Land cover 2006

Overview of land cover & change 2000-2006

During the period 2000-2006, the development of land cover in the United Kingdom is moderate. With mean annual land cover change rate 0.15% of the total area, the overall rate is close to average among European countries. The most significant process in land cover development is artificial land take, mainly due to sprawl of economic sites and infrastructures. It occurs mostly at the expense of former agricultural land. Beside the artificial land sprawl, significant consumption of pasture and semi-natural vegetation land, mainly due to afforestation activities, has been observed during this period, too. As a result of both processes, net change balance of agricultural land is significantly negative, particularly in case of pastures. Finally, internal forest exchange is the other important driver of land cover development in the United Kingdom.

Concerning the distribution, changes of forested, natural and pasture land occur mainly in Scotland, Northern Ireland and Wales, while artificial land take is scattered uniformly mainly over England and also in the surroundings of major cities all over the country. However, surprisingly no significant sprawl is observed in the capital city hinterland.

Note: The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over almost two decades 1990-2006 - see Corine land cover (CLC) programme for details. Number of years between CLC2000-CLC2006 data for the United Kingdom: 6











Artificial areas

Semi-natural vegetation

Arable land & permanent crops Pastures & mosaics □ Open spaces/ bare soils Wetlands





Summary balance table 20	000-2008	2							
	Artificial areas	Arable land & permanent crops	Pastures & mosaics	Forested land	Semi-natural vegetation	Open spaces/ bare soils	Wetlands	Water bodies	TOTAL [hundreds ha]
Land cover 2000	18425	66877	70824	22644	40065	5340	12604	2444	239222
Consumption of initial LC	69	78	201	1669	97	0	7	1	2123
Formation of new LC	271	14	33	1749	42	0	11	3	2123
Net Formation of LC	202	-65	-168	80	-54	0	4	2	0
Net formation as % of initial year	1.1	-0.1	-0.2	0.4	-0.1	0.0	0.0	0.1	
Total turnover of LC	341	92	234	3418	139	0	18	4	4245
Total turnover as % of initial year	1.8	0.1	0.3	15.1	0.3	0.0	0.1	0.1	1.8
Land cover 2006	18627	66812	70656	22724	40010	5339	12607	2446	239222

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Summary trend figures				
Annual land cover change [ha/year]				
Annual land cover change as % of initial year				
Land uptake by artificial development as mean annual change [ha/year]				
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]				
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]				
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]				
Forest & other woodland net formation as mean annual change [ha/year]				
Dry semi-natural land cover net formation as mean annual change [ha/year]				
Wetlands & water bodies net formation as mean annual change [ha/year]				



Artificial areas



Spread of housing, commerce and recreation

Overall rate of artificial land take in UK is around 0,2% of initial land artificial land, which is average rate compared to other European countries. The sprawl is driven mainly by dispersion of discontinuous urban fabric and sport and leisure facilities. Beside, also industrial and commercial sprawl and formation of mineral extraction sites contribute to total artificial land take.

On the other hand, there has been observed decrease of urban green areas and construction sites – which have been both consumed mostly by internal conversion of artificial land, via transition into discontinuous urban fabric and industrial or commercial sites.







Agriculture



Consumption of agricultural land, especially pastures

Agricultural land in UK, as reflected by CLC, is composed almost entirely by arable land and pastures. During the period 2000-2006, there occurs significant decrease of agricultural areas, especially pasture land. This consumption has been caused mainly by artificial land take and also by withdrawal of farming with woodland creation. Internal agricultural exchange has been represented mostly by intensive conversion from pastures to arable or crop land, however, overall extent of this internal change is neglectable compared to external agriculture consumption.



Forest & nature



Formation of forested areas and consumption of semi-natural vegetation

Almost three quarters of natural areas in UK are covered by semi-natural vegetation or wetlands and this area shows to be fairly stable during the period 2000-2006. Change in natural land cover has been driven mostly by change of forested land. Beside internal change of woodland with prevailing recent felling and transition, there is also significant amount of forest creation from non-forest areas. New forested land (with prevailing coniferous species) originates mainly from former dry semi-natural land, pastures or wetlands. Artificial take of natural land cover has been represented mostly by spread of mineral extraction sites or sport and leisure facilities.



Annex: Land cover flows and trends

Land cover flows 2000-2006



6.20. Drivers of change (LC FLOWS) 2000-2006 [% of total change area]



- Icf1 Urban land management
- Icf2 Urban residential sprawl
- lcf3 Sprawl of economic sites and infrastructures
- Icf4 Agriculture internal conversions
- Icf5 Conversion from forested & natural land to agriculture
- □ lcf6 Withdrawal of farming
- Icf7 Forests creation and management
- Icf8 Water bodies creation and management
- Icf9 Changes due to natural and multiple causes

Artificial areas



7.23. Net formation of artificial area [ha/year, % of initial year]



7.22. Formation by artificial land take 2000-2006 [% of total]



7.24. Artificial development by change drivers (LC FLOWS) [ha/year]



Agriculture











8.26. Formation of agricultural land from non-agriculture 2000-2006 [% of total]



8.28. Formation of non-agricultural land from agriculture 2000-2006 [% of total]



8.30. Mean annual conversion between arable land and pasture [ha/year]





Forest & nature







from non-forest /nature 2000-2006 [% of total] Water Salt Intert. courses marshes flats 0.03% 1% 0,2% Water Broadbodies Peatbogs leaved Tr. 3% 3% forest woodland/ 22% shrub 17% Moors and heathland 3% Natural grassland , Coniferous 8% Mixed f forest 38% 5%

10.34. Formation of forest & nature land

10.36. Formation of non-forest/nature land from forest & nature 2000-2006 [% of total]



10.38. Main trends in woodland & forests consumption/formation 2000-2006 [ha/year]



10.37. Forested land 2006 [% of total area]







11.43. Mean annual conversions of forest & other woodland [ha/year]







12.45. Mean annual conversions of wetlands and water LC [ha/year]



