

# 2011 JRC TECHNICAL WORKSHOP ON KP-LULUCF

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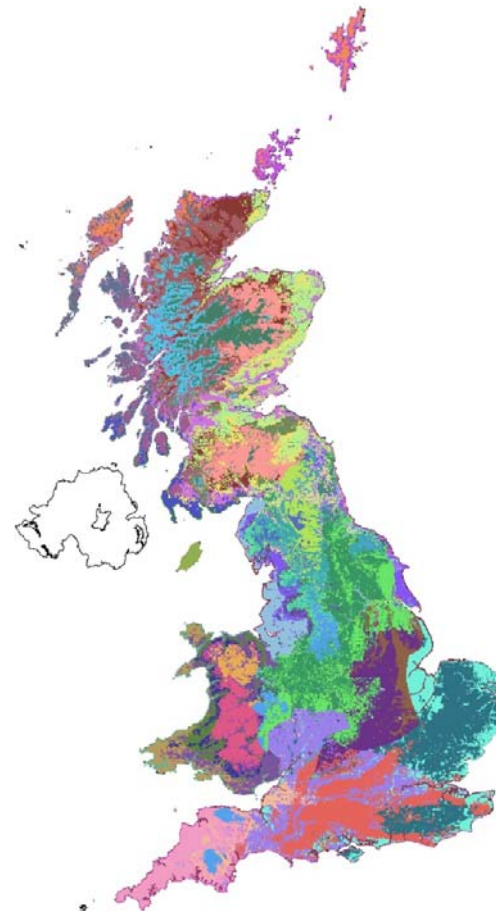
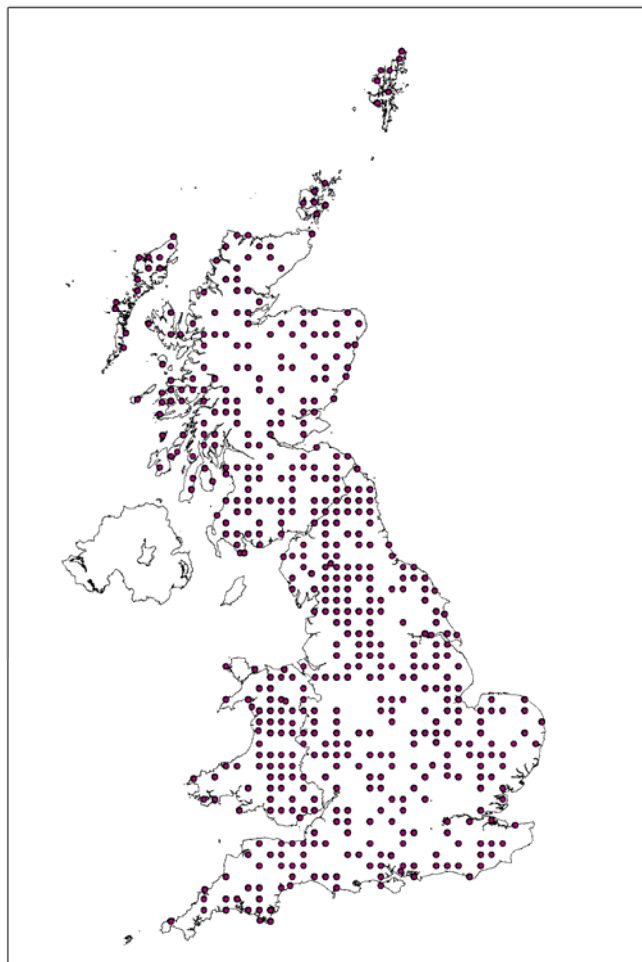


# Countryside Survey



- ~ 500 square kilometres surveyed that coincide between CS 1998 and CS 2007.
- Matrices of change derived from differences within the surveyed squares.
- Each area of land within the survey squares is designated a 'Broad Habitat'.
- Each area is also tagged with a 'land class' depending on where in Great Britain the area lies.

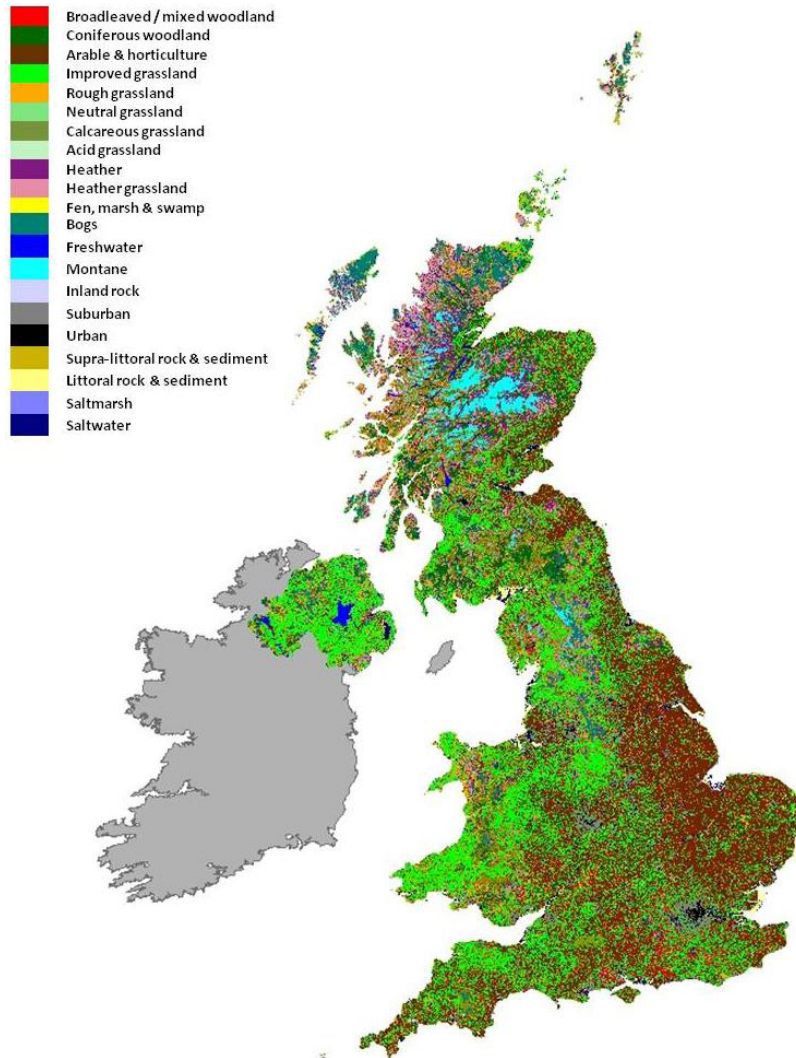
# Countryside Survey Land Classes



We use a 'land class' map based on geology and climate to scale up the change within the surveyed areas to full GB coverage.



# Land Cover Map



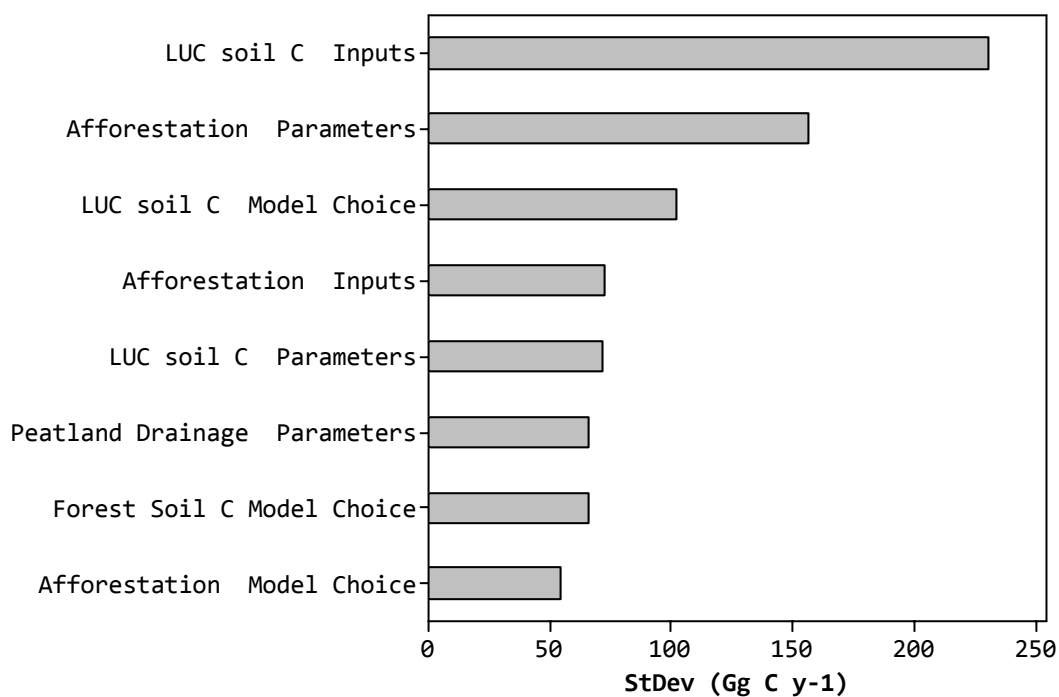
- LCM2007 has been derived from satellite images, digital cartography, ground reference data and ancillary datasets.
- With Land Cover Map, we expect to reduce some uncertainties associated with up- scaling.
- Land Cover Map has excellent spatial coverage. Temporal resolution however is low.

## Comparisons with previous estimates

<b>LULUCF Category</b>	<b>Emission/Removal 2007 (Gg CO<sub>2</sub>)</b>	<b>Uncertainty (%) Previous methods</b>	<b>Uncertainty (%) This method</b>
5A Forest Land	-14173	25%	22 %
5B Cropland	+15288	50%	52 %
5C Grassland (includes most organic soil)	-7967	55%	
5E Settlements	+6330	50%	
5G Harvested Wood Products	-1293	30%	>22 % (+uncertainty in decay term)

# Comparisons with previous estimates

- Standard deviation in output distributions as measure of uncertainty
  - ranked order



- Areas undergoing land use change are the biggest uncertainty
- Forest model parameters
- Model choice significant
- Soil C parameters
- Peatland drainage largest of other activities
- Forest model choice is least important – all based on same YC data

# Revisions in the 2010 inventory in response to the 2009i Saturday paper

1. Incomplete land coverage
  - NFI first results (woodland map and revised woodland areas) published but areas of woodland loss still under investigation
  - Deforestation for Northern Ireland now reported, based on Country Survey data
  - Use GFRA 2010 for Overseas Territories – all report no change and only two have >1000 ha forest area
2. Deforestation
  - New spatial datasets on unconditional felling licences for England, Scotland and Wales -> country-specific estimates from 1999 onwards. 1990-1999 extrapolated using Countryside Survey data
  - Deforestation in Northern Ireland estimated from CS data (assume that discount rate for NI is same as that for GB)
3. Wildfires on Deforestation land
  - Currently no activity data for wildfires on non-forest land- new spatial data on fire incidences is becoming available

# New reporting in 2010 UNFCCC inventory

- Revised reporting categories
  - Land converted to Cropland/Grassland/Settlements now split between using 20 year transition period (soil carbon fluxes still reported)
  - Improved consistency in reporting of land areas
- New activity data
  - New felling licence data (on previous slide)
  - Revised deforestation data used to revise soil carbon fluxes
  - Data for UK's Overseas Territories and Crown Dependencies updated
  - Location of peat extraction sites updated (new information for 2002 and 2005)
  - New source of data for agricultural lime application in Northern Ireland



## New reporting in 2010 Kyoto Protocol LULUCF inventory

- Deforestation in Northern Ireland
- Emissions from liming of land deforested to cropland
- Forest wildfire emissions split between Afforestation and Forest Management land proportionately (previously all reported under Forest Management)

## Planned improvements in the 2011 inventory

- National Forest Inventory- first maps and results available from March 2011
  - Revision of deforestation estimates and verification of afforestation estimates

# Saturday paper issues - 2009 inventory

1. *Incomplete land coverage on ARD and FM*
  - *The ERT recommends that the UK provide the ERT with information to demonstrate how it will ensure a complete land coverage on ARD and FM, and report on the way of identification of land subject to the Article 3.3 and 3.4 activities in Northern Ireland and OTs and CDs.*
2. *Information that demonstrates that Deforestation activities began on or after 1 January 1990*
  - *The ERT recommends that the UK provide the ERT with information to justify why the deforestation rates in England can be considered as a suitable proxy for deforestation in Scotland and Wales.*
3. *Emissions from wildfires on Deforestation lands*
  - *The ERT recommends that the UK provide the ERT with information to demonstrate that wildfire emissions on deforestation lands are not a net source*