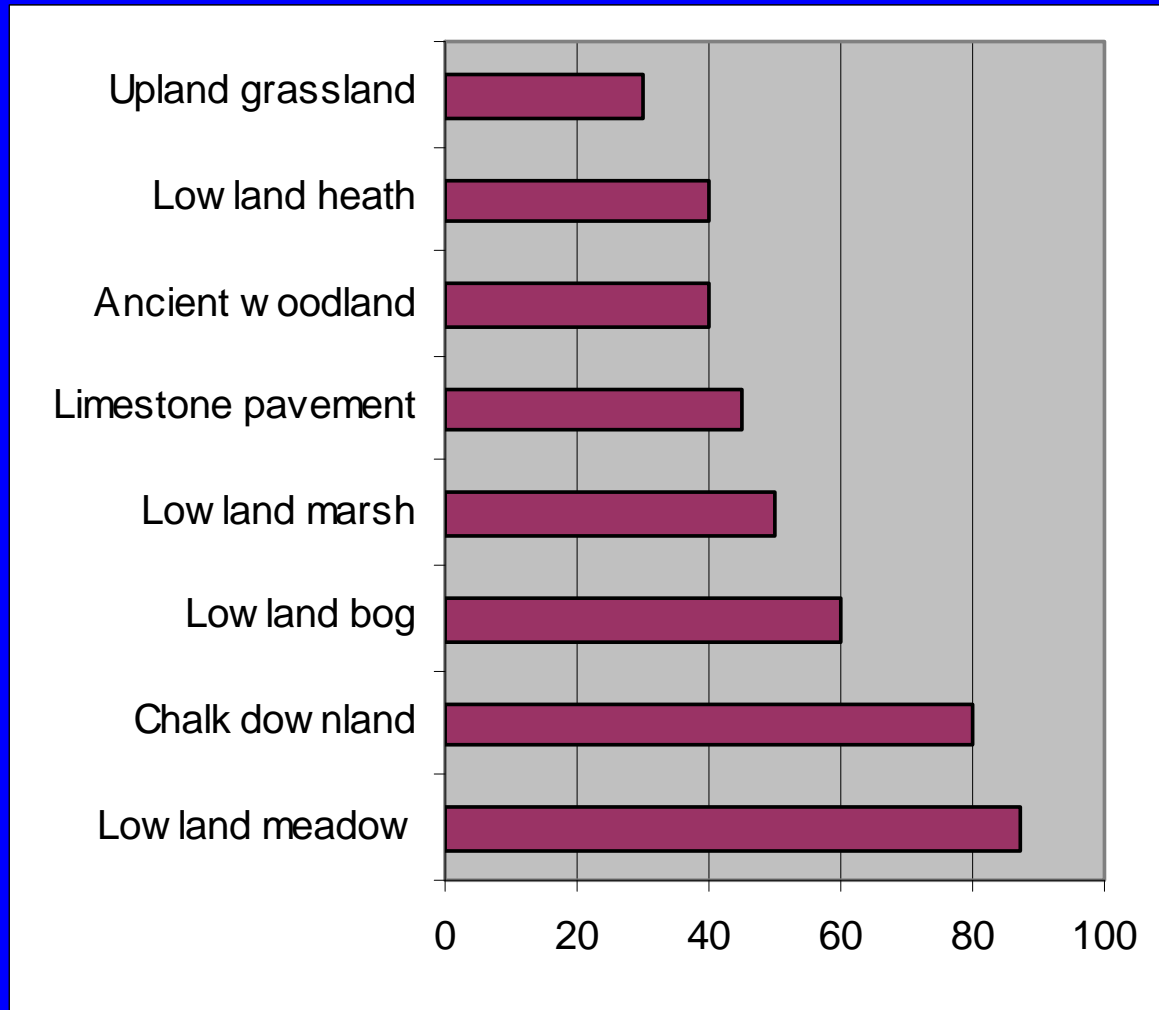
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University of Cambridge

agri benchmark Cash Crop Conference 2009  
9 June 2009

# Outline

1. Environmental concerns and the requirement for positive management
2. Initial agri-environment schemes:
  - Environmentally Sensitive Areas
  - Countryside Stewardship Scheme
3. Environmental Stewardship:
  - Entry Level Scheme
  - Higher Level Scheme
4. Further developments
  - Developing and rebalancing ELS
  - Compensation for set-aside
  - Further directions for policy
5. Limits of agri-environment schemes and beyond

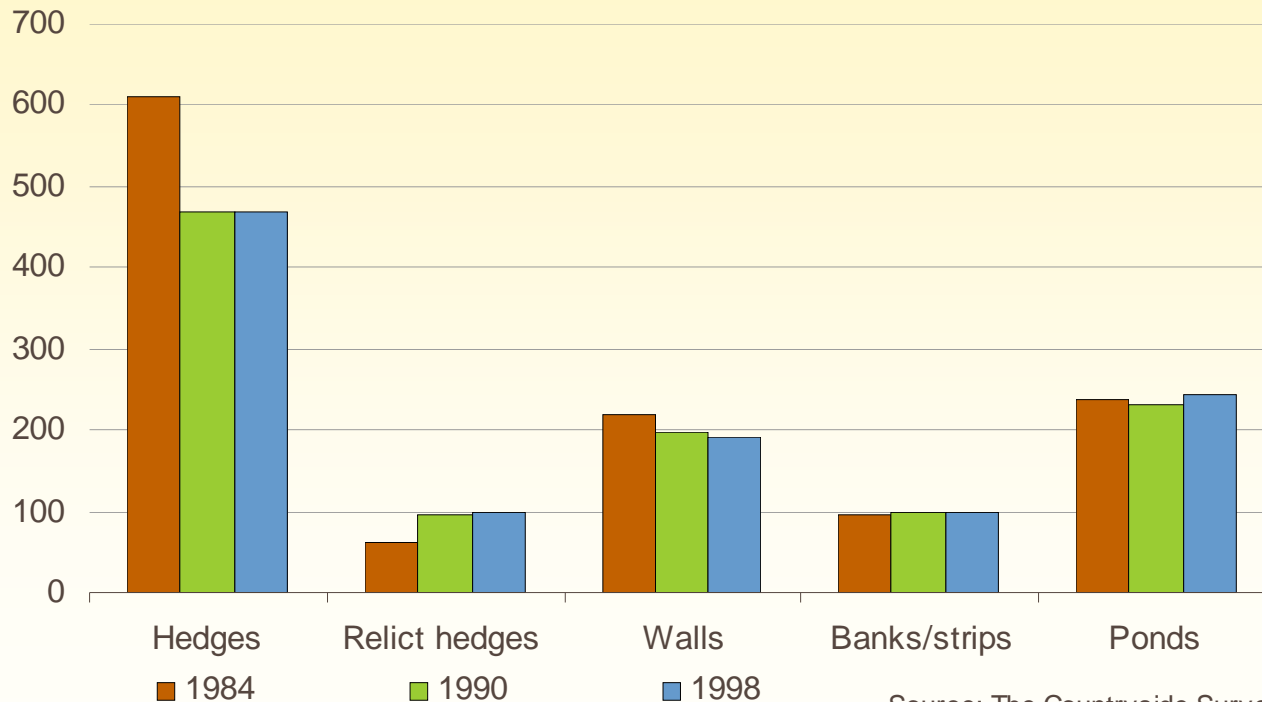
# Percentage loss of wildlife habitat England and Wales, 1945 - 1980s



# Landscape features

## DF1 Length of boundary features and number of ponds in England

Number of habitats



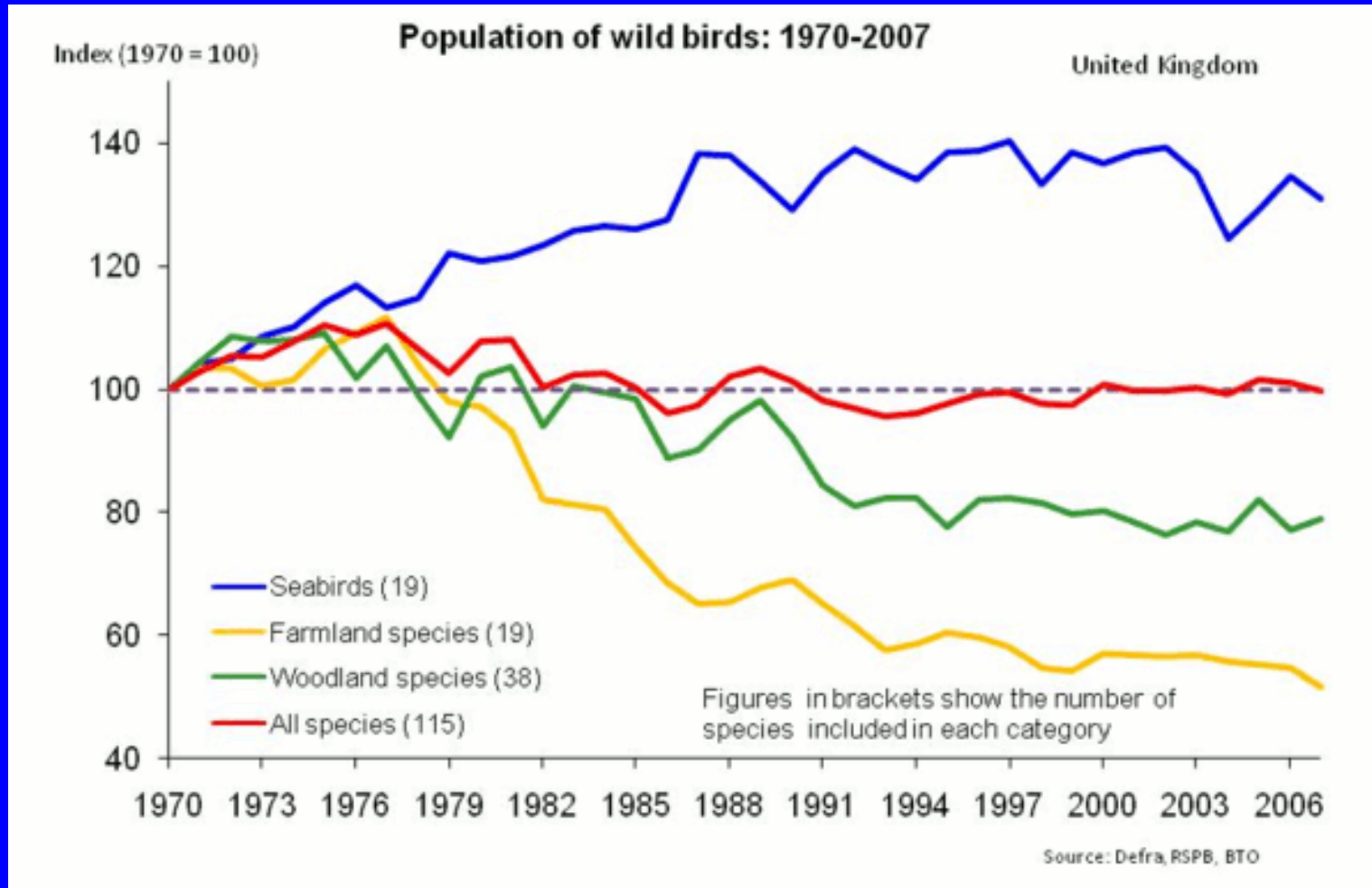
Source: The Countryside Survey

[https://statistics.defra.gov.uk/esg/ace/df1\\_data.htm](https://statistics.defra.gov.uk/esg/ace/df1_data.htm)



Stone Wall in restoration, Cotswold Hills ESA, Cotswolds, Gloucestershire

# Wild birds



## FARMLAND BIRD SPECIES

Corn Bunting

Goldfinch

Greenfinch

Grey Partridge

Jackdaw

Kestrel

Lapwing

Linnet

Reed Bunting

Rook

Skylark

Starling

Stock Dove

Tree Sparrow

Turtle Dove

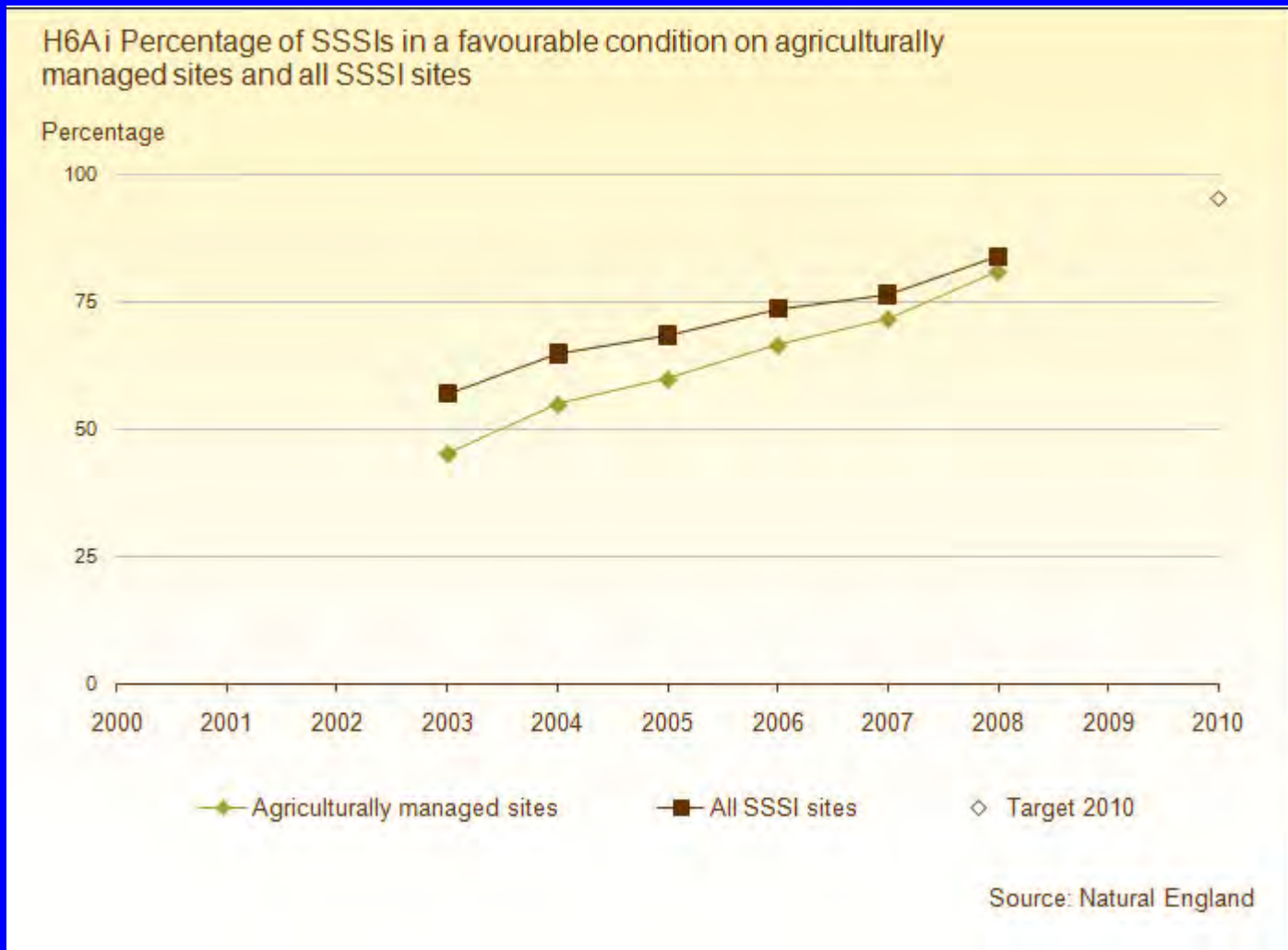
Whitethroat

Woodpigeon

Yellow Wagtail

Yellowhammer

# Condition of Sites of Special Scientific Interest



# Requirements for maintaining environmental quality

- High levels of price support stimulated production intensification in 1980s that caused damage to the rural environment
- Environmental quality requires a continuation of specific agricultural management practices (may be more or less intensive than those that maximise private returns)
- Environmental standards demanded go beyond reference level of property rights, justifying positive payments.
- What sort of policy measure could deliver the desired outcomes?

## 2. Introduction of agri-environment schemes

- Schemes introduced to influence agricultural practices in certain areas
- Defines property rights: voluntary principle and ‘provider gets’ principle
- Potential savings of CAP expenditure by reducing production under agri-environment schemes
- Based on ‘environmental contracts’ government and landholder
- [offered UK access to CAP funds even though large farm size structure?]





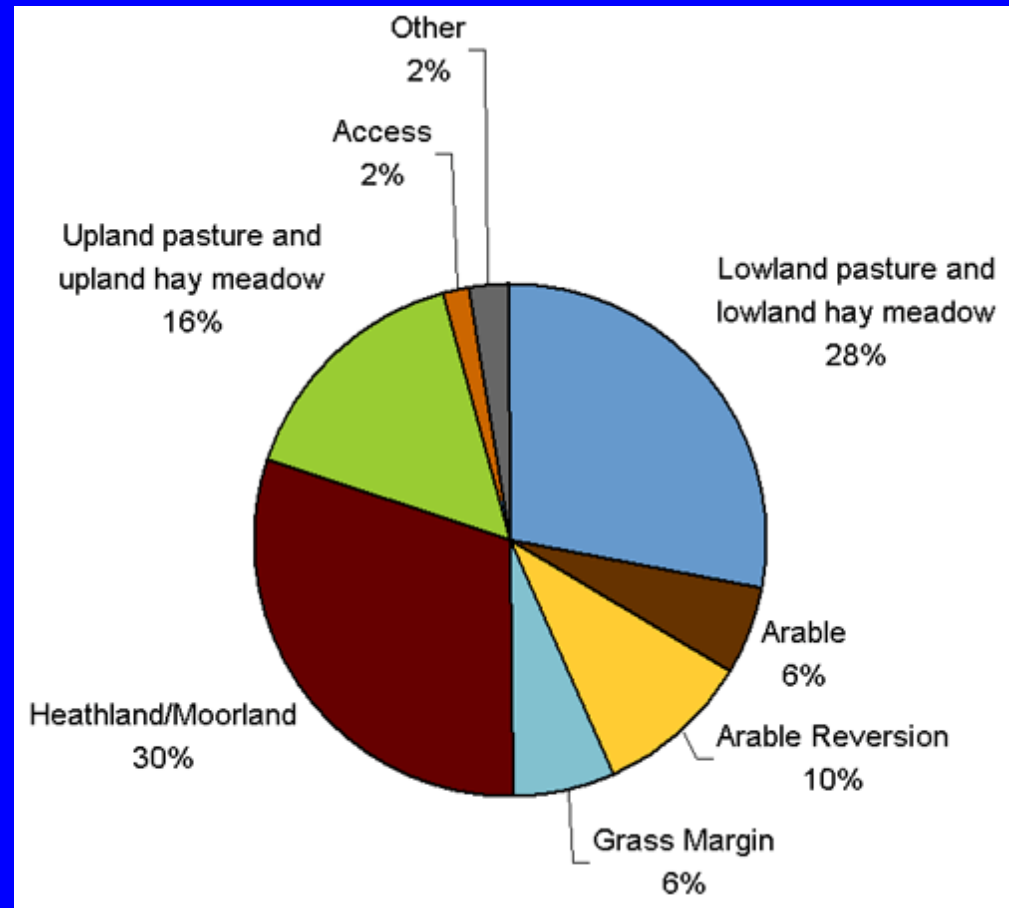
# Environmentally Sensitive Areas

- Voluntary (property rights)
- Standard contracts in designated areas
- Initial priority preventing intensification later emphasis on enhancement
- ESA tiers include basic requirements plus:
  - protection and management of existing features (£12 – £20 basic tier in uplands)
  - reversion of arable land to grass (£275 –290)
  - maintenance of high water levels in wetland habitats (up to £430)
  - establishment of arable field margins (● £90)
  - maintenance of stockproof hedges (£2.40/10m)
  - promotion of public access (£350)

# Countryside Stewardship Scheme 2003

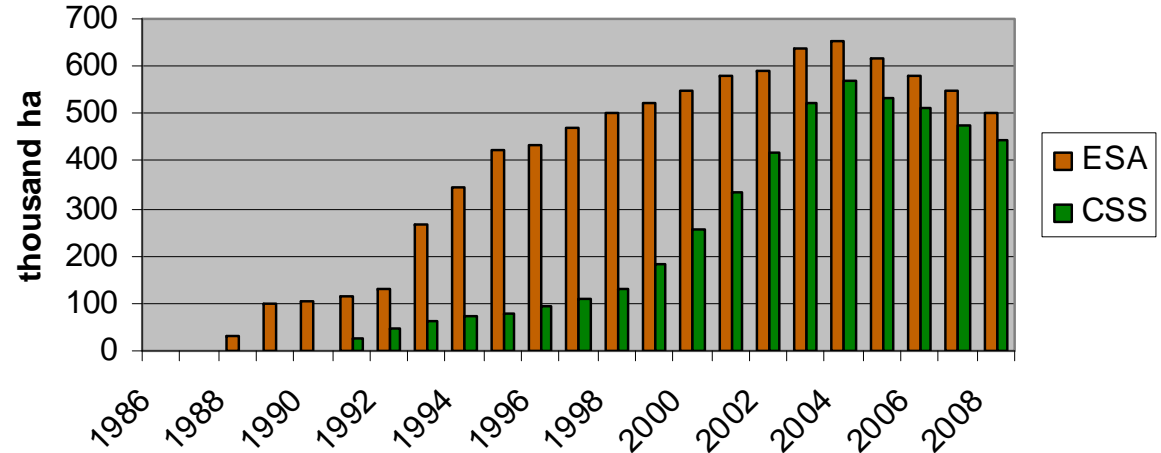
## Area under management by land use category

- Wider coverage
- Environmental enhancement
- Competitive element
- Intensive farm specific planning

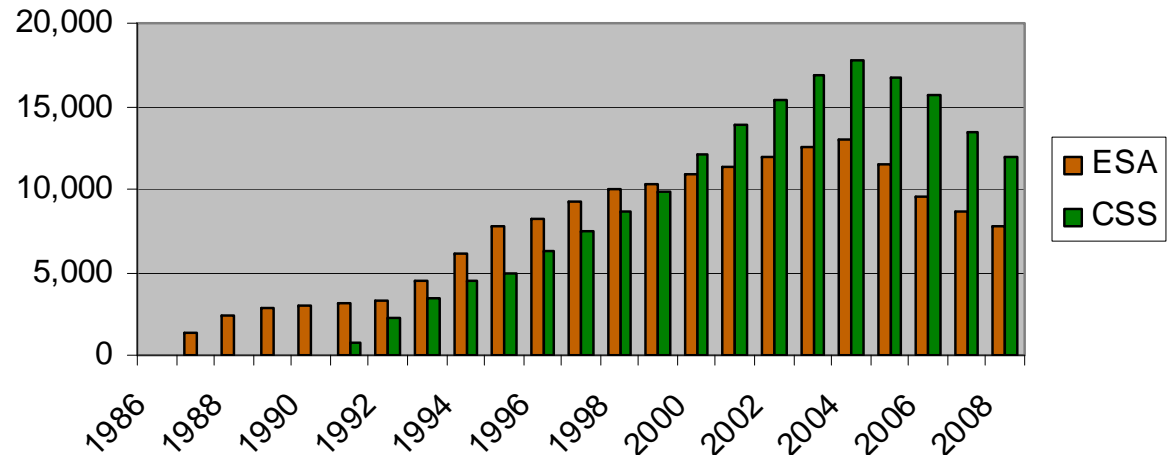


# Take up of Environmentally Sensitive Areas and Countryside Stewardship

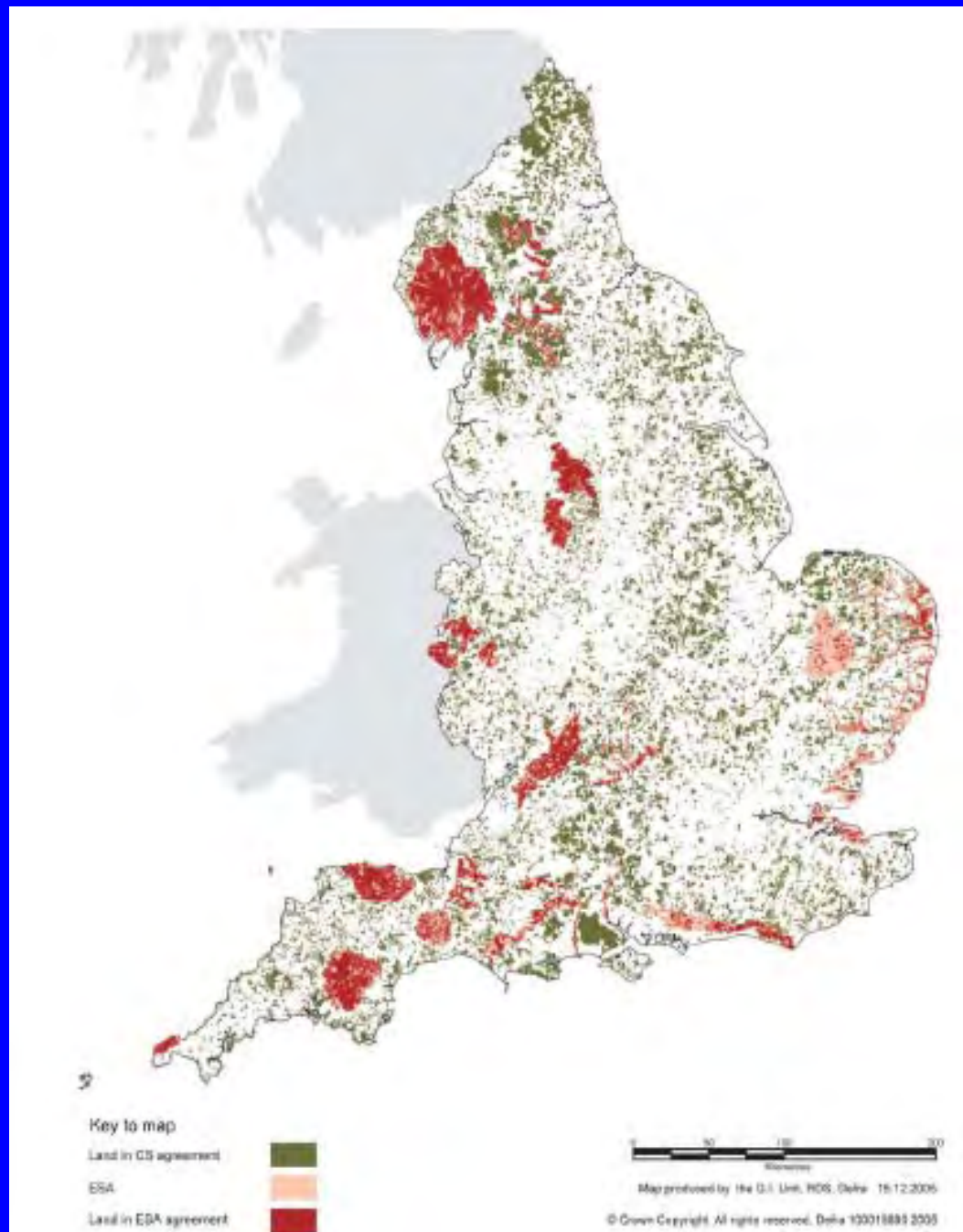
Area of land in schemes



Number of agreements



# ESA and CS land under agreement 2004





# Environmental Stewardship

*(from 2005)*

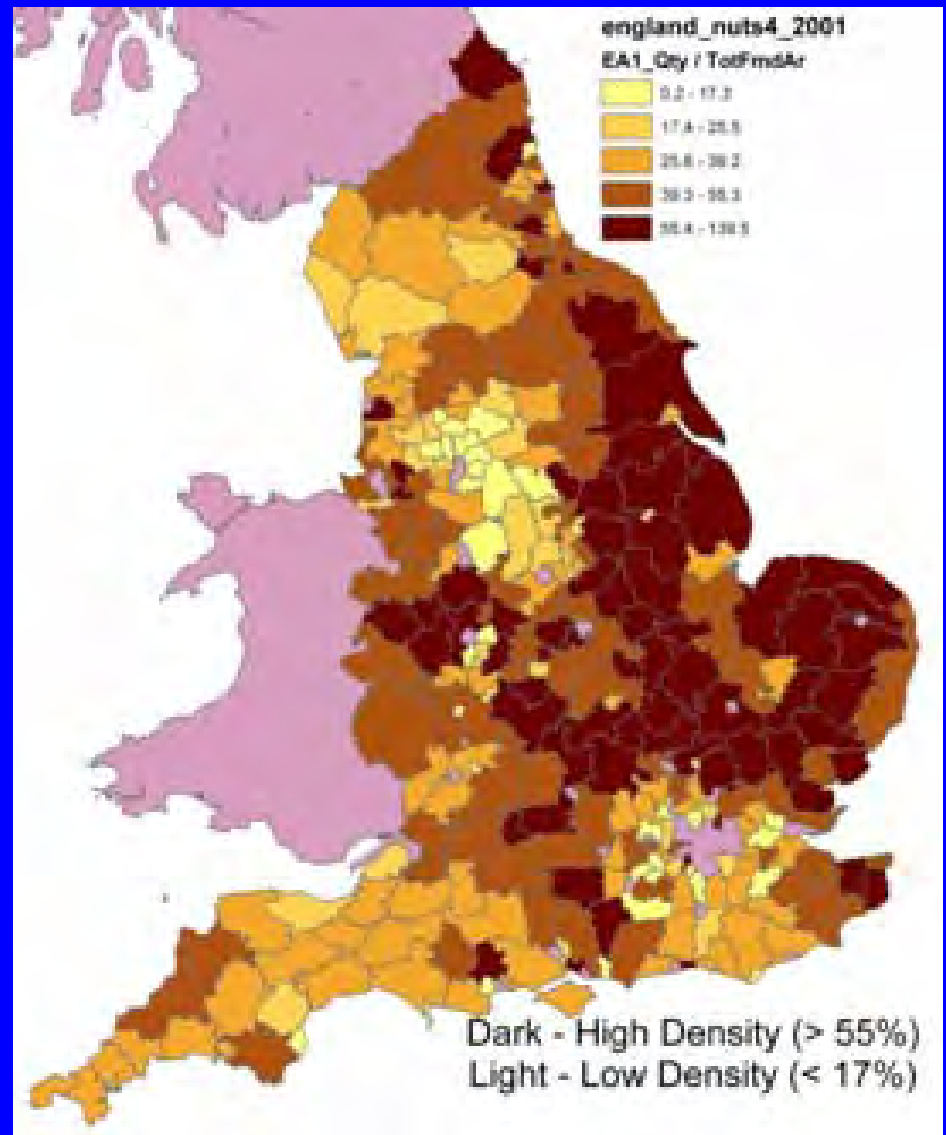
## Entry Level Stewardship

- Open to all farmers in England
- Whole farm scheme
- 56 ‘simple management options’: hedgerow management; maintenance of stone walls; buffer strips round fields; low input grassland; management of upland grazing; winter stubbles;
- Simple administration: options worth points; 30 points required per ha (8 in uplands) to qualify; payment £30/ha (£8/ha in uplands) – automatic acceptance

Code	Option	Units	Points
EB1	Hedgerow management (on both sides of hedge)	100m	22
EB6	Ditch management	100m	24
EB11	Stone wall protection and maintenance	100m	15
ED2	Take archaeological features out of cultivation	ha	460
EE2	4 m buffer strips on cultivated land	ha	400
EE6	6 m buffer strips on intensive grassland	ha	400
EF1	Field corner management	ha	400
EF2	Wild bird seed mixture	ha	450
EF6	Over-wintered stubbles	ha	120
EF8	Skylark plots	plot	5
EG2	Wild bird seed mixture in grassland areas	ha	450
EJ1	Management of high erosion risk cultivated land	ha	18
EK2	Permanent grassland with low inputs	ha	85
EK5	Mixed stocking	ha	8
EL6	Moorland and rough grazing	ha	5 <sub>14</sub>

# Entry Level Scheme

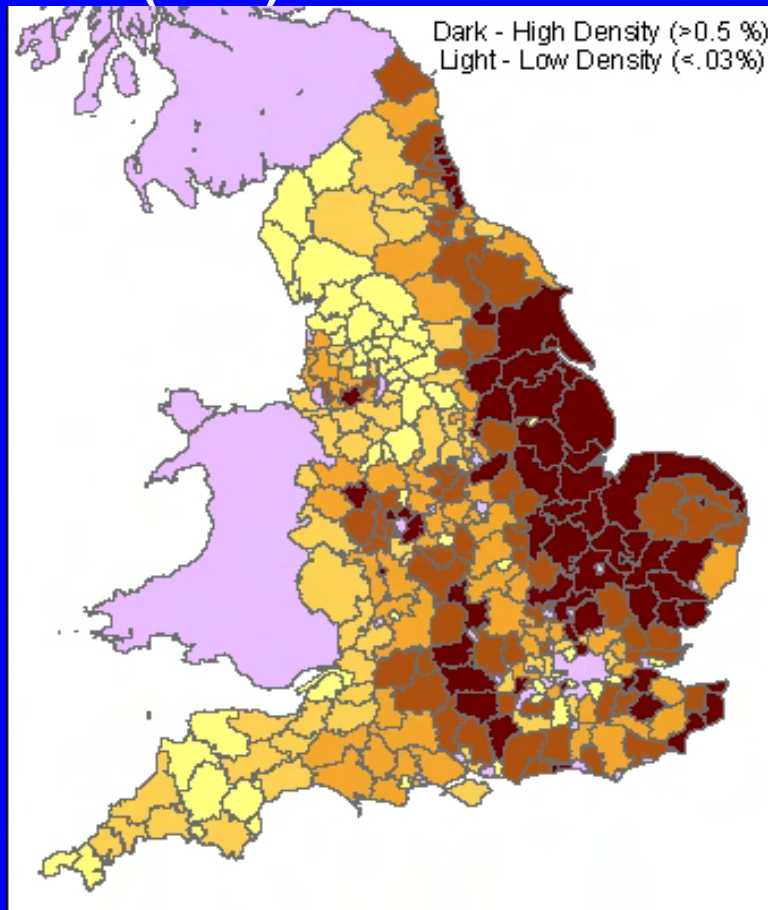
Area as a  
percentage of the  
total farmed area,  
  
by districts  
as at mid 2007



# Entry Level Scheme

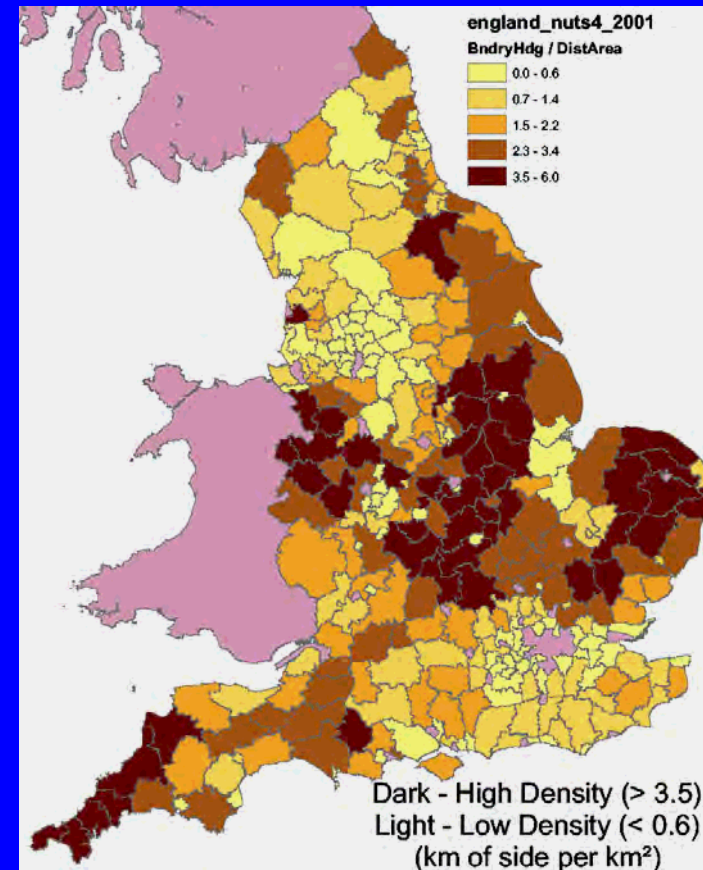
Arable Taken Out (% farmed area)

(2006)



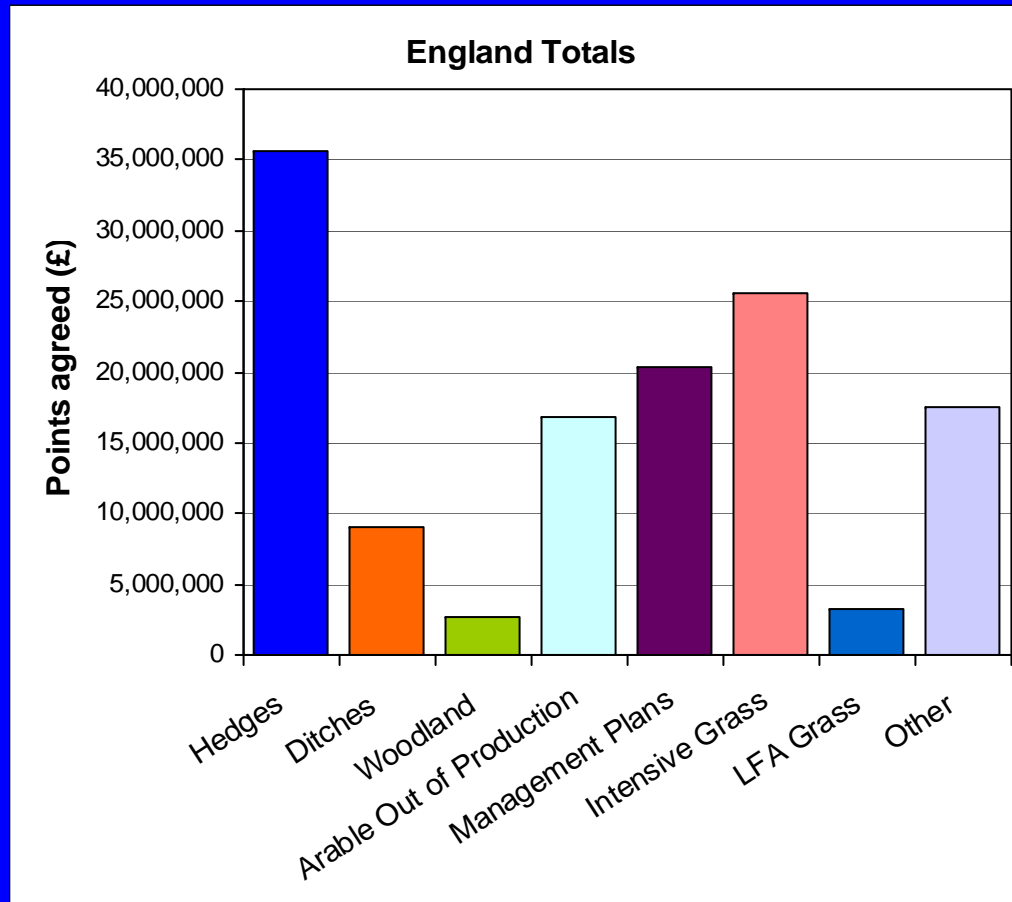
Boundary Hedges (m/ f. area)

(mid 2007)





# Purchase of options in the ELS (mid 2007)



# Organic Entry Level Stewardship

- £60/ha for all organic land entered
- 30 points for 'organic' + 30 points required
- LFA land not eligible
- Land must be registered with Organic Inspection Body as 'fully organic' or 'in conversion'

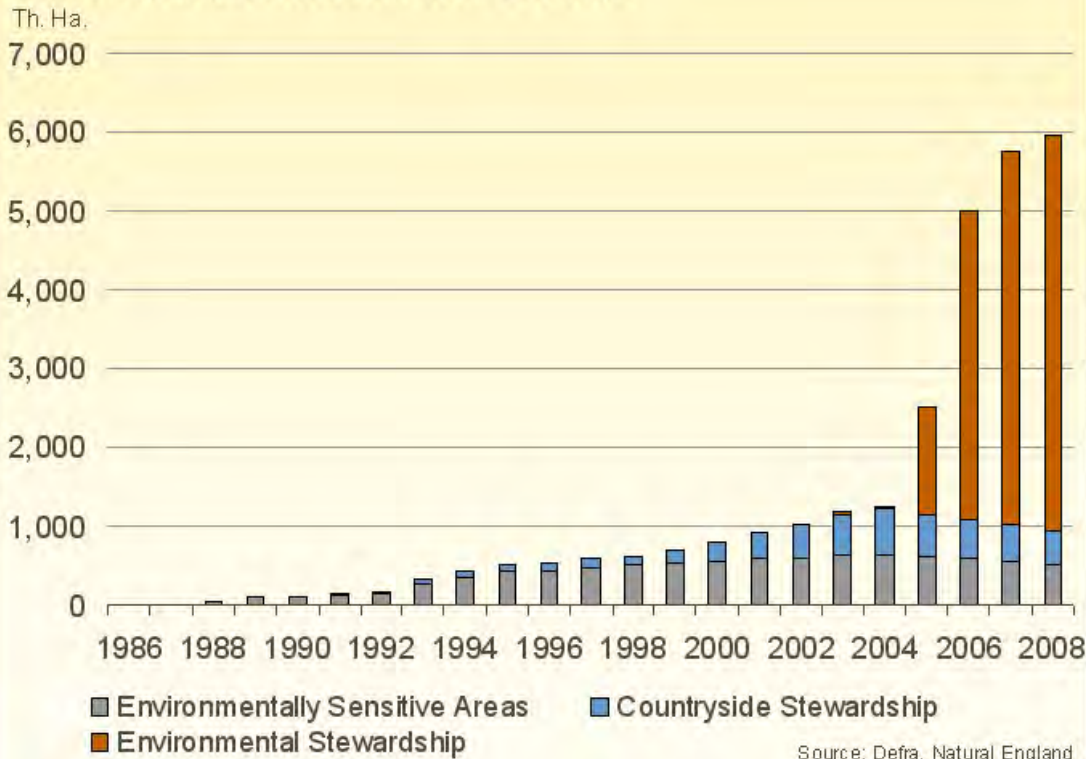
# Implications of the ELS

- Opens schemes to all farmers
- Applicants have to prepare Farm Environmental Record of all features and participation in ELS commits to retain features.
- Accepts payment by government for all environmental actions, irrespective of counterfactual: crowds out ‘stewardship’?
- High risk of adverse selection / deadweight cost
- Establishes framework for more targeted options – rebalanced ELS or top-ups

# Higher Level Stewardship

- Builds on ELS
- Main objectives: Wildlife conservation; protection of historic environment; maintenance and enhancement of landscape quality and character; public access and understanding; resource protection
- Secondary objectives: Flood management; genetic conservation
- Farm environmental plan
- Greater emphasis on ‘outcomes’ over ‘prescriptions’: ‘indicators of success’
- Discretionary and strongly targeted (by area or environmental feature)
- Payments based on income foregone (inc opportunity cost of management)
- National rates, but regional top-up payments possible

### A3b Area under environmental schemes

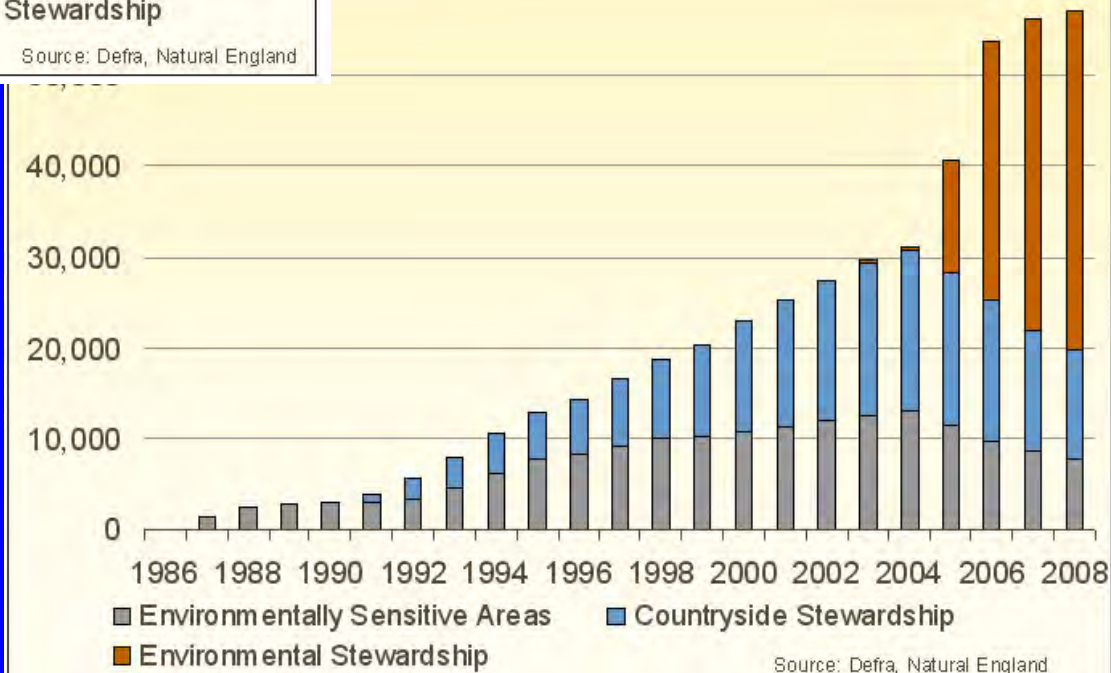


# Agri-environment schemes in England

About 5m ha - 65% of farmland in England under Environmental Stewardship (May 2009)

Agreements

### Number of agreements



# Agri-Environment Schemes

31 March 2009

Scheme	Area (ha)	% of UAA	No of Agreements	Annual Budget	Expend per ha
CSS	434,588	4.7	11,908	£86.4m	£199
ESA	499,731	5.4	7,724	£41.7m	£83
ELS	4,689,778	50.0	35,221	£130.8m	£28
OELS	362,760	3.9	2,542	£38.8m	£107
HLS (Combined with ELS/OELS)	<i>267,613</i>	-	<i>2,860</i>	£52.1m	£195
HLS (Standalone)	57,328	0.6	342	£9.5m	£166
Total HLS	<i>324,941</i>	-	<i>3,202</i>	<i>£61.6m</i>	£190
Overall Total	6,044,185	65.1	57,737	£359.3m	£59

# Developing and rebalancing Entry Level Stewardship I

- Problem of asymmetric information: what is actually being delivered?
- How does payment relate to cost of provision?
- Top down: who decides what should be offered?
- Lack of targeting: are the outcomes what are wanted?

# Developing and rebalancing Entry Level Stewardship II

- Flexible framework for wide scale incentives
  - Reducing intensity in intensive areas
  - Supporting management in extensive areas
- Addressing policy objectives in wider countryside
  - Water Framework Directive (beyond regulation and advice)
  - Decline in farmland birds
  - Compensation for set-aside



# Developing and rebalancing Entry Level Stewardship III

- Entry level ‘top-up’:
  - Target on sensitive river basins
  - Areas with biodiversity losses
- Offer different rates of payment in different areas
- Could allocate on competitive basis
  - Include willingness to accept lower payment
  - Environmental Benefits Index
- Change payment levels, weights etc to reflect changing market conditions and policy priorities

# Compensation for set-aside I

- Environmental benefits of set-aside
  - Habitat for farmland birds
    - Winter food for adults
    - Summer food for adults and chicks
    - Breeding habitat
  - Reduction in sediment and phosphate flows from soil erosion
  - Substantial areas dominated by common plants that contribute to botanical diversity and provide food for birds and butterflies
  - Feeding and breeding habitat for brown hare
  - Cover and feeding areas for voles and other small mammals
- Located in areas of most intensive production



# Compensation for set-aside II

- Policy options
  - Option A: Defra proposal:
    - Cross-compliance requirement for 4-6% in uncropped for environmental protection
    - Voluntary ‘top-ups’ for more demanding environmental management
  - Option B: CLA/NFU plan for ‘Campaign for the Farmed Environment’:
    - Voluntary approach to promote ELS and voluntary environmental management

# Directions for future policy

- Reforming agricultural policy – reducing incentives for environmental damage: SFP important
- Reflecting environmental priorities: esp climate change
- Increasing cost-effectiveness and promoting efficiency of schemes: tendering and auctions?
- Optimising transactions costs: how much targeting?
- Securing property rights (beyond end of contract or scheme): land and covenant acquisition
- Promoting entrepreneurship
- Co-ordination by suppliers: co-operative environment and collective contracts

# Limits of environmental contracts:

- Need (in principle) to write rules into enforceable contracts
  - Asymmetric information
  - Influence of centre in determining what local environments ‘should’ be like
  - Short term measures don’t provide security for environmental gains
  - Limited incentives to experiment, to seek least cost solutions, to co-ordinate
- ..... *potential for voluntary and market approaches?*

# Beyond agri-environmental governance – rural environmental policy

- Markets for environmental benefits
- Developing lower environmental impact (high yield?) agricultural systems
- Conservation covenants
- Conservation land ownership

# Further information

- Environmental Stewardship
  - Defra (2008) *Environmental Stewardship: Review of Progress*. Defra, London.
  - Hodge, I. and Reader, M. (2009) The introduction of Entry Level Stewardship in England: Extension or dilution in agri-environment policy? *Land Use Policy* (in press)  
doi:10.1016/j.landusepol.2009.03.005
- Web sources:
  - Environmental Stewardship  
<http://www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx>