

# **Emissions and Removals of Greenhouse Gases from Land Use, Land Use Change and Forestry (LULUCF) for England, Scotland, Wales and Northern Ireland: 1990-2011**

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## Contacts

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## Executive Summary

This report presents a summary of the net emissions and removals of greenhouse gases for 1990-2011 by the Land Use, Land Use Change and Forestry sector of the UNFCCC National Inventory for each of the Devolved Administrations (England, Scotland, Wales and Northern Ireland). Supporting data is available at [http://naei.defra.gov.uk/reports/reports?report\\_id=734](http://naei.defra.gov.uk/reports/reports?report_id=734). A full report for the UK is available in the 1990-2011 UK Greenhouse Gas Inventory Report, available on the National Atmospheric Emissions Inventory at [http://naei.defra.gov.uk/reports/reports?report\\_id=747](http://naei.defra.gov.uk/reports/reports?report_id=747).

The LULUCF sector in England was a net source of GHG emissions in 2011 (1.733 Mt CO<sub>2</sub>e). The size of this source has diminished since 1990 (6.011 Mt CO<sub>2</sub>e).

The LULUCF sector in Scotland was a net sink of GHG emissions in 2011 (-5.270 Mt CO<sub>2</sub>e). This sink increased steadily from 1990 (-2.055 Mt CO<sub>2</sub>e) to 2010 (-5.505 Mt CO<sub>2</sub>e) but has shrunk in 2011.

The LULUCF sector in Wales was a small net source of GHG emissions in 2011 (0.141 Mt CO<sub>2</sub>e). Net emissions/removals have fluctuated between source and sink since 1990. The back-calculations of the inventory data have changed the 2010 value from a small net sink (-0.042 Mt CO<sub>2</sub>e) in the 1990-2010 Inventory to a small net source (0.151 Mt CO<sub>2</sub>e) in the 1990-2011 Inventory.

The LULUCF sector in Northern Ireland was a small net source in 2011 (0.180 Mt CO<sub>2</sub>e) but was a small sink between 1992 and 2004.

Small changes between this and the 1990-2010 inventory are due to the inclusion of new activity data and some minor revisions in methods.

## Introduction

The Land Use, Land Use Change and Forestry (LULUCF) sector includes carbon stock changes, emissions of greenhouse gases (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O)) by sources and removals of CO<sub>2</sub> by sinks from land use, land use change and forestry activities. Removals of CO<sub>2</sub> are conventionally presented as negative quantities. Total greenhouse gas emissions are described as carbon dioxide equivalents (CO<sub>2</sub>e), using Global Warming Potentials (GWP) of 21 for CH<sub>4</sub> and 310 for N<sub>2</sub>O (as used in the inventories submitted to the UNFCCC).

Detailed information on the data and methods used in the LULUCF inventory is available in the 1990-2011 UK Greenhouse Gas Inventory Report, available on the National Atmospheric Emissions Inventory website [http://naei.defra.gov.uk/reports/reports?report\\_id=747](http://naei.defra.gov.uk/reports/reports?report_id=747). Chapter 7 and Annex 3.7 of the National Inventory Report contain information on the LULUCF sector, and Chapter 11 contains additional information on the reporting of LULUCF activities for the Kyoto Protocol. Additional information on LULUCF and KP-LULUCF inventory reporting will be made available at <http://ecosystemghg.ceh.ac.uk/> once the current restructuring of this website is complete.

The current LULUCF inventory methods use a combination of top-down and bottom-up approaches, based on activity data for each of the Devolved Administrations and the UK as a whole. As a result of this approach, estimates of emissions and removals from LULUCF activities are automatically produced at the DA and UK scale.

Net emissions and removals in greenhouse gases are summarised for each country and the reasons for differences from the previous inventory are provided. The trends in CO<sub>2</sub> emissions / removals are presented for each category within LULUCF, along with total emissions of methane and nitrous oxide. Summary tables for 1990, 1995, 2000, 2005 and 2010 are given in for each country in Appendix 1, and for LULUCF emissions/removals under the Kyoto Protocol in Appendix 2. Appendix 3 contains the annual Land Use Change matrices for each country. A full set of GHG emissions/removals and areas of land use change for each country are published with this report at [http://naei.defra.gov.uk/reports/reports?report\\_id=734](http://naei.defra.gov.uk/reports/reports?report_id=734).

## LULUCF Emissions and Removals in England

England is a net source of greenhouse gases from LULUCF activities although the size of this source has diminished by 71% between 1990 and 2011 from 6.011 to 1.733 Mt CO<sub>2</sub>e (see Appendix 1 for emissions / removals by LULUCF category and gas). Net emissions of CO<sub>2</sub> from the Cropland and Settlement categories are diminishing over time, while net removals from the Grassland category are increasing (Figure 1). Net removals from the Forest Land category increased to 2004 but are now diminishing. The Wetlands and Harvested Wood Products categories make small contributions to the total.

Compared to the 1990-2010 Inventory, net emissions of greenhouse gases in the 1990-2011 inventory in 1990 have increased by 0.031 Mt CO<sub>2</sub>e, an increase of 0.5%. Emissions in 2010 decreased by 0.0007 Mt CO<sub>2</sub>e, equivalent to 0.04%. These differences were due to improvements in activity data (Table 1). Differences between the 2010 and 2011 inventories in each category are presented in Figure 3A & Figure 3B.

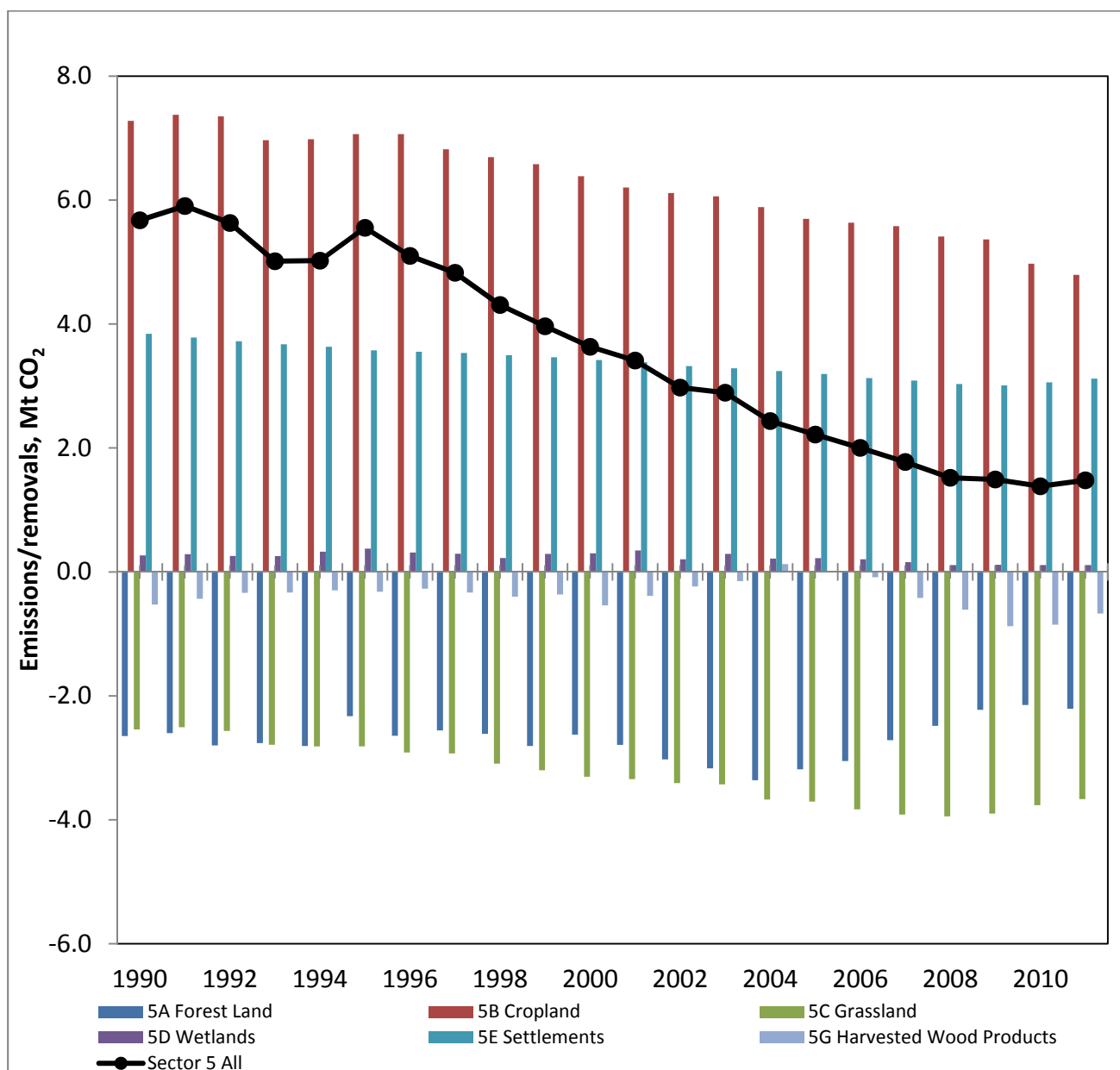


Figure 1: Net CO<sub>2</sub> emissions and removals by category for the LULUCF sector in England 1990-2011

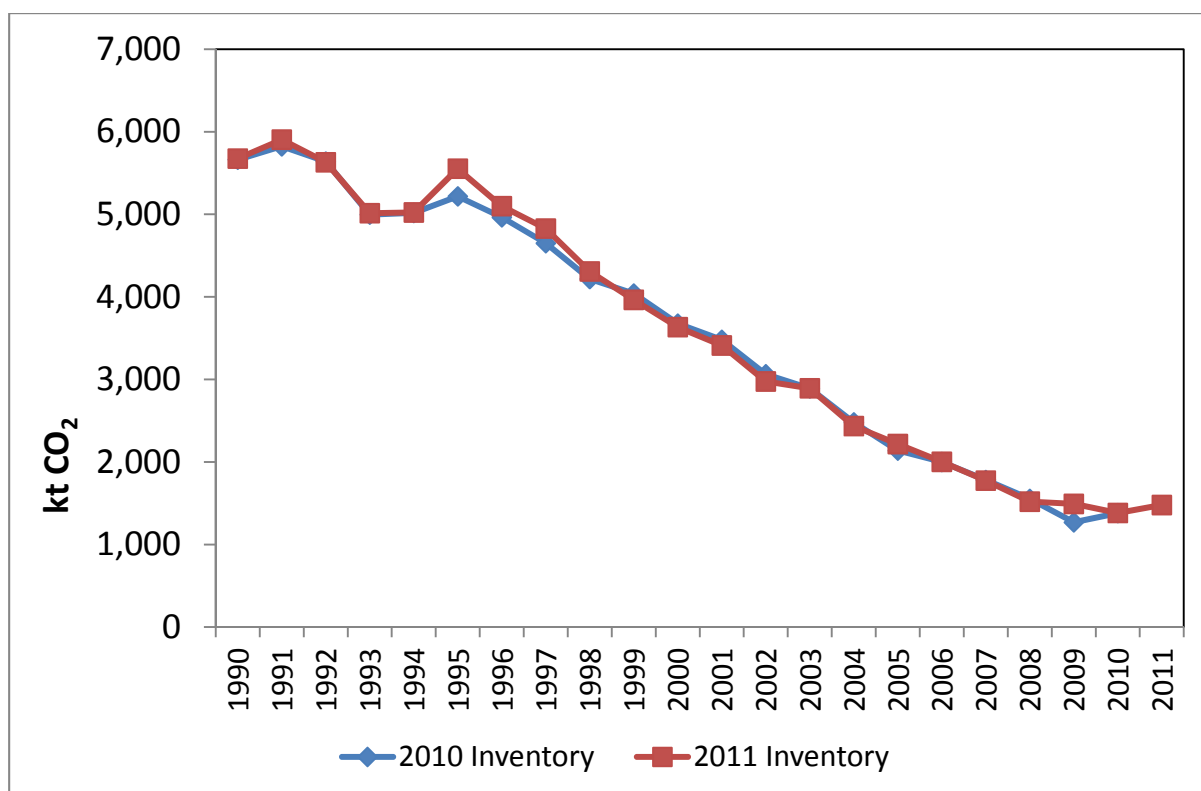


Figure 2: Changes in net CO<sub>2</sub> emissions/removals 1990-2009 between the 2010 and 2011 inventories for England

Table 1: Improvements in the source data and/or methodology and their effects on Inventory data for England

IPCC Sector	Method and data revisions	Difference between 2011 and 2010 inventory estimates, kt CO <sub>2</sub> e	
		1990	2010
5A Forest Land	Adjustments take account of new wildfires activity data and inclusion of DOM in biomass burning	68.83	-24.73
5B Cropland	Biomass and DOM losses following deforestation are now estimated from country-specific biomass densities. Also there is a correction of error in 2010 inventory (Settlements converted to Cropland)	16.62	-157.80
5C Grassland	New activity data for Forest Land converted to Grassland. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities.	-17.81	45.01
5D Wetlands	Extraction sites that are no longer active are assumed to be still producing on-site emissions. 2009-2010: new activity data published	0.00	107.20
5E Settlements	Revised activity data for Forest Land converted to Settlements. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities	-55.31	-17.58
5G Harvested Wood Products	Revised deforestation activity data affected the pool of harvested wood products.	0.00	49.81



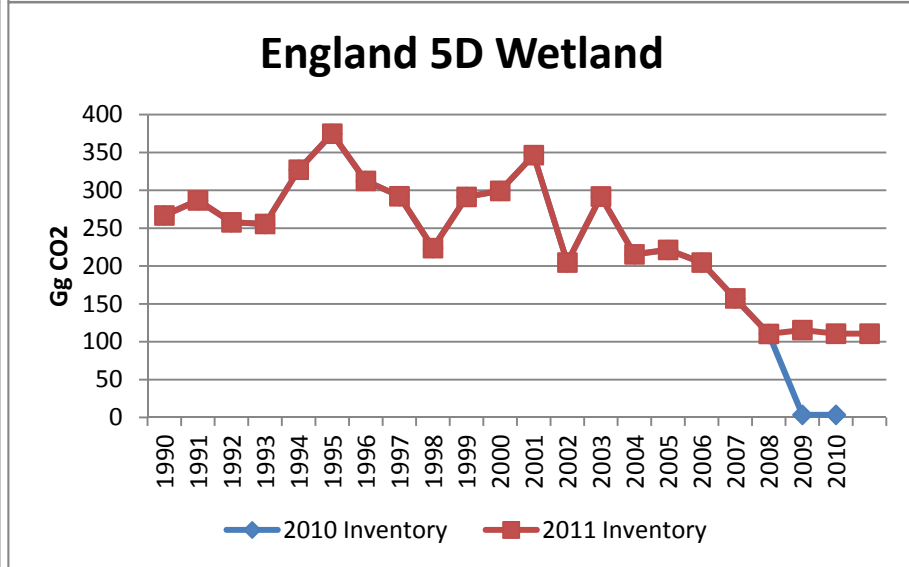
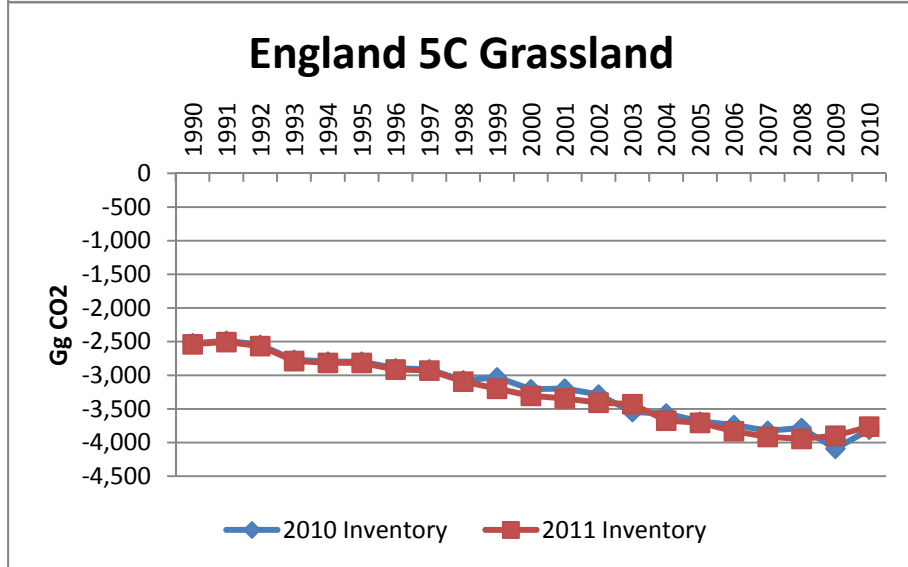
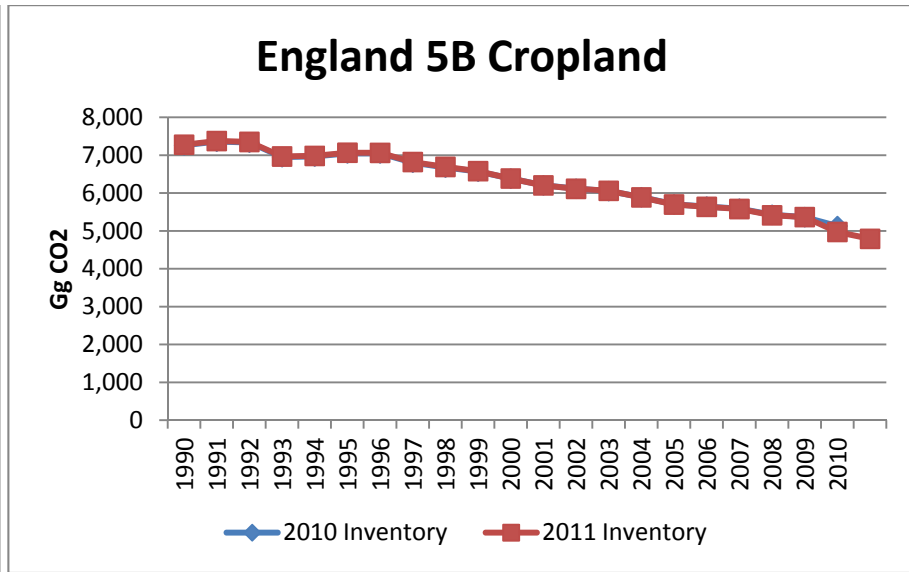
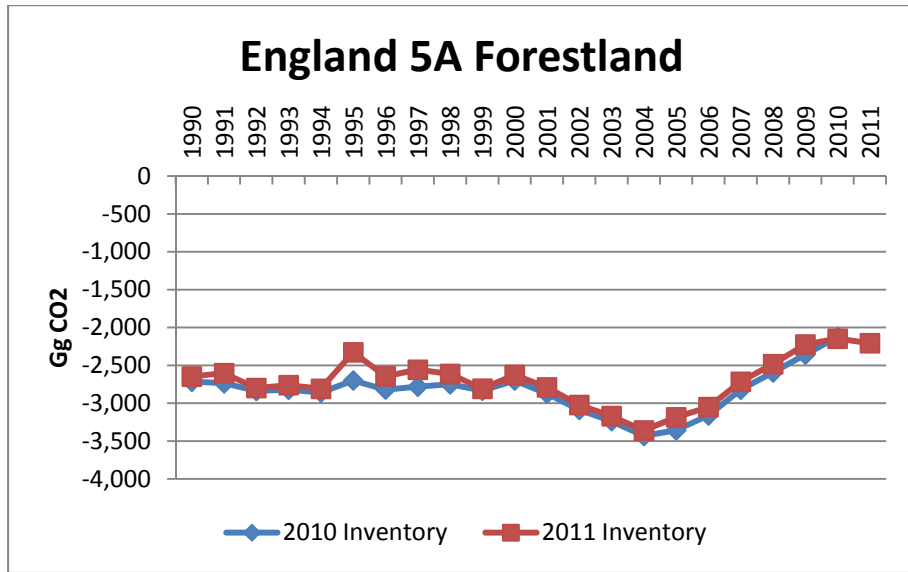


Figure 3A: Differences in net CO<sub>2</sub> emissions and removals by category in England between the 2010 and 2011 Inventories

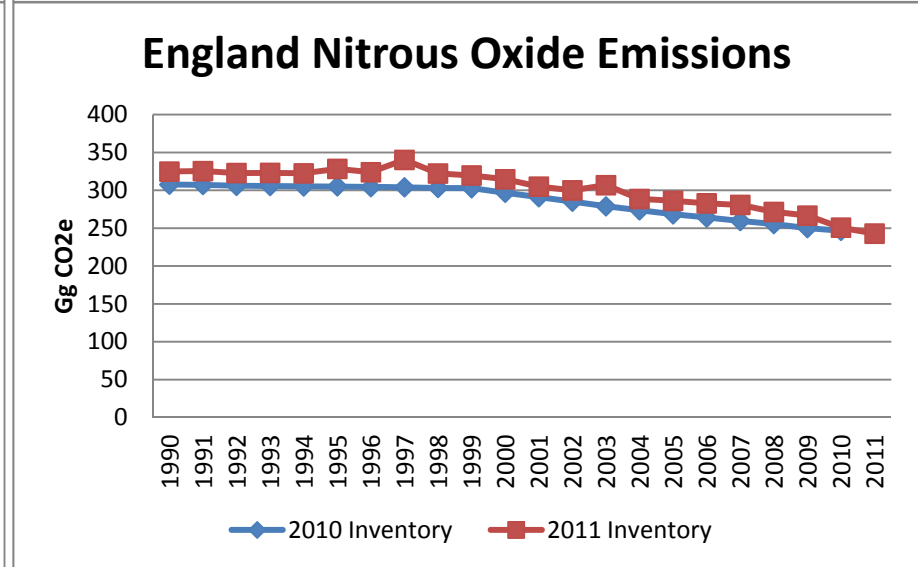
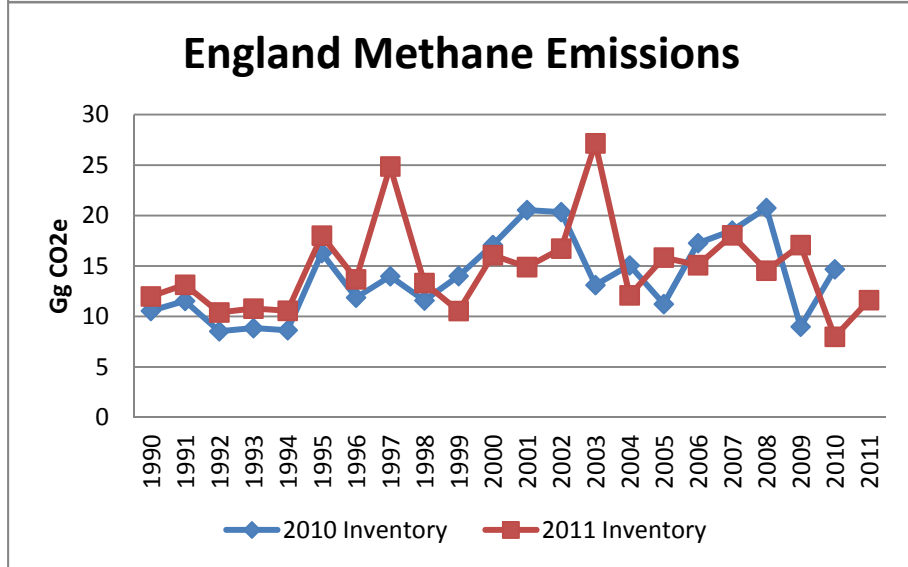
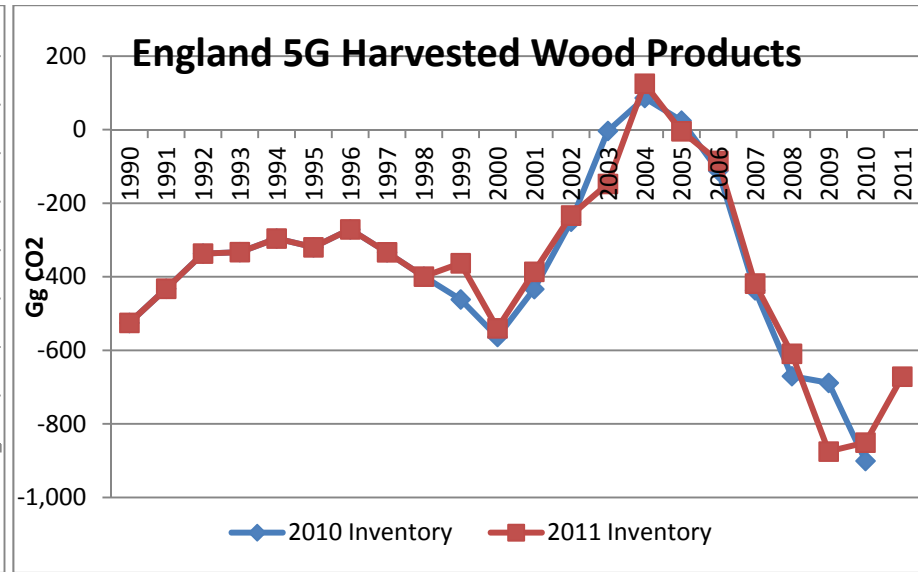
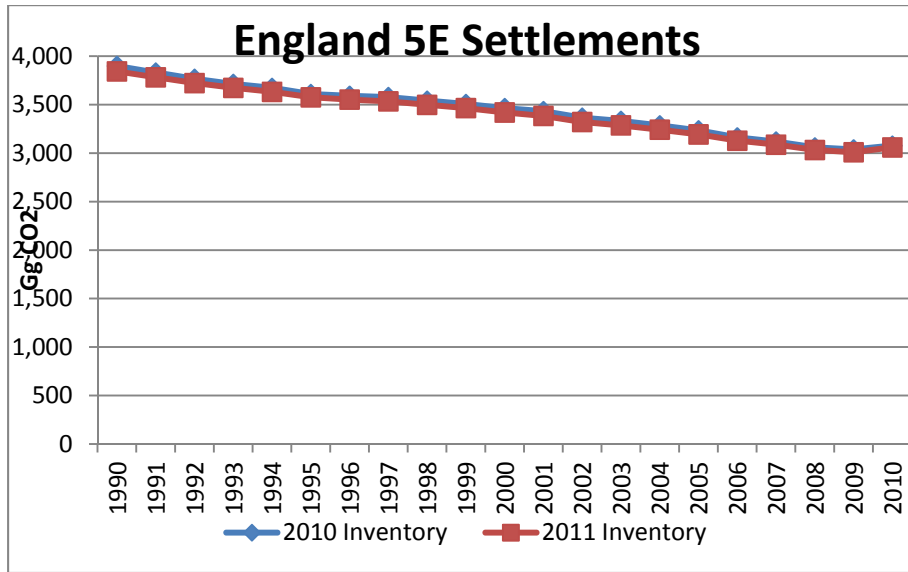


Figure 3B: Differences in net CO<sub>2</sub> emissions / removals and emissions of non-CO<sub>2</sub> gases by category in England between the 2010 and 2011 Inventories

## LULUCF Emissions and Removals in Scotland

Scotland is a net sink of greenhouse gases from LULUCF activities and the size of this sink has increased by 156% between 1990 and 2011 from -2.055 to -5.270 Mt CO<sub>2</sub>e. There was a slight reduction in sink size between 2010 and 2011, due to long-term forest management (the extensive conifer plantations established in the mid-20<sup>th</sup> century are now reaching felling age, with reduced removals from forest and increased carbon stocks in harvested wood products). Net emissions/removals in Scotland are dominated by the large Forest Land sink (-7.382 Mt CO<sub>2</sub>e in 2011) and Cropland source (4.780 Mt CO<sub>2</sub>e in 2011) (Figure 4)

Compared to the 1990-2010 Inventory, net removals of greenhouse gases in the 1990-2011 inventory in 1990 have decreased by 0.043 Mt CO<sub>2</sub>e, a net increase of 2%. Emissions in 2010 decreased by 0.050 Mt CO<sub>2</sub>e, equivalent to 0.9%. These differences were due to improvements in activity data (Table 2). Differences between the 2010 and 2011 inventories in each category are presented in Figure 6A & Figure 6B.

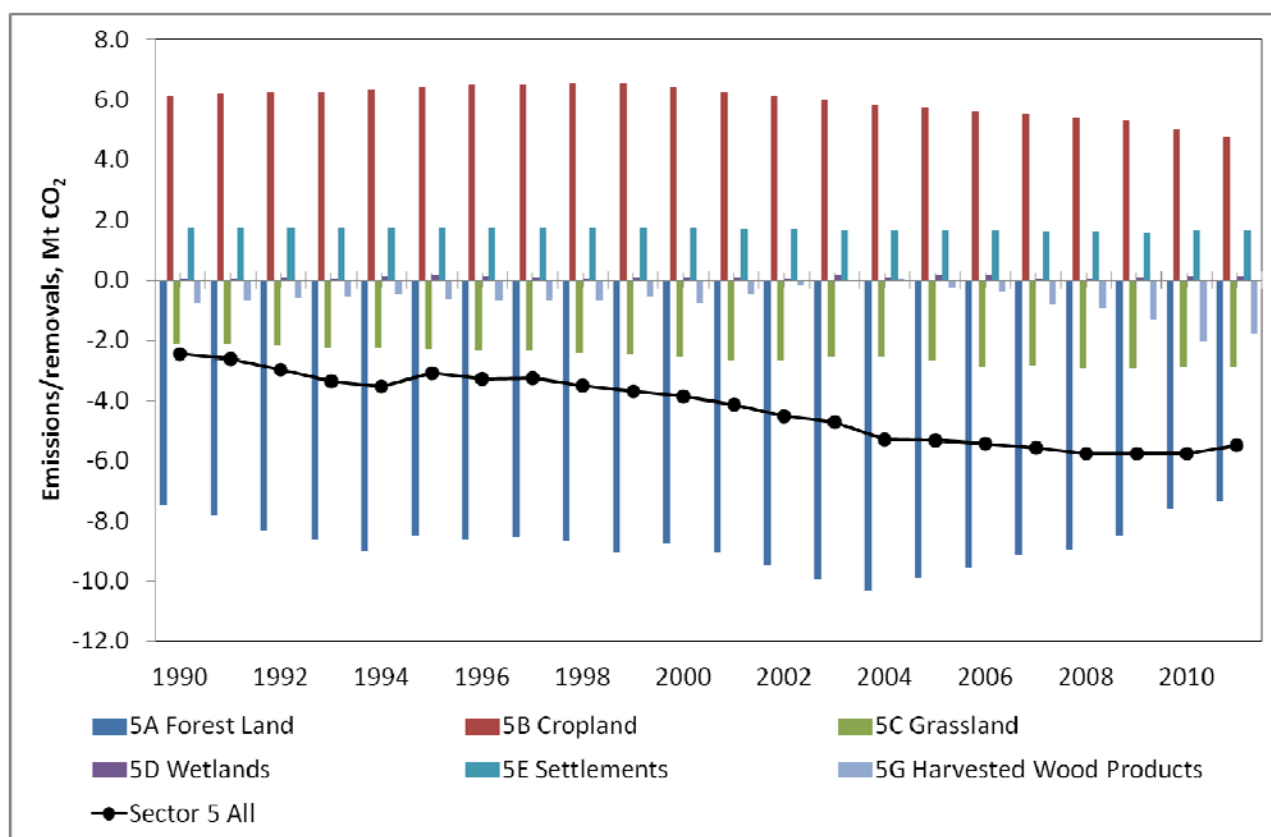


Figure 4: Net CO<sub>2</sub> emissions and removals by category for the LULUCF sector in Scotland 1990-2011

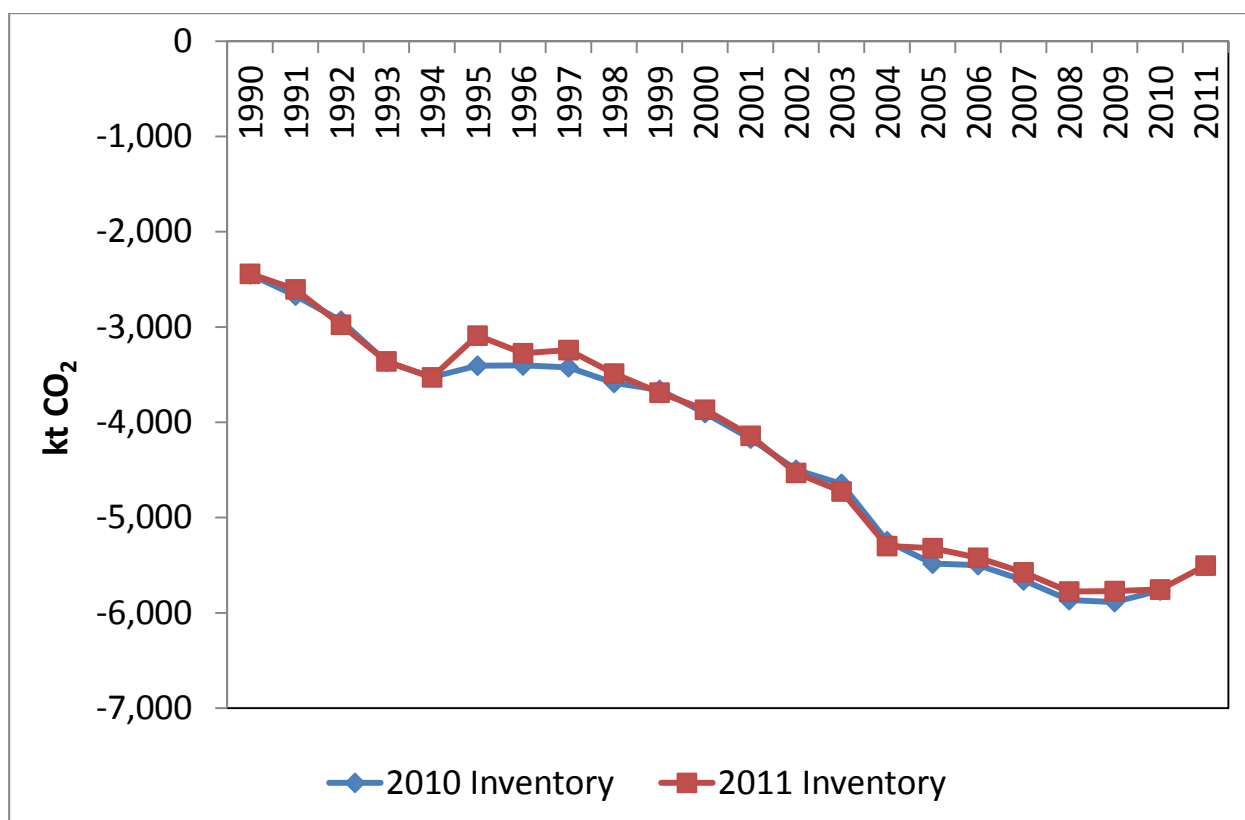


Figure 5: Changes in net CO<sub>2</sub> emissions/removals 1990-2009 between the 2010 and 2011 inventories in Scotland

Table 2 : Improvements in the source data and/or methodology and their effects on Inventory data for Scotland

IPCC Sector	Method and data revisions	Difference between 2011 and 2010 inventory estimates, kt CO <sub>2</sub> e	
		1990	2010
5A Forest Land	Adjustments take account of new wildfires activity data and inclusion of DOM in biomass burning	53.73	-25.04
5B Cropland	Biomass and DOM losses following deforestation are now estimated from country-specific biomass densities. Also there is a correction of error in 2010 inventory (Settlements converted to Cropland	0.03	-20.28
5C Grassland	New activity data for Forest Land converted to Grassland. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities.	-18.46	24.87
5D Wetlands	Extraction sites that are no longer active are assumed to be still producing on-site emissions. 2009-2010: new activity data published	0.00	32.41
5E Settlements	Revised activity data for Forest Land converted to Settlements. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities	-30.28	16.76
5G Harvested Wood Products	Revised deforestation activity data affected the pool of harvested wood products.	0.00	-18.01

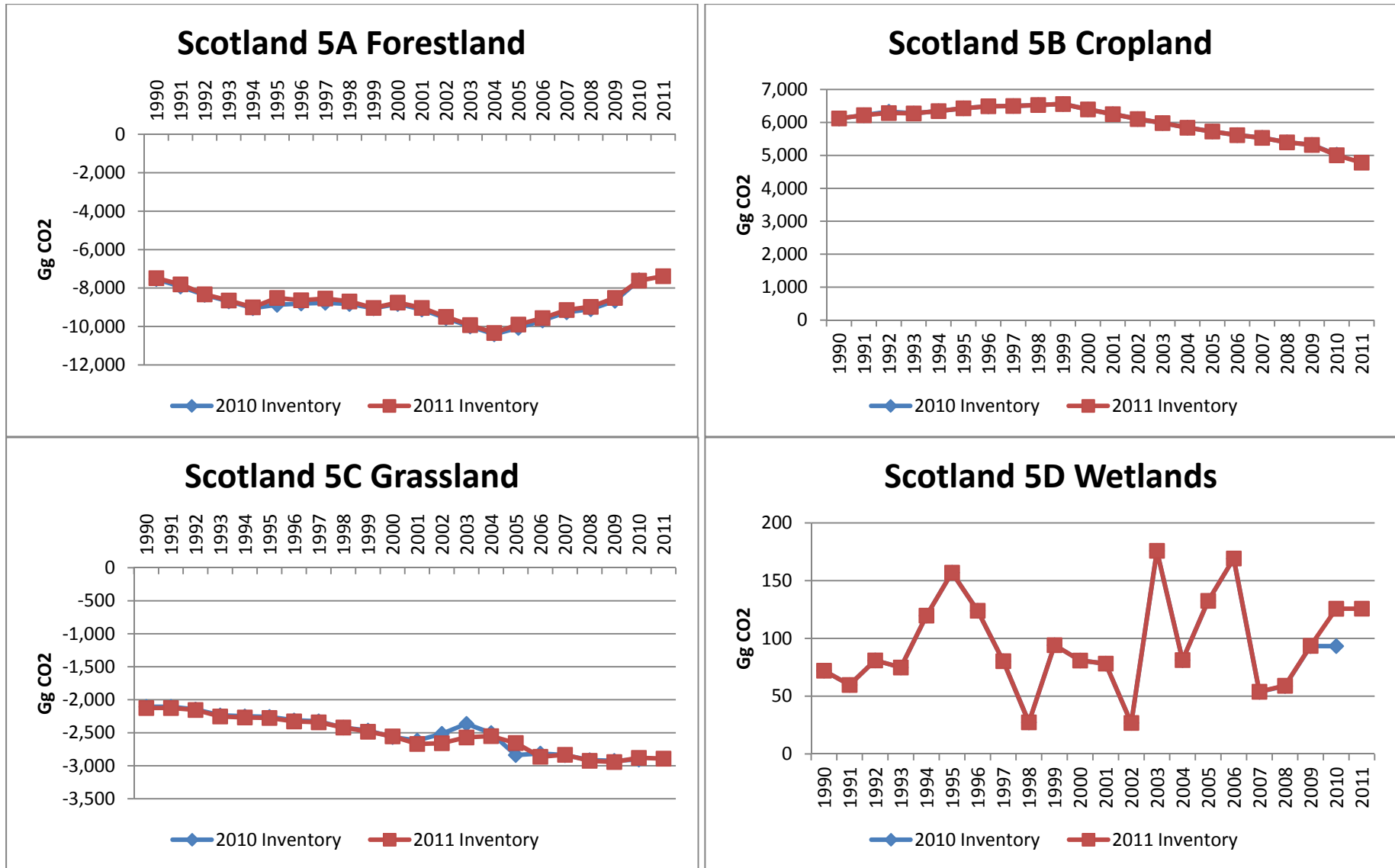


Figure 6A: Differences in net CO<sub>2</sub> emissions / removals by category in Scotland between the 2010 and 2011 Inventories

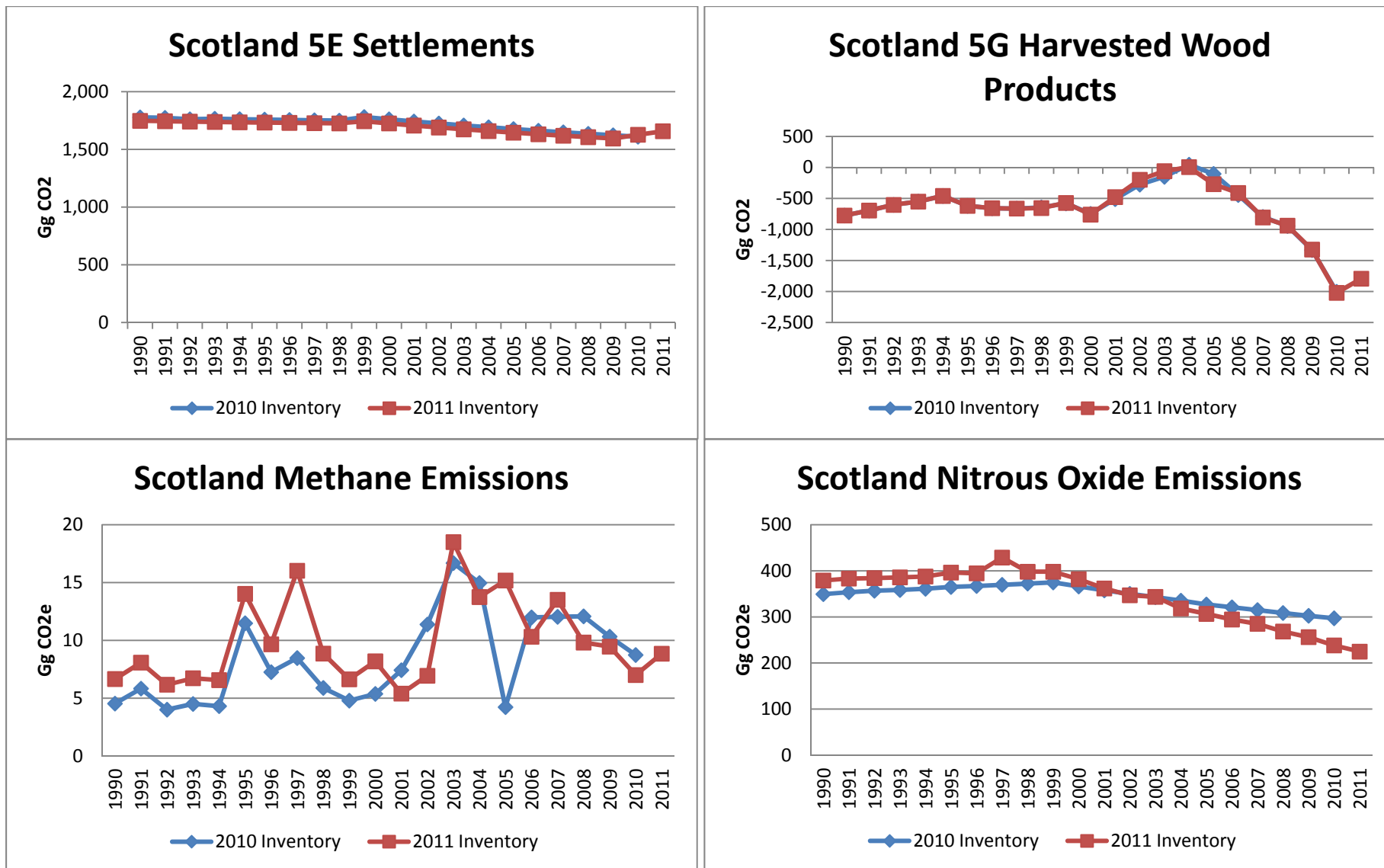


Figure 6B: Differences in net CO<sub>2</sub> emissions /removals and emissions of non-CO<sub>2</sub> gases by category in Scotland between the 2010 and 2011 Inventories

## LULUCF Emissions and Removals in Wales

Over the inventory reporting period, Wales is generally a small net sink of greenhouse gases from LULUCF activities (Figure 7). However, it was a small net source between 1995 and 2000, and has become a net source again in 2010 and 2011 (0.141 Mt CO<sub>2</sub>e). The Cropland net source (0.916 Mt CO<sub>2</sub>e in 2011) is the largest contributor to the LULUCF sector in Wales, as the size of the Forest Land sink has diminished in recent years.

Compared to the 1990-2010 Inventory, net emissions of greenhouse gases in the 1990-2011 inventory in 1990 have increased (reduced sink) by 0.018 Mt CO<sub>2</sub>e, an increase of 53%. Emissions in 2010 increased by 0.193 Mt CO<sub>2</sub>e, equivalent to a 464% increase. Note that as Wales alternates between a small source and a small sink, changes in emissions / removals expressed as a percentage can give misleadingly high values. These differences were due to improvements in activity data (Table 3). Differences between the 2010 and 2011 inventories in each category are presented in Figure 9A & Figure 9B.

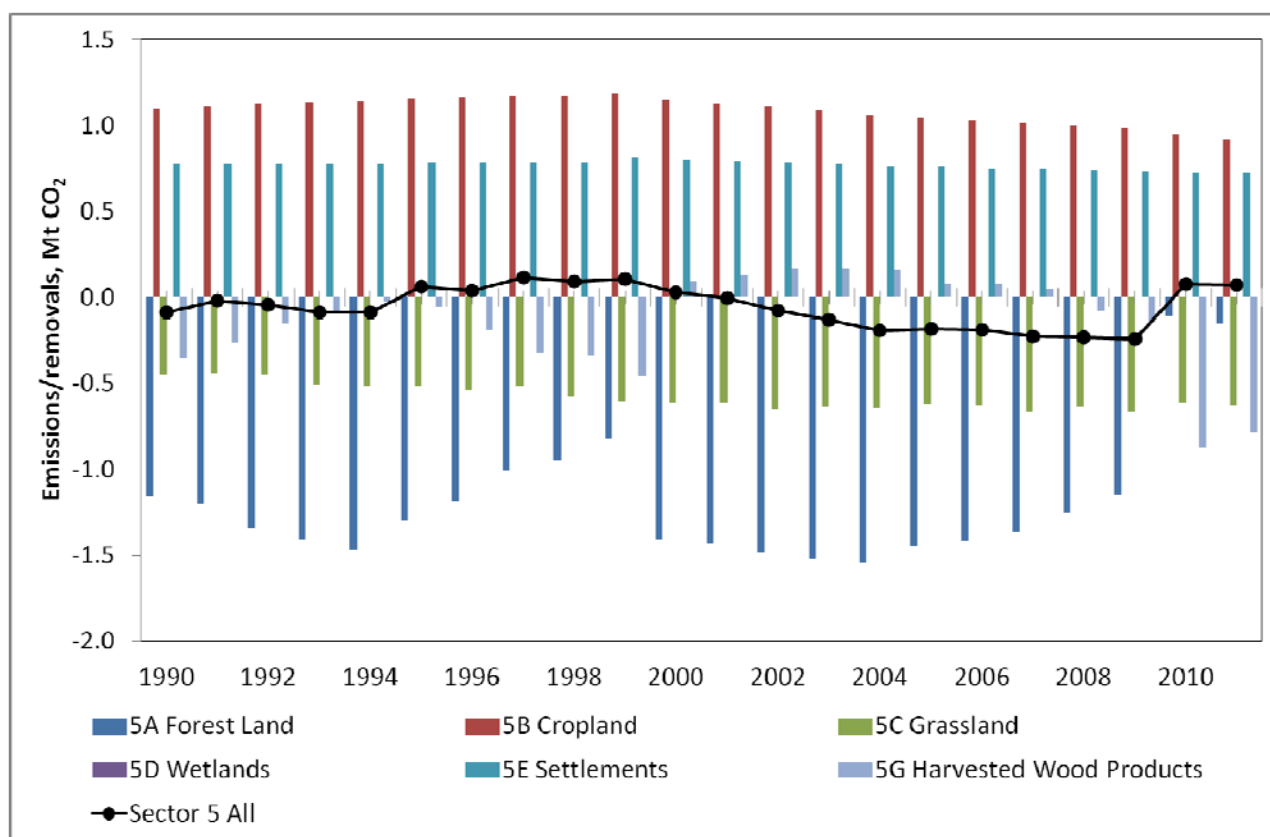


Figure 7: Net CO<sub>2</sub> emissions and removals by category for the LULUCF sector in Wales 1990-2011

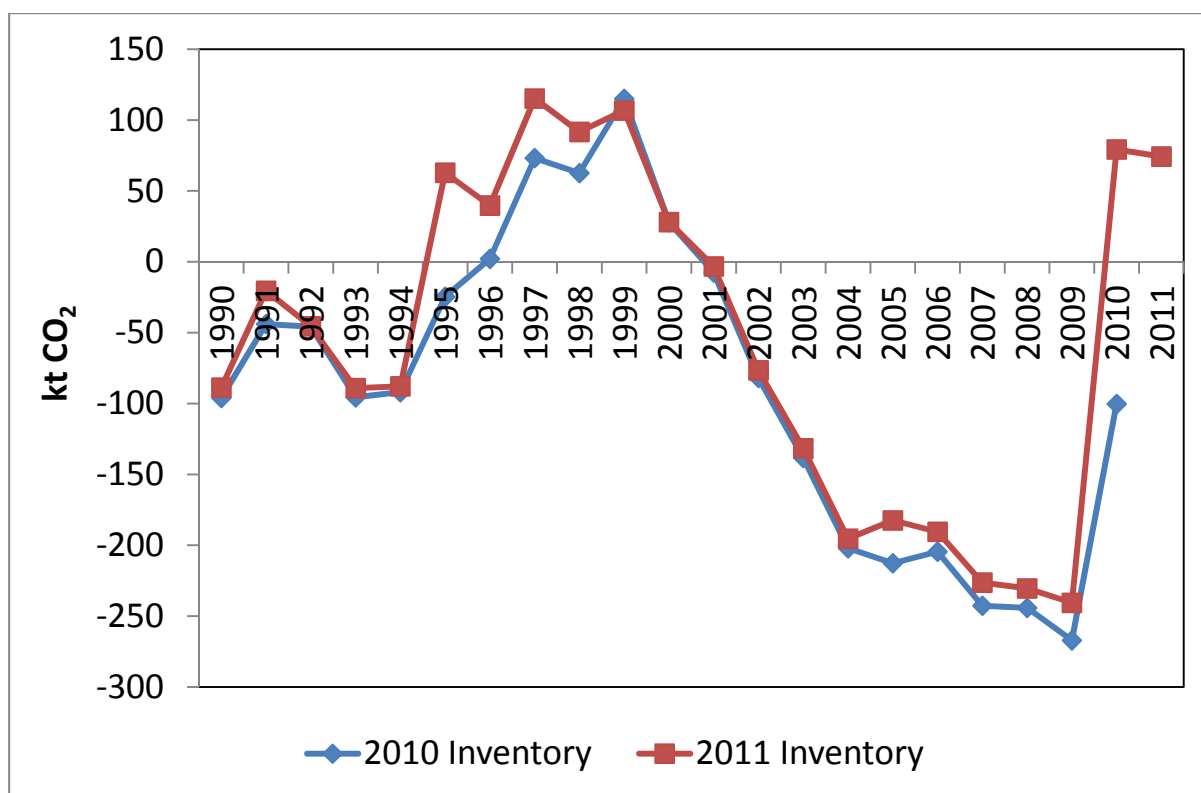


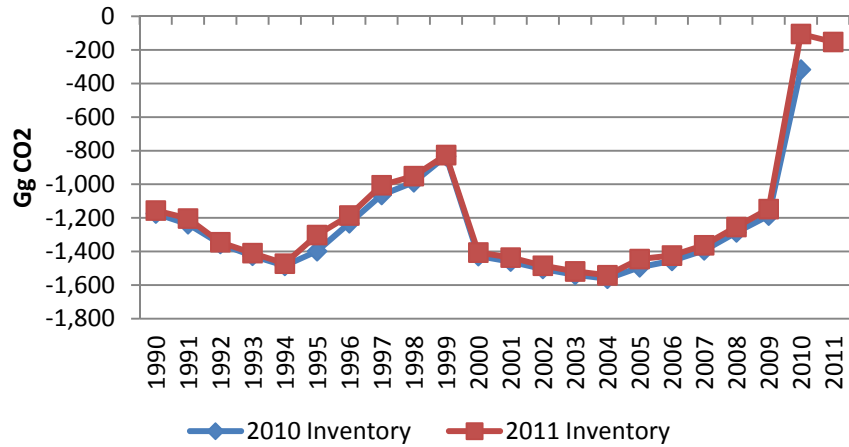
Figure 8: Changes in net CO<sub>2</sub> emissions/removals 1990-2009 between the 2010 and 2011 inventories in Wales

Table 3 : Improvements in the source data and/or methodology and their effects on Inventory data for Wales

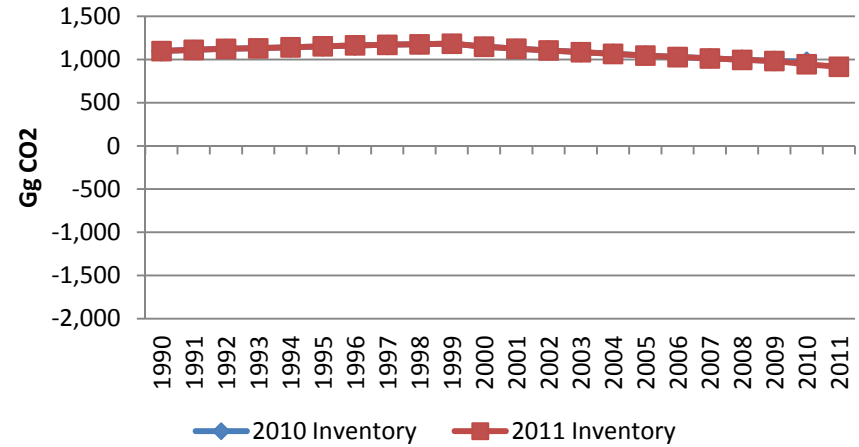
IPCC Sector	Method and data revisions	Difference between 2011 and 2010 inventory estimates, kt CO <sub>2</sub> e	
		1990	2010
5A Forest Land	Adjustments take account of new wildfires activity data and inclusion of DOM in biomass burning	17.98	211.69
5B Cropland	Biomass and DOM losses following deforestation are now estimated from country-specific biomass densities. Also there is a correction of error in 2010 inventory (Settlements converted to Cropland)	0.00	-28.86
5C Grassland	New activity data for Forest Land converted to Grassland. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities.	-3.60	-5.03
5D Wetlands	No change	0.00	0.00
5E Settlements	Revised activity data for Forest Land converted to Settlements. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities	-7.15	1.85
5G Harvested Wood Products	Revised deforestation activity data changes the pool of harvested wood products.	0.00	-0.17



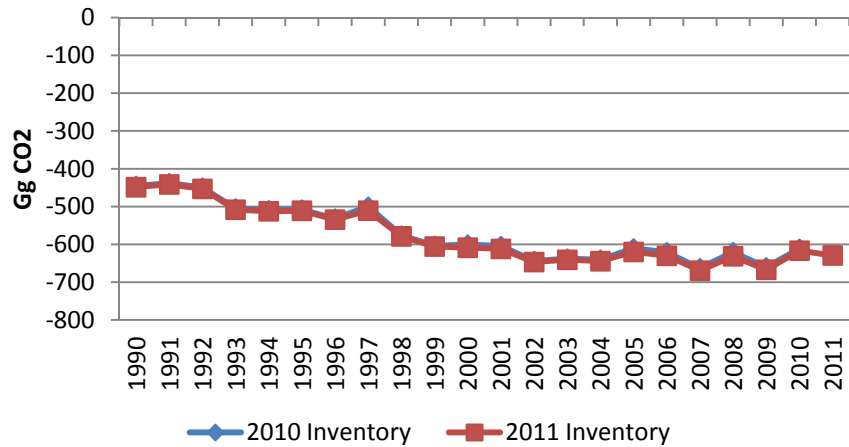
### Wales 5A Forestland



### Wales 5B Cropland



### Wales 5C Grassland



### Wales 5D Wetlands

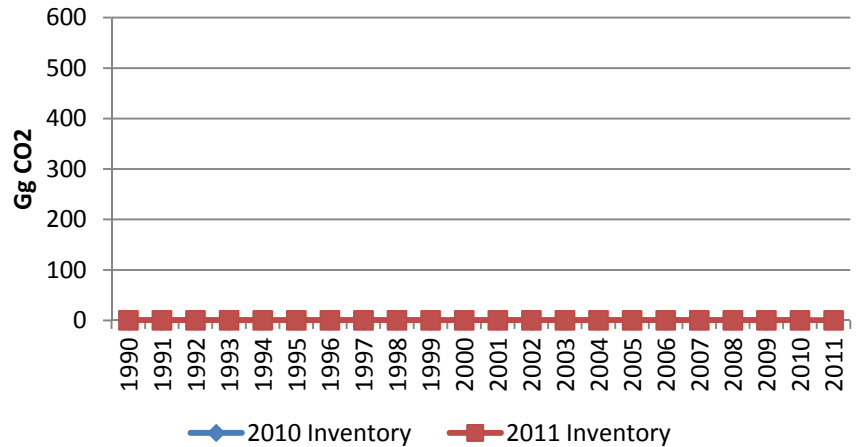


Figure 9A: Differences in net CO<sub>2</sub> emissions /removals by category in Wales between the 2010 and 2011 Inventories

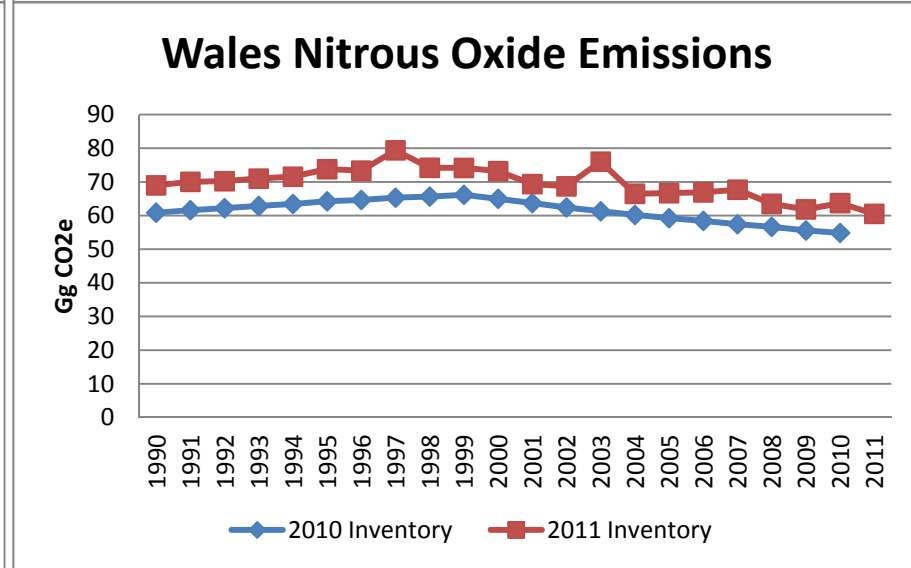
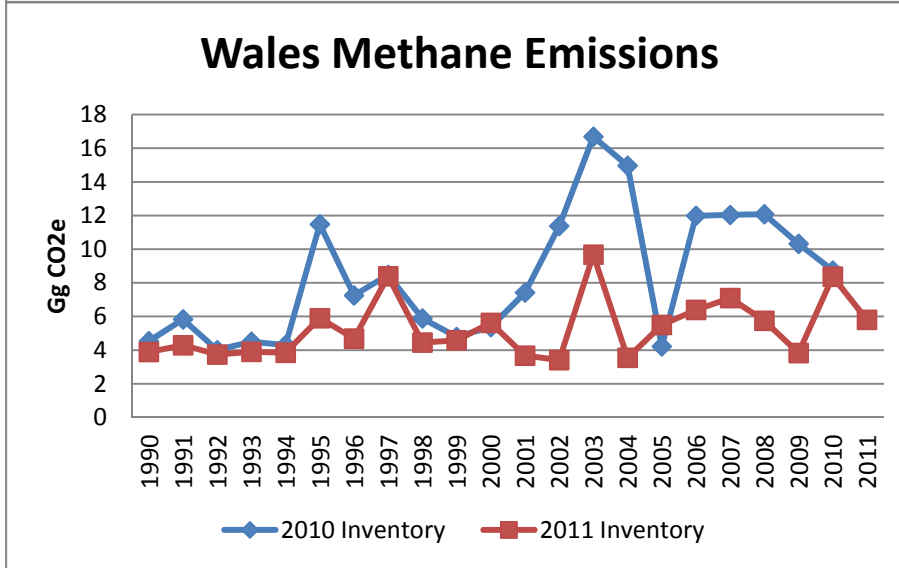
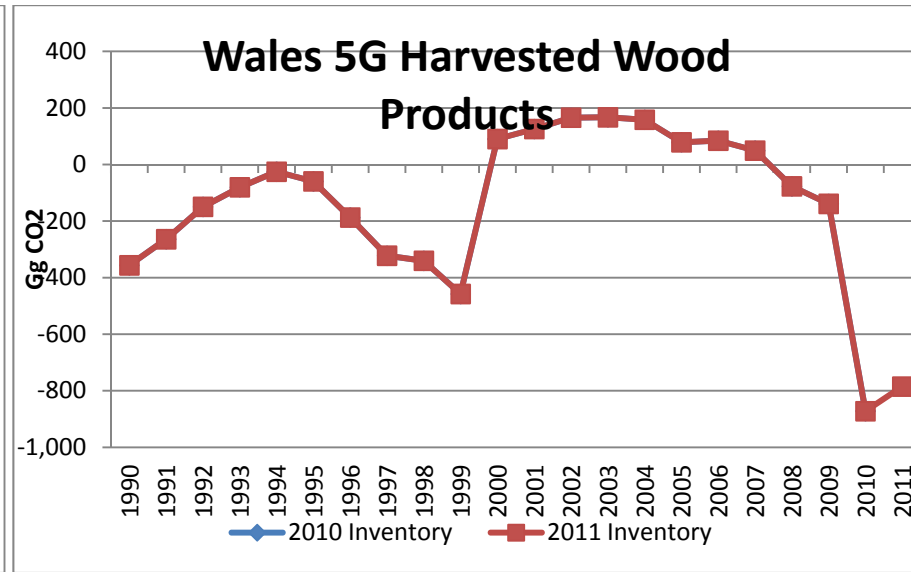
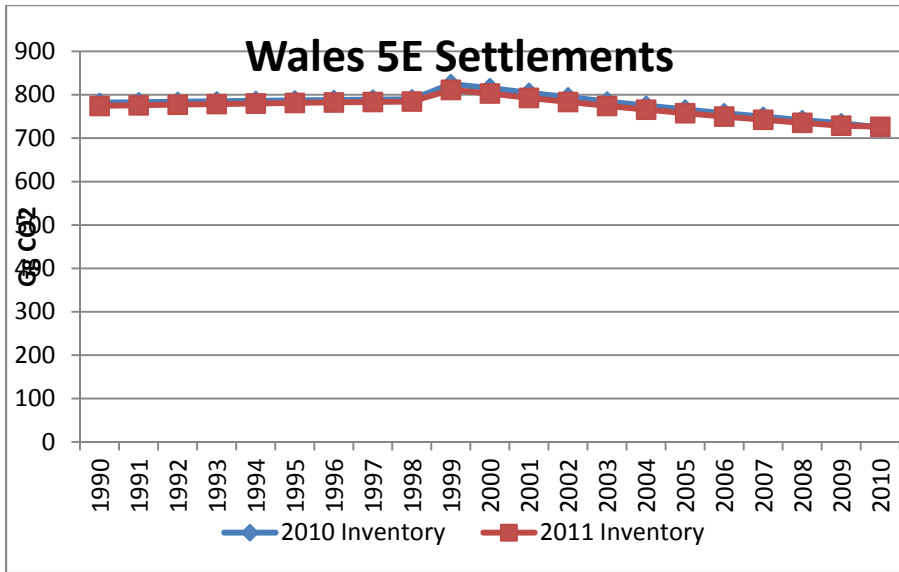


Figure 9B: Differences in net CO<sub>2</sub> emissions / removals and emissions of non-CO<sub>2</sub> gases by category in Wales between the 2010 and 2011 Inventories

## LULUCF Emissions and Removals in Northern Ireland

Northern Ireland was a small net source of greenhouse gases from LULUCF activities in 1990 of 0.098 Mt CO<sub>2</sub>e, becoming a small net sink between 1992 and 2004 (reaching -0.155 Mt CO<sub>2</sub>e in 1998), and has now returned to being a small net source (Figure 10) of 0.180 Mt CO<sub>2</sub>e in 2011. The Cropland net source (0.937 Mt CO<sub>2</sub>e in 2011) and the Grassland net sink (-1.181 Mt CO<sub>2</sub>e in 2011) are the largest contributors to the LULUCF sector in Northern Ireland.

Compared to the 1990-2010 Inventory, net emissions of greenhouse gases in the 1990-2011 inventory in 1990 have increased by 0.044 Mt CO<sub>2</sub>e, an increase of 80%. Emissions in 2010 increased by 0.036 Mt CO<sub>2</sub>e, equivalent to 34%. Note that as Northern Ireland alternates between a small source and a small sink, changes in emissions / removals expressed as a percentage can give misleadingly high values. These differences were due to improvements in activity data (Table 4). Differences between the 2010 and 2011 inventories in each category are presented in Figure 12A & Figure 12B.

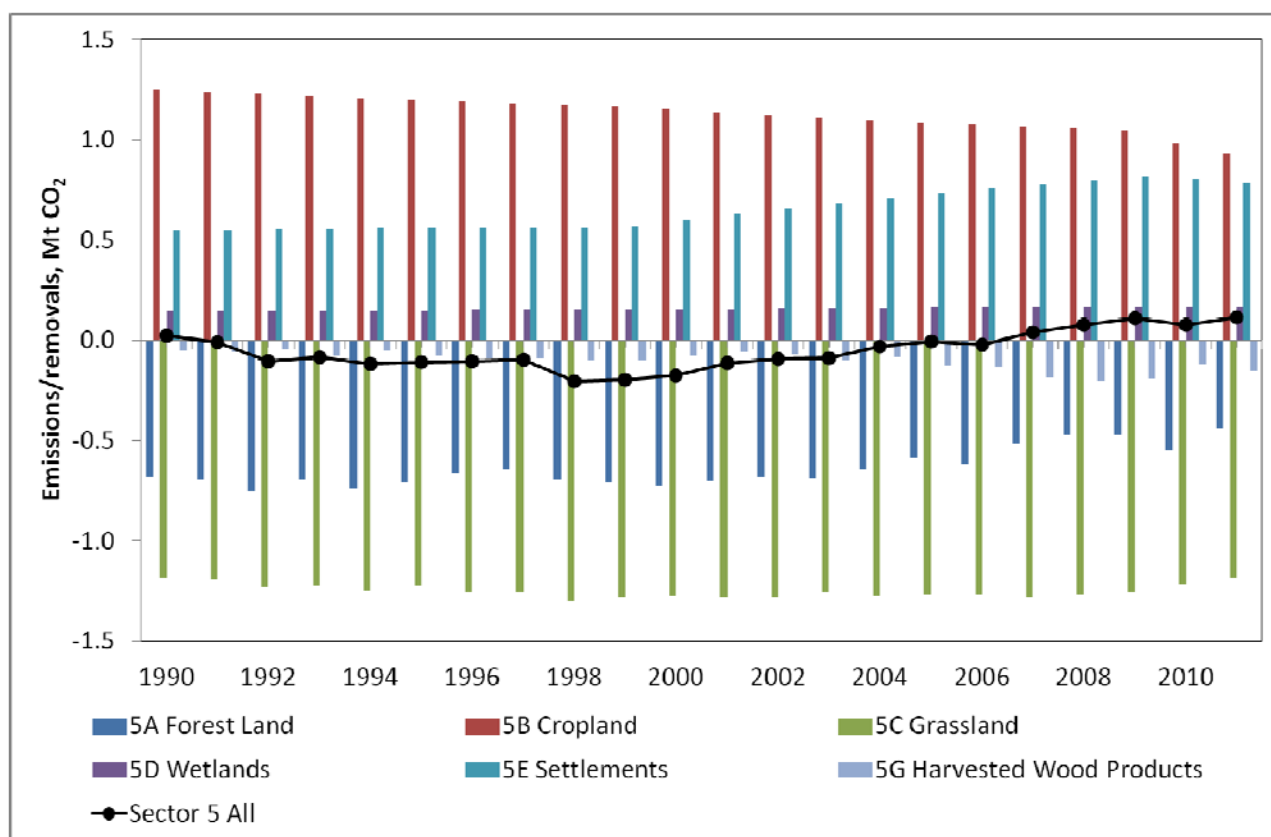


Figure 10: Net CO<sub>2</sub> emissions and removals by category for the LULUCF sector in Northern Ireland 1990-2011

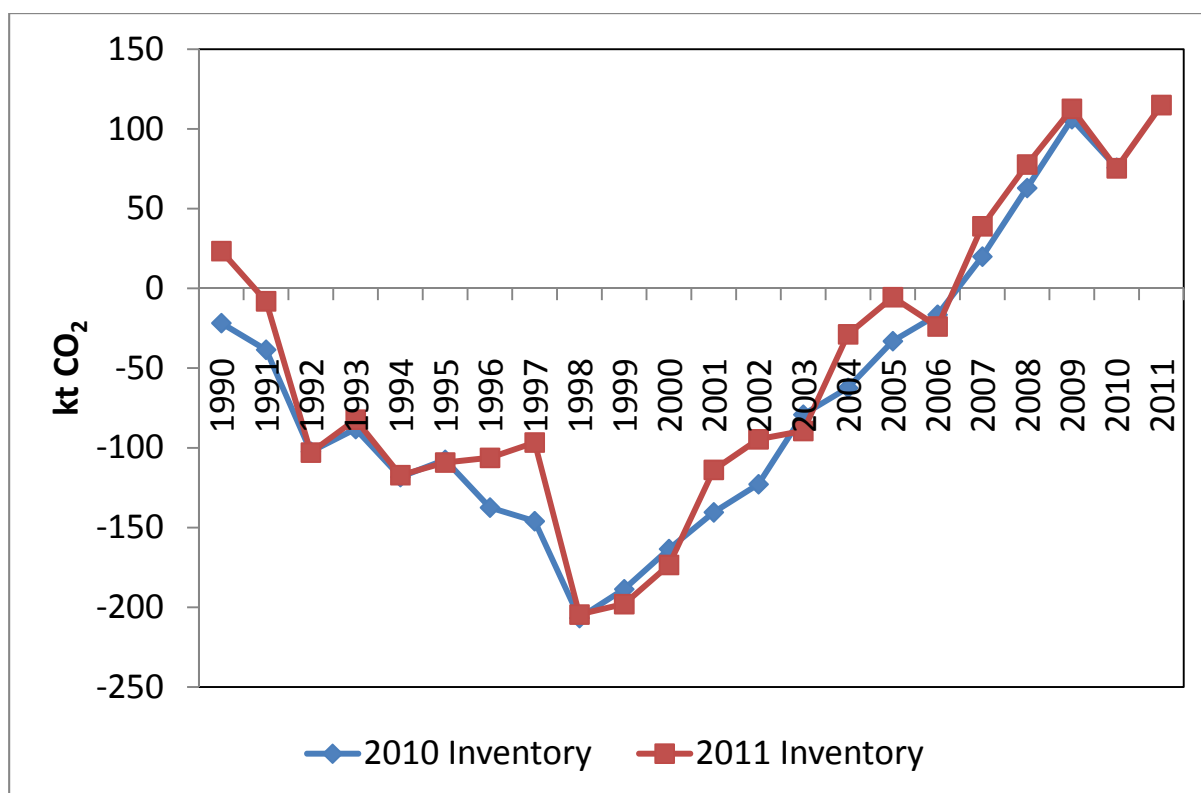


Figure 11: Changes in net CO<sub>2</sub> emissions/removals 1990-2009 between the 2010 and 2011 inventories in Northern Ireland

Table 4: Improvements in the source data and/or methodology and their effects on Inventory data for Northern Ireland

IPCC Sector	Method and data revisions	Difference between 2011 and 2010 inventory estimates, kt CO <sub>2</sub> e	
		1990	2010
5A Forest Land	Adjustments take account of new wildfires activity data and inclusion of DOM in biomass burning	49.58	0.00
5B Cropland	Biomass and DOM losses following deforestation are now estimated from country-specific biomass densities. Also there is a correction of error in 2010 inventory (Settlements converted to Cropland)	-0.02	0.00
5C Grassland	New activity data for Forest Land converted to Grassland. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities.	-0.61	1.36
5D Wetlands	No change	0.00	0.00
5E Settlements	Revised activity data for Forest Land converted to Settlements. Biomass and DOM losses following deforestation are now estimated using country-specific biomass densities	-3.84	-1.72
5G Harvested Wood Products	No change..	0.00	0.00

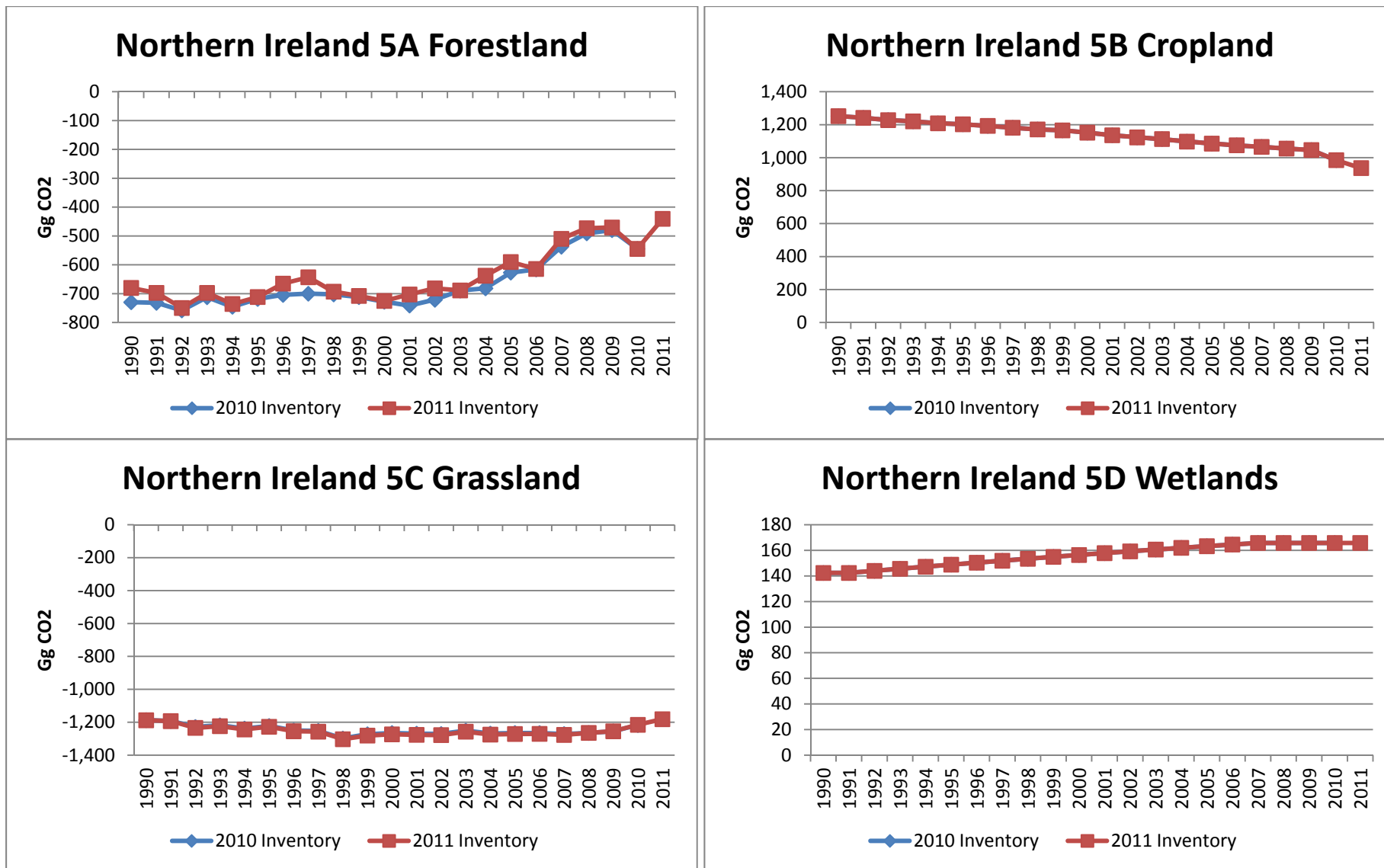


Figure 12A: Differences in net CO<sub>2</sub> emissions / removals and emissions of non-CO<sub>2</sub> gases by category in Northern Ireland between the 2010 and 2011 Inventories

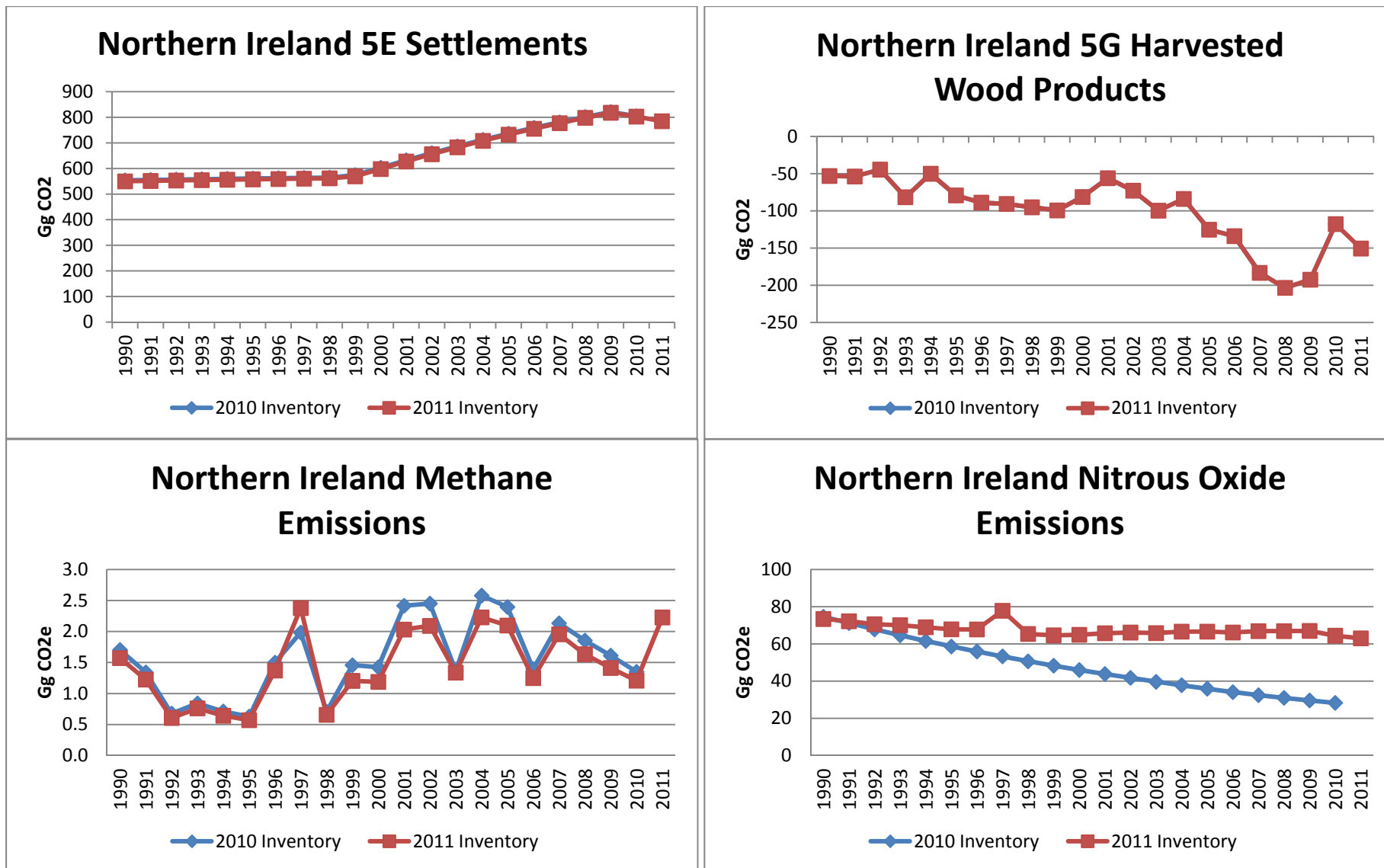


Figure 12B: Differences in net CO<sub>2</sub> emissions /removals and emissions of non-CO<sub>2</sub> gases by category in Northern Ireland between the 2010 and 2011 Inventories

## Appendix 1: LULUCF Summary Tables

### England 1990

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	kt			
A. Forest Land	-2647.49	0.07	0.04	-2633.46
B. Cropland	7277.40	0.01	0.99	7583.80
C. Grassland	-2540.39	0.26	0.02	-2529.37
D. Wetlands	266.88			266.88
E. Settlements	3843.60	0.23	0.00	3848.90
F. Other Land				
G. Other activities (Harvested Wood Products)	-525.44			-525.44
Total	5674.56	0.57	1.05	6011.31

### England 1995

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	kt			
A. Forest Land	-2327.00	0.43	0.06	-2298.43
B. Cropland	7064.96	0.01	0.98	7368.10
C. Grassland	-2815.70	0.26	0.02	-2804.64
D. Wetlands	374.89			374.89
E. Settlements	3575.58	0.15	0.00	3579.15
F. Other Land				
G. Other activities (Harvested Wood Products)	-319.74			-319.74
Total	5552.99	0.86	1.06	5899.34

### England 2000

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	kt			
A. Forest Land	-2626.14	0.08	0.05	-2610.41
B. Cropland	6385.55	0.01	0.95	6680.22
C. Grassland	-3304.69	0.45	0.02	-3289.28
D. Wetlands	299.32			299.32
E. Settlements	3419.43	0.21	0.00	3424.39
F. Other Land				
G. Other activities (Harvested Wood Products)	-540.18			-540.18
Total	3633.29	0.77	1.02	3964.06

### England 2005

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-3185.57	0.16	0.05	-3166.85
B. Cropland	5698.43	0.01	0.86	5964.77
C. Grassland	-3706.44	0.40	0.01	-3693.66
D. Wetlands	221.41			221.41
E. Settlements	3193.51	0.18	0.00	3197.66
F. Other Land				
G. Other activities (Harvested Wood Products)	-4.14			-4.14
Total	2217.20	0.75	0.92	2519.19

### England 2010

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-2147.06	0.01	0.04	-2134.07
B. Cropland	4972.89	0.01	0.76	5208.96
C. Grassland	-3762.83	0.27	0.01	-3755.35
D. Wetlands	110.69			110.69
E. Settlements	3059.53	0.09	0.00	3061.69
F. Other Land				
G. Other activities (Harvested Wood Products)	-850.93			-850.93
Total	1382.30	0.38	0.81	1641.00

### England 2011

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-2207.20	0.04	0.04	-2193.23
B. Cropland	4792.44	0.01	0.72	5017.11
C. Grassland	-3665.32	0.40	0.02	-3652.03
D. Wetlands	110.69			110.69
E. Settlements	3119.79	0.11	0.00	3122.32
F. Other Land				
G. Other activities (Harvested Wood Products)	-671.61			-671.61
Total	1478.79	0.55	0.78	1733.25



### Scotland 1990

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-7481.13	0.06	0.10	-7450.35
B. Cropland	6121.41		1.11	6465.22
C. Grassland	-2124.73	0.21	0.02	-2115.30
D. Wetlands	72.10		0.00	72.60
E. Settlements	1747.48	0.05	0.00	1748.65
F. Other Land				
G. Other activities (Harvested Wood Products)	-775.68			-775.68
Total	-2440.55	0.32	1.22	-2054.85

### Scotland 1995

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-8514.50	0.40	0.11	-8471.05
B. Cropland	6429.37		1.15	6785.11
C. Grassland	-2275.04	0.21	0.02	-2265.52
D. Wetlands	157.02		0.00	157.39
E. Settlements	1732.62	0.06	0.00	1733.94
F. Other Land				
G. Other activities (Harvested Wood Products)	-618.75			-618.75
Total	-3089.28	0.67	1.28	-2678.88

### Scotland 2000

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
H. Forest Land	-8754.59	0.08	0.10	-8722.14
I. Cropland	6396.31	0.00	1.12	6742.05
J. Grassland	-2553.89	0.21	0.02	-2544.43
K. Wetlands	80.92			81.15
L. Settlements	1725.05	0.10	0.00	1727.30
M. Other Land				
N. Other activities (Harvested Wood Products)	-760.57			-760.57
Total	-3866.77	0.39	1.23	-3476.64

### Scotland 2005

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
H. Forest Land	-9897.18	0.17	0.10	-9861.30
I. Cropland	5724.97	0.00	0.87	5994.66
J. Grassland	-2655.09	0.45	0.01	-2641.53
K. Wetlands	132.58			132.77
L. Settlements	1645.08	0.11	0.00	1647.58
M. Other Land				
N. Other activities (Harvested Wood Products)	-270.63			-270.63
Total	-5320.27	0.72	0.99	-4998.45

### Scotland 2010

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-7610.15	0.01	0.10	-7580.12
B. Cropland	5004.96		0.66	5209.98
C. Grassland	-2879.81	0.20	0.01	-2872.60
D. Wetlands	125.76		0.00	125.96
E. Settlements	1626.76	0.12	0.00	1629.50
F. Other Land				
G. Other activities (Harvested Wood Products)	-2021.92			-2021.92
Total	-5754.40	0.33	0.77	-5509.20

### Scotland 2011

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-7382.12	0.13	0.10	-7347.57
B. Cropland	4779.99		0.61	4969.66
C. Grassland	-2891.90	0.17	0.01	-2885.43
D. Wetlands	125.81		0.00	126.02
E. Settlements	1657.70	0.12	0.00	1660.47
F. Other Land				
G. Other activities (Harvested Wood Products)	-1793.14			-1793.14
Total	-5503.65	0.42	0.73	-5269.99

### Wales 1990

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-1156.23	0.02	0.01	-1151.31
B. Cropland	1097.69		0.20	1158.35
C. Grassland	-448.69	0.14	0.01	-441.94
D. Wetlands	0.35			0.35
E. Settlements	774.42	0.02	0.00	774.98
F. Other Land				
G. Other activities (Harvested Wood Products)	-356.33			-356.33
Total	-88.78	0.19	0.22	-15.88

### Wales 1995

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-1301.99	0.11	0.02	-1293.52
B. Cropland	1153.87		0.21	1217.72
C. Grassland	-510.96	0.14	0.01	-504.19
D. Wetlands	0.35			0.35
E. Settlements	781.28	0.03	0.00	781.90
F. Other Land				
G. Other activities (Harvested Wood Products)	-59.71			-59.71
Total	62.85	0.28	0.24	142.54

### Wales 2000

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
O. Forest Land	-1406.00	0.02	0.02	-1400.80
P. Cropland	1149.22		0.21	1213.77
Q. Grassland	-608.85	0.17	0.01	-601.40
R. Wetlands	0.35			0.35
S. Settlements	803.08	0.07	0.00	804.73
T. Other Land				
U. Other activities (Harvested Wood Products)	90.20			90.20
Total	28.00	0.27	0.24	106.85

### Wales 2005

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
O. Forest Land	-1444.87	0.04	0.02	-1438.92
P. Cropland	1045.87		0.19	1104.68
Q. Grassland	-619.97	0.14	0.01	-614.35
R. Wetlands	0.35			0.35
S. Settlements	757.66	0.08	0.00	759.46
T. Other Land				
U. Other activities (Harvested Wood Products)	78.53			78.53
Total	-182.43	0.26	0.22	-110.25

### Wales 2010

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-104.92	0.20	0.03	-92.69
B. Cropland	946.05		0.17	999.48
C. Grassland	-616.63	0.11	0.01	-612.12
D. Wetlands	0.35			0.35
E. Settlements	726.49	0.08	0.00	728.40
F. Other Land				
G. Other activities (Harvested Wood Products)	-872.10			-872.10
Total	79.25	0.40	0.21	151.33

### Wales 2011

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-152.38	0.12	0.02	-143.37
B. Cropland	916.52		0.17	968.31
C. Grassland	-629.48	0.08	0.01	-625.86
D. Wetlands	0.35			0.35
E. Settlements	724.31	0.08	0.00	726.21
F. Other Land				
G. Other activities (Harvested Wood Products)	-785.07			-785.07
Total	74.26	0.28	0.20	140.58

### Northern Ireland 1990

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-680.10	0.06	0.03	-668.32
B. Cropland	1252.17		0.19	1311.34
C. Grassland	-1187.78	0.01	0.00	-1187.53
D. Wetlands	142.39		0.01	145.87
E. Settlements	549.80	0.01	0.00	550.08
F. Other Land				
G. Other activities (Harvested Wood Products)	-53.11			-53.11
Total	23.37	0.07	0.24	98.33

### Northern Ireland 1995

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-711.75	0.01	0.03	-701.30
B. Cropland	1202.46		0.18	1257.18
C. Grassland	-1227.25	0.01	0.00	-1226.99
D. Wetlands	148.84		0.01	151.53
E. Settlements	557.74	0.01	0.00	558.04
F. Other Land				
G. Other activities (Harvested Wood Products)	-79.23			-79.23
Total	-109.20	0.03	0.22	-40.79

### Northern Ireland 2000

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-725.27	0.00	0.03	-714.53
B. Cropland	1151.89		0.17	1204.20
C. Grassland	-1273.32	0.03	0.00	-1272.56
D. Wetlands	156.43		0.01	158.12
E. Settlements	598.15	0.03	0.00	598.73
F. Other Land				
G. Other activities (Harvested Wood Products)	-81.31			-81.31
Total	-173.43	0.06	0.21	-107.35

### Northern Ireland 2005

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-590.13	0.04	0.04	-577.65
B. Cropland	1085.32		0.17	1139.49
C. Grassland	-1271.23	0.03	0.00	-1270.49
D. Wetlands	163.31		0.00	164.00
E. Settlements	732.43	0.03	0.00	733.05
F. Other Land				
G. Other activities (Harvested Wood Products)	-125.23			-125.23
Total	-5.53	0.10	0.21	63.17

### Northern Ireland 2010

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-544.76	0.00	0.04	-533.78
B. Cropland	984.88		0.17	1037.83
C. Grassland	-1215.52	0.03	0.00	-1214.78
D. Wetlands	165.82		0.00	166.12
E. Settlements	802.74	0.03	0.00	803.40
F. Other Land				
G. Other activities (Harvested Wood Products)	-117.80			-117.80
Total	75.36	0.06	0.21	140.99

### Northern Ireland 2011

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-440.60	0.05	0.04	-427.76
B. Cropland	936.72		0.16	987.40
C. Grassland	-1181.26	0.03	0.00	-1180.52
D. Wetlands	165.82		0.00	166.12
E. Settlements	784.91	0.03	0.00	785.57
F. Other Land				
G. Other activities (Harvested Wood Products)	-150.59			-150.59
Total	115.00	0.11	0.20	180.21

### United Kingdom 1990

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-11964.95	0.20	0.18	-11903.43
B. Cropland	15748.67	0.01	2.48	16518.71
C. Grassland	-6301.59	0.62	0.05	-6274.14
D. Wetlands	481.72		0.01	485.71
E. Settlements	6915.30	0.32	0.00	6922.61
F. Other Land				
G. Other activities (Harvested Wood Products)	-1710.55			-1710.56
Total	3168.61	1.15	2.73	4038.91

### United Kingdom 1995

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-12855.24	0.95	0.23	-12764.31
B. Cropland	15850.66	0.01	2.51	16628.11
C. Grassland	-6828.96	0.63	0.05	-6801.35
D. Wetlands	681.11		0.01	684.16
E. Settlements	6647.22	0.25	0.00	6653.03
F. Other Land				
G. Other activities (Harvested Wood Products)	-1077.43			-1077.43
Total	2417.36	1.83	2.79	3322.21

### United Kingdom 2000

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-13512.00	0.18	0.20	-13447.88
B. Cropland	15082.97	0.01	2.45	15840.24
C. Grassland	-7740.75	0.86	0.05	-7707.67
D. Wetlands	537.02		0.01	538.94
E. Settlements	6545.71	0.41	0.00	6555.15
F. Other Land				
G. Other activities (Harvested Wood Products)	-1291.86			-1291.86
Total	-378.91	1.48	2.69	486.92

### United Kingdom 2005

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-15117.75	0.41	0.21	-15044.72
B. Cropland	13554.59	0.01	2.09	14203.60
C. Grassland	-8252.73	1.02	0.03	-8220.03
D. Wetlands	517.65		0.00	518.53
E. Settlements	6328.68	0.40	0.00	6337.75
F. Other Land				
G. Other activities (Harvested Wood Products)	-321.47			-321.47
Total	-3291.03	1.84	2.34	-2526.34

### United Kingdom 2010

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-10406.89	0.23	0.20	-10340.66
B. Cropland	11908.78		1.77	12456.26
C. Grassland	-8474.79	0.61	0.02	-8454.85
D. Wetlands	402.63		0.00	403.12
E. Settlements	6215.53	0.32	0.00	6222.98
F. Other Land				
G. Other activities (Harvested Wood Products)	-3862.75			-3862.75
Total	-4217.49	1.17	1.99	-3575.89

### United Kingdom 2011

Greenhouse gas source and sink categories	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Kt			
A. Forest Land	-10182.29	0.33	0.20	-10111.93
B. Cropland	11425.68		1.67	11942.48
C. Grassland	-8367.96	0.67	0.03	-8343.84
D. Wetlands	402.68		0.00	403.18
E. Settlements	6286.71	0.34	0.00	6294.58
F. Other Land				
G. Other activities (Harvested Wood Products)	-3400.41			-3400.41
Total	-3835.60	1.36	1.91	-3215.94



## Appendix 2: Kyoto Protocol LULUCF Summary Tables

### England

Activity		2008	2009	2010	2011
<b>3.3 Afforestation &amp; Reforestation</b>	Area, kha	82.83	84.85	87.25	89.84
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-867.97	-897.77	-922.82	-941.54
	GHG emissions from biomass burning, kt CO <sub>2</sub> e.	13.28	13.71	0.83	3.17
	N <sub>2</sub> O emissions from N fertilization, kt CO <sub>2</sub> e	0.42	0.32	0.28	0.28
<b>3.3 Deforestation</b>	Area, kha	13.76	14.80	15.38	16.01
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	196.83	257.73	165.00	183.48
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	107.10	145.78	81.25	90.19
	N <sub>2</sub> O emissions from LUC to cropland, kt CO <sub>2</sub> e	0.08	0.09	0.09	0.09
	CO <sub>2</sub> emissions from lime application, kt CO <sub>2</sub>	0.03	0.04	0.03	0.04
<b>3.4 Forest Management</b>	Area, kha	316.17	315.13	314.56	313.92
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-1775.17	-1478.68	-1209.70	-1274.36
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	45.20	44.93	7.95	13.93

## Scotland

Activity		2008	2009	2010	2011
<b>3.3 Afforestation &amp; Reforestation</b>	Area, kha	177.25	180.15	184.66	192.70
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-1594.48	-1676.94	-1785.73	-1854.88
	GHG emissions from biomass burning, kt CO <sub>2</sub> e.	12.11	12.51	0.94	9.83
	N <sub>2</sub> O emissions from N fertilization, kt CO <sub>2</sub> e	0.77	0.58	0.72	0.68
<b>3.3 Deforestation</b>	Area, kha	6.95	7.34	7.76	8.12
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	98.40	104.12	124.22	123.17
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	48.05	50.90	56.32	48.15
	N <sub>2</sub> O emissions from LUC to cropland, kt CO <sub>2</sub> e	NO	NO	NO	NO
	CO <sub>2</sub> emissions from lime application, kt CO <sub>2</sub>	NO	NO	NO	NO
<b>3.4 Forest Management</b>	Area, kha	838.82	838.43	838.01	837.65
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-7506.90	-6964.25	-5754.95	-5558.01
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	67.21	67.72	23.01	53.91

## Wales

Activity		2008	2009	2010	2011
<b>3.3 Afforestation &amp; Reforestation</b>	Area, kha	9.20	9.41	9.69	10.32
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-93.60	-99.55	-105.13	-109.04
	GHG emissions from biomass burning, kt CO <sub>2</sub> e.	0.89	0.92	4.15	2.58
	N <sub>2</sub> O emissions from N fertilization, kt CO <sub>2</sub> e	0.04	0.04	0.04	0.03
<b>3.3 Deforestation</b>	Area, kha	2.62	2.75	2.95	3.09
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	63.43	37.47	54.57	42.63
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	38.85	21.51	31.09	21.57
	N <sub>2</sub> O emissions from LUC to cropland, kt CO <sub>2</sub> e	NO	NO	NO	NO
	CO <sub>2</sub> emissions from lime application, kt CO <sub>2</sub>	NO	NO	NO	NO
<b>3.4 Forest Management</b>	Area, kha	150.58	150.44	150.24	150.10
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-1208.13	-1096.23	-218.25	-168.89
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	17.11	17.26	66.29	39.63

## Northern Ireland

Activity		2008	2009	2010	2011
<b>3.3 Afforestation &amp; Reforestation</b>	Area, kha	14.58	14.81	15.05	15.35
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-142.98	-153.83	-165.19	-174.53
	GHG emissions from biomass burning, kt CO <sub>2</sub> e.	1.51	0.80	NO	3.60
	N <sub>2</sub> O emissions from N fertilization, kt CO <sub>2</sub> e	0.07	0.07	0.05	0.06
<b>3.3 Deforestation</b>	Area, kha	1.21	1.30	1.40	1.49
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	22.50	22.83	25.88	28.75
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	13.64	13.75	13.91	14.03
	N <sub>2</sub> O emissions from LUC to cropland, kt CO <sub>2</sub> e	NO	NO	NO	NO
	CO <sub>2</sub> emissions from lime application, kt CO <sub>2</sub>	NO	NO	NO	NO
<b>3.4 Forest Management</b>	Area, kha	65.09	65.00	64.90	64.81
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-345.19	-321.06	-372.67	-309.57
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	13.90	11.19	8.32	20.48

## United Kingdom

Activity		2008	2009	2010	2011
<b>3.3 Afforestation &amp; Reforestation</b>	Area, kha	283.86	289.22	296.64	308.21
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-2699.03	-2828.08	-2978.87	-3079.99
	GHG emissions from biomass burning, kt CO <sub>2</sub> e.	27.79	27.93	5.92	19.17
	N <sub>2</sub> O emissions from N fertilization, kt CO <sub>2</sub> e	1.30	1.01	1.09	1.05
<b>3.3 Deforestation</b>	Area, kha	24.54	26.20	27.49	28.71
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	381.16	422.14	369.67	378.02
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	207.64	231.95	182.56	173.93
	N <sub>2</sub> O emissions from LUC to cropland, kt CO <sub>2</sub> e	0.08	0.09	0.09	0.09
	CO <sub>2</sub> emissions from lime application, kt CO <sub>2</sub>	0.03	0.04	0.03	0.04
<b>3.4 Forest Management</b>	Area, kha	1370.65	1368.99	1367.71	1366.48
	Net CO <sub>2</sub> emissions/removals, kt CO <sub>2</sub>	-10835.39	-9860.22	-7555.57	-7310.82
	GHG emissions from biomass burning, kt CO <sub>2</sub> e	143.42	141.10	105.56	127.95

## Appendix 3: Land Use Change Matrices

The 1990-2011 UK National Inventory Report contains the annual land use change matrices at a UK level<sup>1</sup>, as requested by the 2011 UN Expert Review. For comparison, the annual land use change matrices for each Devolved Administration are presented below.

### England

#### England 1990 to 1991

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1211.437	1	2	0	1	0	1215
Cropland	0	4385	63	0	1	0	4449
Grassland	0	55	5814	0	3	0	5873
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1348	0	1359
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1212</b>	<b>4444</b>	<b>5888</b>	<b>21</b>	<b>1352</b>	<b>128</b>	<b>13045</b>

#### England 1991 to 1992

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1214.604	1	3	0	1	0	1219
Cropland	0	4390	63	0	1	0	4454
Grassland	0	55	5799	0	3	0	5858
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1354	0	1365
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1215</b>	<b>4449</b>	<b>5873</b>	<b>21</b>	<b>1359</b>	<b>128</b>	<b>13045</b>

#### England 1992 to 1993

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1218.965	1	2	0	1	0	1223
Cropland	0	4395	63	0	1	0	4459
Grassland	0	55	5784	0	3	0	5843
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1360	0	1371
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1219</b>	<b>4454</b>	<b>5858</b>	<b>21</b>	<b>1365</b>	<b>127</b>	<b>13044</b>

<sup>1</sup> For UK data see Table 7.1 at [http://naei.defra.gov.uk/reports/reports?report\\_id=747](http://naei.defra.gov.uk/reports/reports?report_id=747)

### England 1993 to 1994

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1222.905	1	3	0	1	0	1228
Cropland	0	4400	63	0	1	0	4464
Grassland	0	55	5768	0	3	0	5827
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1366	0	1377
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1223</b>	<b>4459</b>	<b>5843</b>	<b>21</b>	<b>1371</b>	<b>127</b>	<b>13044</b>

### England 1994 to 1995

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1227.812	1	4	0	1	0	1234
Cropland	0	4405	63	0	1	0	4469
Grassland	0	55	5752	0	3	0	5811
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1372	0	1383
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1228</b>	<b>4464</b>	<b>5827</b>	<b>21</b>	<b>1377</b>	<b>127</b>	<b>13045</b>

### England 1995 to 1996

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1233.950	1	3	0	1	0	1239
Cropland	0	4410	63	0	1	0	4474
Grassland	0	55	5736	0	3	0	5795
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1378	0	1389
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1234</b>	<b>4469</b>	<b>5811</b>	<b>21</b>	<b>1383</b>	<b>127</b>	<b>13045</b>

### England 1996 to 1997

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1238.623	1	3	0	1	0	1243
Cropland	0	4415	63	0	1	0	4479
Grassland	0	55	5721	0	3	0	5780
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1384	0	1395
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1239</b>	<b>4474</b>	<b>5795</b>	<b>21</b>	<b>1389</b>	<b>127</b>	<b>13045</b>

**England 1997 to 1998**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1242.648	1	3	0	1	0	1247
Cropland	0	4420	63	0	1	0	4484
Grassland	0	55	5706	0	3	0	5765
Wetland	0	0	0	21	0	0	21
Settlement	0	2	8	0	1390	0	1401
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1243</b>	<b>4479</b>	<b>5780</b>	<b>21</b>	<b>1395</b>	<b>127</b>	<b>13045</b>

**England 1998 to 1999**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1246.861	1	3	0	1	0	1251
Cropland	0	4425	63	0	1	0	4489
Grassland	0	55	5691	0	3	0	5750
Wetland	0	0	0	20	0	0	20
Settlement	0	2	8	0	1396	0	1407
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1247</b>	<b>4484</b>	<b>5765</b>	<b>21</b>	<b>1401</b>	<b>127</b>	<b>13045</b>

**England 1999 to 2000**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1250.102	1	3	0	1	0	1255
Cropland	0	4430	63	0	1	0	4494
Grassland	0	55	5675	0	3	0	5734
Wetland	0	0	0	20	0	0	20
Settlement	0	2	8	0	1402	0	1413
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1251</b>	<b>4489</b>	<b>5750</b>	<b>20</b>	<b>1407</b>	<b>127</b>	<b>13043</b>

**England 2000 to 2001**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1254.509	1	4	0	1	0	1260
Cropland	0	4415	35	0	0	0	4451
Grassland	1	73	5690	0	5	0	5768
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1408	0	1418
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1255</b>	<b>4494</b>	<b>5734</b>	<b>20</b>	<b>1413</b>	<b>127</b>	<b>13044</b>



### England 2001 to 2002

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1258.490	1	4	0	1	0	1264
Cropland	0	4372	35	0	0	0	4408
Grassland	1	73	5724	0	5	0	5802
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1413	0	1423
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1260</b>	<b>4451</b>	<b>5768</b>	<b>20</b>	<b>1418</b>	<b>127</b>	<b>13044</b>

### England 2002 to 2003

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1263.062	1	3	0	1	0	1268
Cropland	0	4329	35	0	0	0	4365
Grassland	1	73	5758	0	5	0	5836
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1418	0	1428
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1264</b>	<b>4408</b>	<b>5802</b>	<b>20</b>	<b>1423</b>	<b>127</b>	<b>13044</b>

### England 2003 to 2004

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1266.687	1	3	0	1	0	1272
Cropland	0	4286	35	0	0	0	4322
Grassland	1	73	5792	0	5	0	5870
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1423	0	1433
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1268</b>	<b>4365</b>	<b>5836</b>	<b>20</b>	<b>1428</b>	<b>127</b>	<b>13044</b>

### England 2004 to 2005

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1270.935	1	3	0	0	0	1275
Cropland	0	4243	35	0	0	0	4279
Grassland	0	73	5826	0	5	0	5904
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1428	0	1438
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1272</b>	<b>4322</b>	<b>5870</b>	<b>20</b>	<b>1433</b>	<b>127</b>	<b>13043</b>

**England 2005 to 2006**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1274.286	1	3	0	1	0	1279
Cropland	0	4200	35	0	0	0	4236
Grassland	1	73	5860	0	5	0	5938
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1433	0	1443
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1275</b>	<b>4279</b>	<b>5904</b>	<b>20</b>	<b>1438</b>	<b>127</b>	<b>13043</b>

**England 2006 to 2007**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1277.888	1	2	0	0	0	1281
Cropland	0	4158	35	0	0	0	4194
Grassland	0	73	5895	0	5	0	5973
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1438	0	1448
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1279</b>	<b>4236</b>	<b>5938</b>	<b>20</b>	<b>1443</b>	<b>127</b>	<b>13043</b>

**England 2007 to 2008**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1280.363	1	2	0	0	0	1283
Cropland	0	4116	35	0	0	0	4152
Grassland	1	73	5931	0	5	0	6009
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1443	0	1453
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1281</b>	<b>4194</b>	<b>5973</b>	<b>20</b>	<b>1448</b>	<b>127</b>	<b>13044</b>

**England 2008 to 2009**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1281.947	0	1	0	0	0	1284
Cropland	0	4074	35	0	0	0	4110
Grassland	1	73	5967	0	5	0	6045
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1448	0	1458
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1283</b>	<b>4152</b>	<b>6009</b>	<b>20</b>	<b>1453</b>	<b>127</b>	<b>13044</b>

**England 2009 to 2010**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1282.902	0	1	0	0	0	1285
Cropland	0	4032	35	0	0	0	4068
Grassland	1	73	6003	0	5	0	6081
Wetland	0	0	0	20	0	0	20
Settlement	0	5	5	0	1453	0	1463
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1284</b>	<b>4110</b>	<b>6045</b>	<b>20</b>	<b>1458</b>	<b>127</b>	<b>13044</b>

**England 2010 to 2011**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1284.006	0	1	0	0	0	1286
Cropland	0	4067	0	0	0	0	4067
Grassland	0	0	6067	0	0	0	6067
Wetland	0	0	0	20	0	0	20
Settlement	0	0	13	0	1462	0	1476
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1285</b>	<b>4068</b>	<b>6081</b>	<b>20</b>	<b>1463</b>	<b>127</b>	<b>13042</b>

**England 2011 to 2012**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1285.468	1	2	0	0	0	1288
Cropland	0	4067	0	0	0	0	4067
Grassland	0	0	6052	0	0	0	6053
Wetland	0	0	0	20	0	0	20
Settlement	0	0	13	0	1476	0	1489
Other Land	0	0	0	0	0	126	126
<b>Total</b>	<b>1286</b>	<b>4068</b>	<b>6067</b>	<b>20</b>	<b>1476</b>	<b>127</b>	<b>13044</b>

## Scotland

### Scotland 1990 to 1991

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1195	1	14	0	0	0	1210
Cropland	0	1003	21	0	0	0	1025
Grassland	0	17	5258	0	1	0	5276
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	185	0	187
Other Land	0	0	0	0	0	98	98
<b>Total</b>	<b>1195</b>	<b>1021</b>	<b>5296</b>	<b>89</b>	<b>186</b>	<b>98</b>	<b>7885</b>

### Scotland 1991 to 1992

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1210	1	13	0	0	0	1224
Cropland	0	1007	21	0	0	0	1029
Grassland	0	17	5239	0	1	0	5257
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	186	0	188
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1210</b>	<b>1025</b>	<b>5276</b>	<b>89</b>	<b>187</b>	<b>98</b>	<b>7885</b>

### Scotland 1992 to 1993

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1223	1	12	0	0	0	1236
Cropland	0	1011	21	0	0	0	1033
Grassland	0	17	5221	0	1	0	5239
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	187	0	189
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1224</b>	<b>1029</b>	<b>5257</b>	<b>89</b>	<b>188</b>	<b>97</b>	<b>7884</b>

### Scotland 1993 to 1994

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1236	1	11	0	0	0	1248
Cropland	0	1015	21	0	0	0	1037
Grassland	0	17	5204	0	1	0	5222
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	188	0	190
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1236</b>	<b>1033</b>	<b>5239</b>	<b>89</b>	<b>189</b>	<b>97</b>	<b>7883</b>

**Scotland 1994 to 1995**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1248	1	10	0	0	0	1258
Cropland	0	1019	21	0	0	0	1041
Grassland	0	17	5188	0	1	0	5206
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	189	0	191
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1248</b>	<b>1037</b>	<b>5222</b>	<b>89</b>	<b>190</b>	<b>97</b>	<b>7882</b>

**Scotland 1995 to 1996**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1258	1	13	0	0	0	1271
Cropland	0	1023	21	0	0	0	1045
Grassland	0	17	5169	0	1	0	5187
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	190	0	192
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1258</b>	<b>1041</b>	<b>5206</b>	<b>89</b>	<b>191</b>	<b>97</b>	<b>7881</b>

**Scotland 1996 to 1997**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1270	1	10	0	0	0	1281
Cropland	0	1027	21	0	0	0	1049
Grassland	0	17	5153	0	1	0	5171
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	191	0	193
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1271</b>	<b>1045</b>	<b>5187</b>	<b>89</b>	<b>192</b>	<b>97</b>	<b>7880</b>

**Scotland 1997 to 1998**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1280	1	11	0	0	0	1292
Cropland	0	1031	21	0	0	0	1053
Grassland	0	17	5136	0	1	0	5154
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	192	0	194
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1281</b>	<b>1049</b>	<b>5171</b>	<b>89</b>	<b>193</b>	<b>97</b>	<b>7879</b>

**Scotland 1998 to 1999**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1292	1	11	0	0	0	1303
Cropland	0	1035	21	0	0	0	1057
Grassland	0	17	5119	0	1	0	5137
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	193	0	195
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1292</b>	<b>1053</b>	<b>5154</b>	<b>89</b>	<b>194</b>	<b>97</b>	<b>7878</b>

**Scotland 1999 to 2000**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1303	1	8	0	1	0	1313
Cropland	0	1039	21	0	0	0	1061
Grassland	0	17	5105	0	1	0	5123
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	192	0	195
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1303</b>	<b>1057</b>	<b>5137</b>	<b>89</b>	<b>195</b>	<b>97</b>	<b>7878</b>

**Scotland 2000 to 2001**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1313	1	8	0	1	0	1323
Cropland	0	1040	10	0	0	0	1050
Grassland	0	19	5104	0	2	0	5125
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	192	0	194
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1313</b>	<b>1061</b>	<b>5123</b>	<b>89</b>	<b>195</b>	<b>97</b>	<b>7878</b>

**Scotland 2001 to 2002**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1322	1	9	0	1	0	1334
Cropland	0	1029	10	0	0	0	1039
Grassland	0	19	5104	0	2	0	5125
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	191	0	193
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1323</b>	<b>1050</b>	<b>5125</b>	<b>89</b>	<b>194</b>	<b>97</b>	<b>7877</b>

### Scotland 2002 to 2003

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1334	0	6	0	1	0	1342
Cropland	0	1019	10	0	0	0	1029
Grassland	0	19	5108	0	2	0	5129
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	190	0	192
Other Land	0	0	0	0	0	97	97
<b>Total</b>	<b>1334</b>	<b>1039</b>	<b>5125</b>	<b>89</b>	<b>193</b>	<b>97</b>	<b>7877</b>

### Scotland 2003 to 2004

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1341	0	5	0	1	0	1348
Cropland	0	1009	10	0	0	0	1019
Grassland	0	19	5113	0	2	0	5134
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	189	0	191
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1342</b>	<b>1029</b>	<b>5129</b>	<b>89</b>	<b>192</b>	<b>97</b>	<b>7877</b>

### Scotland 2004 to 2005

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1347	0	5	0	1	0	1354
Cropland	0	999	10	0	0	0	1009
Grassland	1	19	5117	0	2	0	5139
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	188	0	190
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1348</b>	<b>1019</b>	<b>5134</b>	<b>89</b>	<b>191</b>	<b>96</b>	<b>7877</b>

### Scotland 2005 to 2006

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1353	0	5	0	1	0	1359
Cropland	0	989	10	0	0	0	999
Grassland	1	19	5123	0	2	0	5145
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	188	0	190
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1354</b>	<b>1009</b>	<b>5139</b>	<b>89</b>	<b>190</b>	<b>96</b>	<b>7878</b>

**Scotland 2006 to 2007**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1359	0	3	0	0	0	1363
Cropland	0	979	10	0	0	0	989
Grassland	0	19	5131	0	2	0	5152
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	188	0	190
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1359</b>	<b>999</b>	<b>5145</b>	<b>89</b>	<b>190</b>	<b>96</b>	<b>7879</b>

**Scotland 2007 to 2008**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1362	0	5	0	1	0	1369
Cropland	0	969	10	0	0	0	979
Grassland	0	19	5136	0	2	0	5157
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	187	0	189
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1363</b>	<b>989</b>	<b>5152</b>	<b>89</b>	<b>190</b>	<b>96</b>	<b>7879</b>

**Scotland 2008 to 2009**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1369	0	3	0	1	0	1373
Cropland	0	959	10	0	0	0	969
Grassland	0	19	5143	0	2	0	5164
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	187	0	189
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1369</b>	<b>979</b>	<b>5157</b>	<b>89</b>	<b>189</b>	<b>96</b>	<b>7880</b>

**Scotland 2009 to 2010**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1373	0	3	0	0	0	1376
Cropland	0	949	10	0	0	0	959
Grassland	0	19	5150	0	2	0	5171
Wetland	0	0	0	89	0	0	89
Settlement	0	1	2	0	187	0	189
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1373</b>	<b>969</b>	<b>5164</b>	<b>89</b>	<b>189</b>	<b>96</b>	<b>7880</b>



**Scotland 2010 to 2011**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1375	0	2	0	0	0	1378
Cropland	0	959	0	0	0	0	959
Grassland	0	0	5167	0	0	0	5167
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	189	0	191
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1376</b>	<b>959</b>	<b>5171</b>	<b>89</b>	<b>189</b>	<b>96</b>	<b>7880</b>

**Scotland 2011 to 2012**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1378	0	4	0	1	0	1383
Cropland	0	959	0	0	0	0	959
Grassland	0	0	5161	0	0	0	5161
Wetland	0	0	0	89	0	0	89
Settlement	0	0	2	0	191	0	193
Other Land	0	0	0	0	0	96	96
<b>Total</b>	<b>1378</b>	<b>959</b>	<b>5167</b>	<b>89</b>	<b>191</b>	<b>96</b>	<b>7881</b>

## Wales

### Wales 1990 to 1991

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	301	0	1	0	0	0	302
Cropland	0	332	8	0	0	0	340
Grassland	0	5	1292	0	1	0	1298
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	130	0	132
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>301</b>	<b>338</b>	<b>1302</b>	<b>5</b>	<b>131</b>	<b>15</b>	<b>2092</b>

### Wales 1991 to 1992

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	301	0	0	0	0	0	302
Cropland	0	334	8	0	0	0	342
Grassland	0	5	1288	0	1	0	1294
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	131	0	133
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>302</b>	<b>340</b>	<b>1298</b>	<b>5</b>	<b>132</b>	<b>15</b>	<b>2091</b>

### Wales 1992 to 1993

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	302	0	0	0	0	0	302
Cropland	0	336	8	0	0	0	344
Grassland	0	5	1284	0	1	0	1290
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	132	0	134
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>302</b>	<b>342</b>	<b>1294</b>	<b>5</b>	<b>133</b>	<b>15</b>	<b>2090</b>

### Wales 1993 to 1994

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	302	0	0	0	0	0	302
Cropland	0	338	8	0	0	0	346
Grassland	0	5	1280	0	1	0	1286
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	133	0	135
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>302</b>	<b>344</b>	<b>1290</b>	<b>5</b>	<b>134</b>	<b>15</b>	<b>2089</b>

### Wales 1994 to 1995

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	302	0	1	0	0	0	303
Cropland	0	340	8	0	0	0	348
Grassland	0	5	1276	0	1	0	1282
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	134	0	136
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>302</b>	<b>346</b>	<b>1286</b>	<b>5</b>	<b>135</b>	<b>15</b>	<b>2089</b>

### Wales 1995 to 1996

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	302	0	0	0	0	0	303
Cropland	0	342	8	0	0	0	350
Grassland	0	5	1272	0	1	0	1278
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	135	0	137
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>348</b>	<b>1282</b>	<b>5</b>	<b>136</b>	<b>15</b>	<b>2088</b>

### Wales 1996 to 1997

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	0	0	0	0	303
Cropland	0	344	8	0	0	0	352
Grassland	0	5	1268	0	1	0	1274
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	136	0	138
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>350</b>	<b>1278</b>	<b>5</b>	<b>137</b>	<b>15</b>	<b>2087</b>

### Wales 1997 to 1998

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	0	0	0	0	303
Cropland	0	346	8	0	0	0	354
Grassland	0	5	1264	0	1	0	1270
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	137	0	139
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>352</b>	<b>1274</b>	<b>5</b>	<b>138</b>	<b>15</b>	<b>2086</b>

**Wales 1998 to 1999**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	0	0	0	0	303
Cropland	0	348	8	0	0	0	356
Grassland	0	5	1260	0	1	0	1266
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	138	0	140
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>354</b>	<b>1270</b>	<b>5</b>	<b>139</b>	<b>15</b>	<b>2085</b>

**Wales 1999 to 2000**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	302	0	1	0	0	0	303
Cropland	0	350	8	0	0	0	358
Grassland	0	5	1256	0	1	0	1262
Wetland	0	0	0	5	0	0	5
Settlement	0	0	2	0	139	0	141
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>356</b>	<b>1266</b>	<b>5</b>	<b>140</b>	<b>15</b>	<b>2083</b>

**Wales 2000 to 2001**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	1	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1256	0	1	0	1260
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	141	0	142
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>303</b>	<b>358</b>	<b>1262</b>	<b>5</b>	<b>141</b>	<b>15</b>	<b>2083</b>

**Wales 2001 to 2002**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1255	0	1	0	1259
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	142	0	143
Other Land	0	0	0	0	0	15	15
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1260</b>	<b>5</b>	<b>142</b>	<b>15</b>	<b>2083</b>

**Wales 2002 to 2003**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1254	0	1	0	1258
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	143	0	144
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1259</b>	<b>5</b>	<b>143</b>	<b>14</b>	<b>2083</b>

**Wales 2003 to 2004**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1252	0	1	0	1256
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	144	0	145
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1258</b>	<b>5</b>	<b>144</b>	<b>14</b>	<b>2082</b>

**Wales 2004 to 2005**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1250	0	1	0	1254
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	145	0	146
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1256</b>	<b>5</b>	<b>145</b>	<b>14</b>	<b>2081</b>

**Wales 2005 to 2006**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	1	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1248	0	1	0	1252
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	146	0	147
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1254</b>	<b>5</b>	<b>146</b>	<b>14</b>	<b>2080</b>

**Wales 2006 to 2007**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1246	0	1	0	1250
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	147	0	148
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1252</b>	<b>5</b>	<b>147</b>	<b>14</b>	<b>2079</b>

**Wales 2007 to 2008**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	303	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1244	0	1	0	1248
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	148	0	149
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1250</b>	<b>5</b>	<b>148</b>	<b>14</b>	<b>2078</b>

**Wales 2008 to 2009**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1243	0	1	0	1247
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	149	0	150
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1248</b>	<b>5</b>	<b>149</b>	<b>14</b>	<b>2078</b>

**Wales 2009 to 2010**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	354	4	0	0	0	358
Grassland	0	4	1242	0	1	0	1246
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	149	0	150
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1247</b>	<b>5</b>	<b>150</b>	<b>14</b>	<b>2078</b>

**Wales 2010 to 2011**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	358	6	0	0	0	363
Grassland	0	0	1239	0	0	0	1239
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	151	0	152
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>358</b>	<b>1246</b>	<b>5</b>	<b>151</b>	<b>14</b>	<b>2077</b>

**Wales 2011 to 2012**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	304	0	0	0	0	0	304
Cropland	0	363	6	0	0	0	369
Grassland	0	0	1232	0	0	0	1232
Wetland	0	0	0	5	0	0	5
Settlement	0	0	1	0	152	0	153
Other Land	0	0	0	0	0	14	14
<b>Total</b>	<b>304</b>	<b>363</b>	<b>1239</b>	<b>5</b>	<b>152</b>	<b>14</b>	<b>2078</b>

## Northern Ireland

### Northern Ireland 1990 to 1991

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1213	0	2	0	0	0	1215
Cropland	0	4445	4	0	0	0	4449
Grassland	0	6	5867	0	0	0	5873
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1358	0	1359
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1213</b>	<b>4451</b>	<b>5873</b>	<b>21</b>	<b>1358</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1991 to 1992

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1218	0	1	0	0	0	1219
Cropland	0	4450	4	0	0	0	4454
Grassland	0	6	5852	0	0	0	5858
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1364	0	1365
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1218</b>	<b>4456</b>	<b>5858</b>	<b>21</b>	<b>1364</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1992 to 1993

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1222	0	1	0	0	0	1223
Cropland	0	4455	4	0	0	0	4459
Grassland	0	6	5837	0	0	0	5843
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1370	0	1371
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1222</b>	<b>4461</b>	<b>5843</b>	<b>21</b>	<b>1370</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 1993 to 1994

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1227	0	1	0	0	0	1228
Cropland	0	4460	4	0	0	0	4464
Grassland	0	6	5821	0	0	0	5827
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1376	0	1377
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1227</b>	<b>4466</b>	<b>5827</b>	<b>21</b>	<b>1376</b>	<b>127</b>	<b>13044</b>



### Northern Ireland 1994 to 1995

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1233	0	1	0	0	0	1234
Cropland	0	4465	4	0	0	0	4469
Grassland	0	6	5805	0	0	0	5811
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1382	0	1383
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1233</b>	<b>4471</b>	<b>5811</b>	<b>21</b>	<b>1382</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1995 to 1996

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1238	0	1	0	0	0	1239
Cropland	0	4470	4	0	0	0	4474
Grassland	0	6	5789	0	0	0	5795
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1388	0	1389
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1238</b>	<b>4476</b>	<b>5795</b>	<b>21</b>	<b>1388</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1996 to 1997

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1242	0	1	0	0	0	1243
Cropland	0	4475	4	0	0	0	4479
Grassland	0	6	5774	0	0	0	5780
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1394	0	1395
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1242</b>	<b>4481</b>	<b>5780</b>	<b>21</b>	<b>1394</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1997 to 1998

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1246	0	1	0	0	0	1247
Cropland	0	4480	4	0	0	0	4484
Grassland	0	6	5759	0	0	0	5765
Wetland	0	0	0	21	0	0	21
Settlement	0	0	1	0	1400	0	1401
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1246</b>	<b>4486</b>	<b>5764</b>	<b>21</b>	<b>1400</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1998 to 1999

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1250	0	1	0	0	0	1251
Cropland	0	4485	4	0	0	0	4489
Grassland	0	6	5744	0	0	0	5750
Wetland	0	0	0	20	0	0	20
Settlement	0	0	1	0	1406	0	1407
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1250</b>	<b>4491</b>	<b>5749</b>	<b>21</b>	<b>1406</b>	<b>127</b>	<b>13045</b>

### Northern Ireland 1999 to 2000

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1254	0	1	0	0	0	1255
Cropland	0	4490	4	0	0	0	4494
Grassland	0	6	5728	0	0	0	5734
Wetland	0	0	0	20	0	0	20
Settlement	0	0	1	0	1412	0	1413
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1254</b>	<b>4496</b>	<b>5733</b>	<b>21</b>	<b>1412</b>	<b>127</b>	<b>13043</b>

### Northern Ireland 2000 to 2001

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1259	0	1	0	0	0	1260
Cropland	0	4448	3	0	0	0	4451
Grassland	0	4	5763	0	0	0	5768
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1416	0	1418
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1259</b>	<b>4452</b>	<b>5769</b>	<b>21</b>	<b>1416</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 2001 to 2002

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1263	0	1	0	0	0	1264
Cropland	0	4405	3	0	0	0	4408
Grassland	0	4	5797	0	0	0	5802
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1421	0	1423
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1263</b>	<b>4409</b>	<b>5803</b>	<b>20</b>	<b>1421</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 2002 to 2003

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1267	0	1	0	0	0	1268
Cropland	0	4362	3	0	0	0	4365
Grassland	0	4	5831	0	0	0	5836
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1426	0	1428
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1267</b>	<b>4366</b>	<b>5837</b>	<b>20</b>	<b>1426</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 2003 to 2004

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1271	0	1	0	0	0	1272
Cropland	0	4319	3	0	0	0	4322
Grassland	0	4	5865	0	0	0	5870
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1431	0	1433
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1272</b>	<b>4323</b>	<b>5871</b>	<b>20</b>	<b>1431</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 2004 to 2005

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1274	0	0	0	0	0	1275
Cropland	0	4276	3	0	0	0	4279
Grassland	0	4	5899	0	0	0	5904
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1436	0	1438
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1275</b>	<b>4280</b>	<b>5905</b>	<b>20</b>	<b>1436</b>	<b>127</b>	<b>13043</b>

### Northern Ireland 2005 to 2006

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1279	0	0	0	0	0	1279
Cropland	0	4233	3	0	0	0	4236
Grassland	0	4	5933	0	0	0	5938
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1441	0	1443
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1279</b>	<b>4237</b>	<b>5939</b>	<b>20</b>	<b>1441</b>	<b>127</b>	<b>13043</b>

**Northern Ireland 2006 to 2007**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1280	0	1	0	0	0	1281
Cropland	0	4191	3	0	0	0	4194
Grassland	0	4	5968	0	0	0	5973
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1446	0	1448
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1280</b>	<b>4195</b>	<b>5974</b>	<b>20</b>	<b>1446</b>	<b>127</b>	<b>13043</b>

**Northern Ireland 2007to 2008**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1283	0	0	0	0	0	1283
Cropland	0	4149	3	0	0	0	4152
Grassland	0	4	6004	0	0	0	6009
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1451	0	1453
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1283</b>	<b>4153</b>	<b>6010</b>	<b>20</b>	<b>1451</b>	<b>127</b>	<b>13044</b>

**Northern Ireland 2008 to 2009**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1283	0	0	0	0	0	1284
Cropland	0	4107	3	0	0	0	4110
Grassland	0	4	6041	0	0	0	6045
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1456	0	1458
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1284</b>	<b>4111</b>	<b>6046</b>	<b>20</b>	<b>1456</b>	<b>127</b>	<b>13044</b>

**Northern Ireland 2009 to 2010**

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1285	0	0	0	0	0	1285
Cropland	0	4065	3	0	0	0	4068
Grassland	0	4	6077	0	0	0	6081
Wetland	0	0	0	20	0	0	20
Settlement	0	0	2	0	1461	0	1463
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1285</b>	<b>4069</b>	<b>6082</b>	<b>20</b>	<b>1461</b>	<b>127</b>	<b>13044</b>

### Northern Ireland 2010 to 2011

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1286	0	0	0	0	0	1286
Cropland	0	4067	0	0	0	0	4067
Grassland	0	0	6067	0	0	0	6067
Wetland	0	0	0	20	0	0	20
Settlement	0	0	1	0	1475	0	1476
Other Land	0	0	0	0	0	127	127
<b>Total</b>	<b>1286</b>	<b>4067</b>	<b>6068</b>	<b>20</b>	<b>1475</b>	<b>127</b>	<b>13042</b>

### Northern Ireland 2011 to 2012

From To	Forest	Cropland	Grassland	Wetland	Settlement	Other Land	Total
Forest	1288	0	0	0	0	0	1288
Cropland	0	4067	0	0	0	0	4067
Grassland	0	0	6053	0	0	0	6053
Wetland	0	0	0	20	0	0	20
Settlement	0	0	1	0	1488	0	1489
Other Land	0	0	0	0	0	126	126
<b>Total</b>	<b>1288</b>	<b>4067</b>	<b>6054</b>	<b>20</b>	<b>1488</b>	<b>127</b>	<b>13044</b>