Country fact sheet

Land cover 2012





September 2017



European Environment Agency

Photo: © Toni García, My City/EEA

Land cover 2012

Overview of land cover & change 2006-2012

The overall rate of land cover change in Ireland is safely above the European average, which indicates a dynamic development of the landscape in this country. However, a comparison with the previous periods shows a slightly decreasing tendency of this rate between the last two periods; also the rate is more than twice lower than in the period 1990-2000, which shows the overall stabilization of the Irish land cover development. This decrease is caused by significant slowdown of the internal forest conversions, withdrawal of farming and also of artificial sprawl.

The landscape development in the period 2006-2012 is driven mostly by forest and agricultural internal conversions, as well as by withdrawal of farming. In contrast to the previous periods, the agricultural internal conversion became the most extensive land cover flow in Ireland, which is a similar situation to the period 1990-2000.

The artificial development, which was extremely fast during both periods 1990-2000 and 2000-2006, shows rapid slowdown in 2006-2012. The current annual artificial land take rate (0.25%) is quite low, comparing with other European countries.

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 more than decade between 2000-2006-2012 - see Corine land cover (CLC) programme for details.

Number of years between CLC2006-CLC2012 data for Ireland: 6

1.1. Land cover 2012

[% of total]



CORINE Land Cover types - 2012





1.2. Net change in land

cover 2006-2012 [ha]

1.3. Net change in land cover [% of initial year



Artificial areas

Semi-natural vegetation

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



Water bodies

| | 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 2006 | 1737 | 3641 | 43731 | 6731 | 1397 | 827 | 10911 | 1471 | 70445 |
| Consumption of initial LC | 57.8 | 335.6 | 367.3 | 522.7 | 2.2 | 0.5 | 37.5 | 0.3 | 1324 |
| Formation of new LC | 78.4 | 189.0 | 356.3 | 698.9 | 0.0 | 0.3 | 0.5 | 0.3 | 1324 |
| Net Formation of LC | 20.6 | -146.6 | -11.0 | 176.2 | -2.2 | -0.2 | -36.9 | 0.1 | 0 |
| Net formation as % of initial year | 1.2 | -4.0 | 0.0 | 2.6 | -0.2 | 0.0 | -0.3 | 0.0 | |
| Total turnover of LC | 136.2 | 524.6 | 723.6 | 1221.6 | 2.2 | 0.8 | 38.0 | 0.6 | 2647 |
| Total turnover as % of initial year | 7.8 | 14.4 | 1.7 | 18.1 | 0.2 | 0.1 | 0.3 | 0.0 | 3.8 |
| Land cover 2012 | 1758 | 3494 | 43720 | 6907 | 1395 | 827 | 10874 | 1471 | 70445 |

Summary balance table 2006-2012



Land cover trends comparison 2000-2006 vs. 2006-2012

| Summary trend figures | 2000-2006 | 2006-2012 |
|---|-----------|-----------|
| Annual land cover change [ha/year] | 25735 | 22062 |
| Annual land cover change as % of initial year | 0.37% | 0.31% |
| Land uptake by artificial development as mean annual change [ha/year] | 3235 | 416 |
| Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year] | 3095 | 382 |
| Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year] | -3219 | -2308 |
| Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year] | 64 | -2681 |
| Forest & other woodland net formation as mean annual change [ha/year] | 8308 | 2937 |
| Dry semi-natural land cover net formation as mean annual change [ha/year] | -255 | -41 |
| Wetlands & water bodies net formation as mean annual change [ha/year] | - 4938 | -614 |

2.7. Intensity of main change drivers (LC FLOWS) [ha/year]



20000



Artificial surfaces sprawl (2006-2012)

Rapid slowdown of artificial development

The artificial sprawl rate in Ireland is rather low, in comparison with the European average. It has to be outpointed, that this rate rapidly decreased, compared to previous periods 1990-2000 and 2000-2006, which indicates rapid slowdown of the artificial land development in the country. Urban land recycling, represented by conversion of sites, which were under construction already during the previous period, into urban fabric, transportation or industrial/commercial units, is significantly stronger than the land take itself. All major compounds of sprawl from the 2000-2006 (with diffuse residential sprawl on the first place) lost most of its intensity. Concerning the geographical distribution of the sprawl, the pattern is similar to the previous period; however, the intensity is much lower. The sprawl is still located mainly in the surroundings of the capital city of Dublin, however, most of the sprawl of economic sites and infrastructures disappeared from this region and there only remained some amount of residential development. The only locations with still prevailing development of economic sites and infrastructures can be found around the cities of Galway and Limerick.





Agriculture (2006-2012)



Rapid increase of agricultural development dynamics

In contrast to the artificial sprawl, the agricultural internal development is much more dynamic in the period 2006-2012 than in the previous one. Extension of pasture, set aside and fallow land dominates over the opposite conversion of pasture to arable land. These internal agricultural flows were in significant decline during the period 2000-2006; however, their intensity was even higher in the period 1990-2000 during which the conversion from pasture to arable was the dominant one. As a result of this internal development, the arable land shows negative net change balance in the 2006-2012, with circa 4% consumption of initial area. On the other hand, the consumption of pasture and agro-natural land is driven mainly by the withdrawal of farming with transitional woodland and shrub creation. This trend was significant already in the previous period, with even slightly higher intensity.



Forest & nature (2006-2012)



Forest and nature land development

The internal conversions of forested land represented the most frequent change in the frame of both previous periods 1990-2000 and 2000-2006; however, in recent years, they are in major decline and their intensity in the period 2006-2012 was comparable with the intensity of the second most powerful driver of change in the country – the agriculture internal conversions. Recent felling and transition still prevails over the opposite forest formation. Beside it, also withdrawal of farming with woodland creation can be observed in Ireland, represented mostly by the conversion of pastures to transitional woodland/shrub land. Although the intensity of this flow is lower, compared to the 2000-2006, it remains one of the most important drivers of the Irish landscape development. There also occurs significant amount of transitional woodland and shrub land creation over former peatbogs in Ireland. Changes of natural land are uniformly distributed over the whole country, with forest creation over peatbogs concentrated more along the western coastline.



5.16. Development of forest & nature areas 2006-2012 - detailed balance [ha]





Annex: Land cover flows and trends

Land cover flows 2006-2012



6.20. Drivers of change (LC FLOWS) 2006-2012 [% of total change area]



- Icf1 Urban land management
- Icf2 Urban residential sprawl
- Icf3 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

7.21. Consumption by artificial land take 2006-2012 [% of total]



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



7.22. Formation by artificial land take 2006-2012 [% of total]



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



Agriculture

8.25. LC consumed by agriculture 2006-2012 [% of total]











8.26. Formation of agricultural land from non-agriculture 2006-2012 [% of total]



8.28. Formation of non-agricultural land from agriculture 2006-2012 [% of total]



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







9.32. Mean annual conversions between agriculture

Forest & nature

10.33. LC consumed by forest & nature 2006-2012 [% of total]



10.34. Formation of forest & nature land from non-forest /nature 2006-2012 [% of total]



10.36. Formation of non-forest/nature land from forest & nature 2006-2012 [% of total]







10.35. Consumption of forest & nature land by non-forest/nature 2006-2012 [% of total]











- lcf13 Development of green urban areas
- lcf2 Urban residential sprawl

Icf3 Sprawl of economic sites and infrastructures

- Icf511 Intensive conversion from forest to agriculture
- Icf512 Diffuse conversion from forest to agriculture
- lcf61 Withdrawal of farming with woodland creation
- Icf71 Conversion from transitional woodland to forest (cons.)
- lcf71 Conversion from transitional woodland to forest (form.)
- Icf72 Forest creation, afforestation
- Icf73 Forests internal conversions (cons.)
- Icf73 Forests internal conversions (form.)
- lcf74 Recent felling and transition (cons.)
- lcf74 Recent felling and transition (form.)
- lcf8 Water bodies creation and management
- lcf9 Changes of land cover due to natural and multiple causes (cons.)
- Icf9 Changes of land cover due to natural and multiple causes (form.)



12.44. Mean annual conversions of dry semi-natural LC [ha/year]















