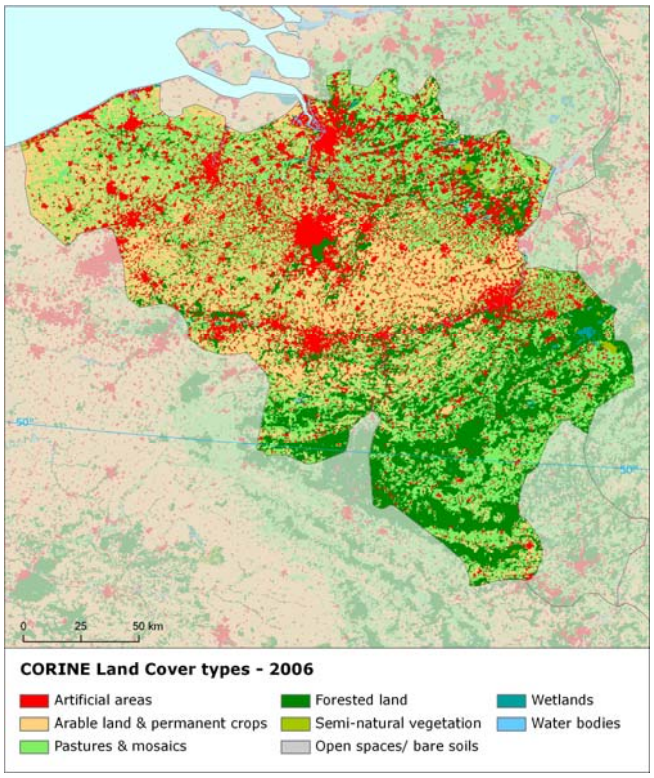
Belgium

Land cover 2006

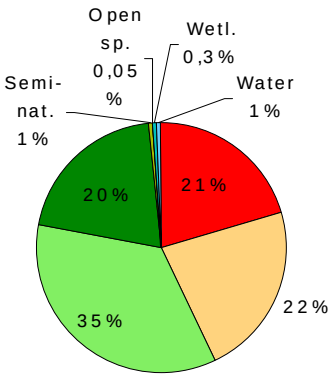
Overview of land cover & change 2000-2006

The overall development of land cover in Belgium has been stabilized during 2000-2006 period. This fact is demonstrated by decrease of annual land cover change rate, which is more then two times lower compared to previous period 1990-2000.
According to net formation balances of basic land cover types, the structure of development remains similar to previous period, with prevailing formation of artificial surfaces and water bodies and consumption of arable land and semi-natural vegetation. However, all main drivers of changes in Belgium have significantly lower intensity compared to previous period.
In particular, it is evident for agriculture internal conversions and withdrawal of farming (which almost disappeared in 2000-2006) as well as urban residential sprawl. Despite significant decrease of intensity, forest creation and management and sprawl of economic sites and infrastructures remain the major drivers of land cover development in Belgium. Forest development is represented mostly by internal conversions between transitional woodland and forest (due to regular forestry activities), with prevailing recent felling and transition. Artificial land take is driven by sprawl of industrial/commercial sites and by construction.
Spatially, changes of forested land are situated mostly over south-eastern part of Belgium. On the contrary, artificial sprawl occurs mainly in northern (densely populated) part of the country (Flanders and northern Wallonia).

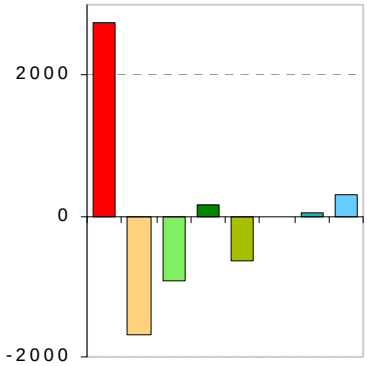


Note: The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over almost two decades 1990-2006 - see Corine land cover (CLC) programme for details.
Number of years between CLC2000-CLC2006 data for Belgium: 6

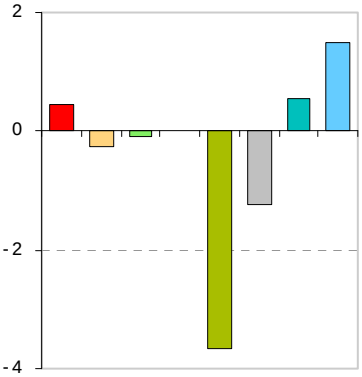
1.1. Land cover 2006 [% of total]



1.2. Net change in land cover 2000-2006 [ha]



1.3. Net change in land cover [% of initial year 2000]



Artificial areas | Arable land & permanent crops | Pastures & mosaics | Forested land
Semi-natural vegetation | Open spaces/ bare soils | Wetlands | Water bodies

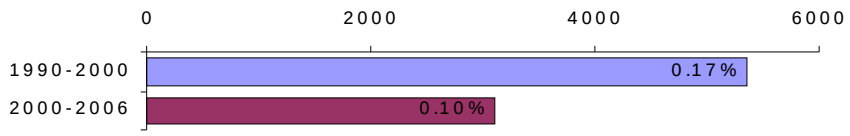
Summary balance table 2000-2006

	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	**6276**	**6795**	**10825**	**6278**	**176**	**14**	**103**	**205**	**30672**
Consumption of initial LC	19	18	11	127	8	1	0	1	186
Formation of new LC	47	1	2	129	2	0	1	4	186
Net Formation of LC	**28**	**-17**	**-9**	**1**	**-6**	**0**	**1**	**3**	**0**
Net formation as % of initial year	*0.4*	*-0.2*	*-0.1*	*0.0*	*-3.7*	*-1.3*	*0.5*	*1.5*	
Total turnover of LC	**66**	**19**	**13**	**256**	**10**	**1**	**1**	**6**	**373**
Total turnover as % of initial year	*1.1*	*0.3*	*0.1*	*4.1*	*5.8*	*6.8*	*1.1*	*2.7*	*1.2*
Land cover 2006	**6303**	**6779**	**10816**	**6280**	**170**	**14**	**103**	**208**	**30672**

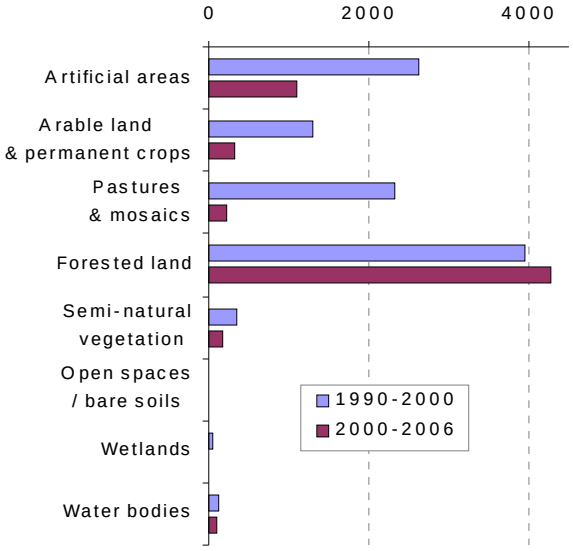
Belgium

Land cover trends comparison 1990-2000 vs. 2000-2006

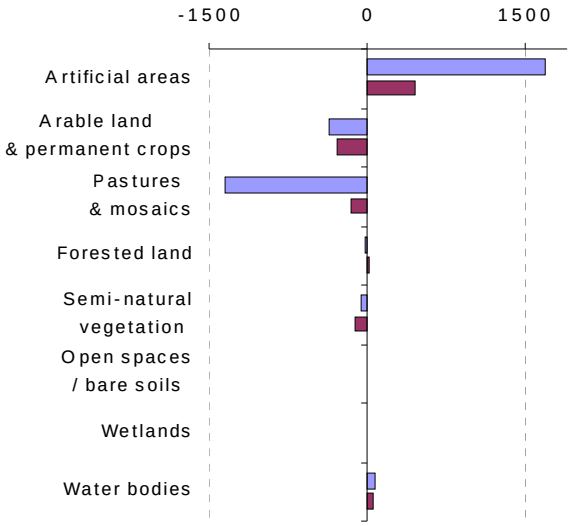
2.4. Annual land cover change [ha/year, % of total area]



2.5. Annual turnover of LC types [ha/year]

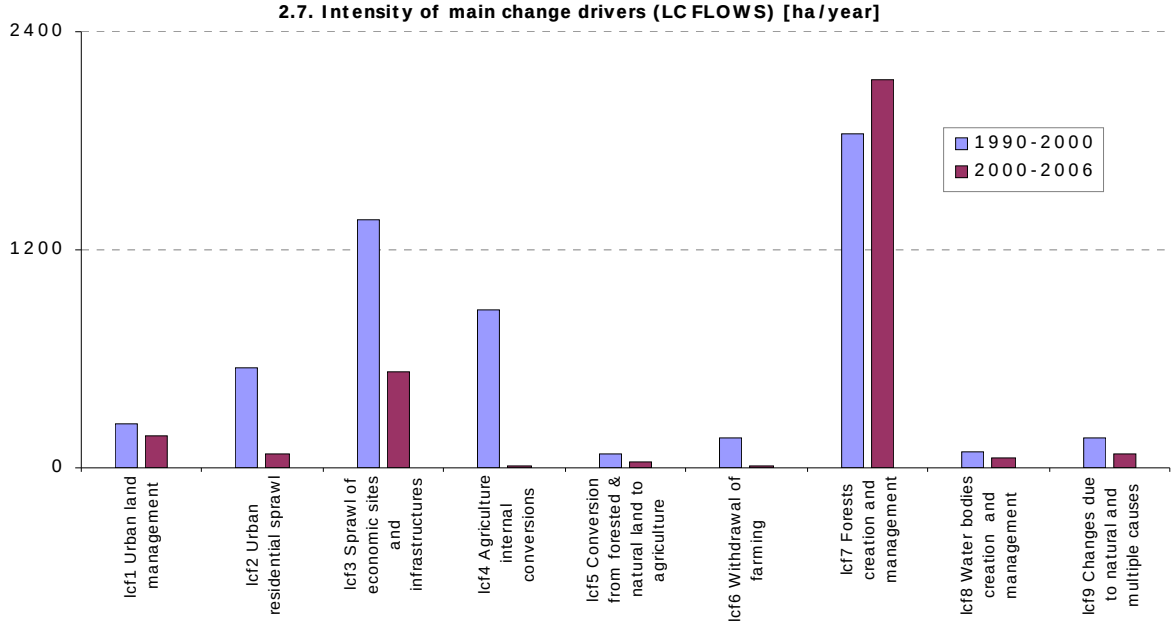


2.6. Net annual change of LC types [ha/year]



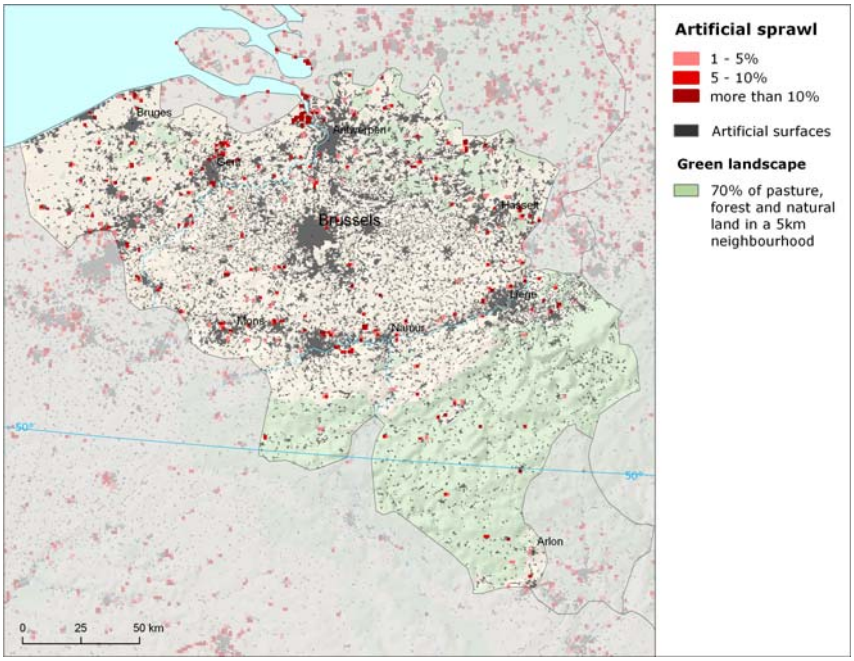
Summary trend figures	1990-2000	2000-2006
Annual land cover change [ha/year]	**5360**	**3107**
Annual land cover change as % of initial year	**0.17%**	**0.10%**
Land uptake by artificial development as mean annual change [ha/year]	1900	605
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]	1614	453
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]	-115	0
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]	487	14
Forest & other woodland net formation as mean annual change [ha/year]	-12	24
Dry semi-natural land cover net formation as mean annual change [ha/year]	-53	-111
Wetlands & water bodies net formation as mean annual change [ha/year]	87	60

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

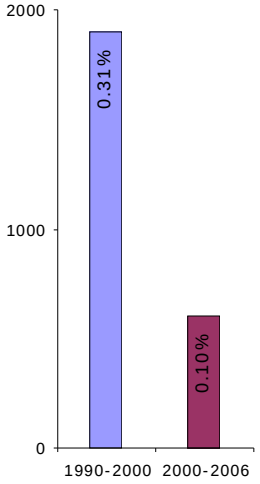


Belgium

Artificial areas



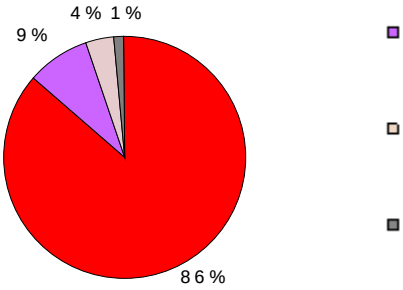
3.8. Artificial land take [ha/year, % of initial year]



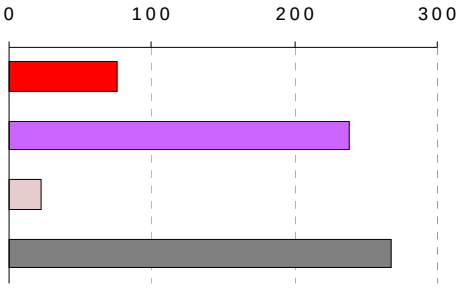
Land uptake slow down

Although artificial land uptake remains the main driver of land cover change in Belgian landscape, the intensity of this phenomenon rapidly decreased compared to previous period (to $^{1}/_{3}$). Most of the artificial land uptake is driven by sprawl of industrial and commercial areas and construction sites, which are accompanied by diffuse residential sprawl, extension of mineral extraction sites and development of harbours, mainly at the expense of agricultural land.
Besides, internal recycling of developed artificial areas remains an important driver of artificial development. This flow is represented by conversion of construction sites mainly into commercial/industrial units and port areas.

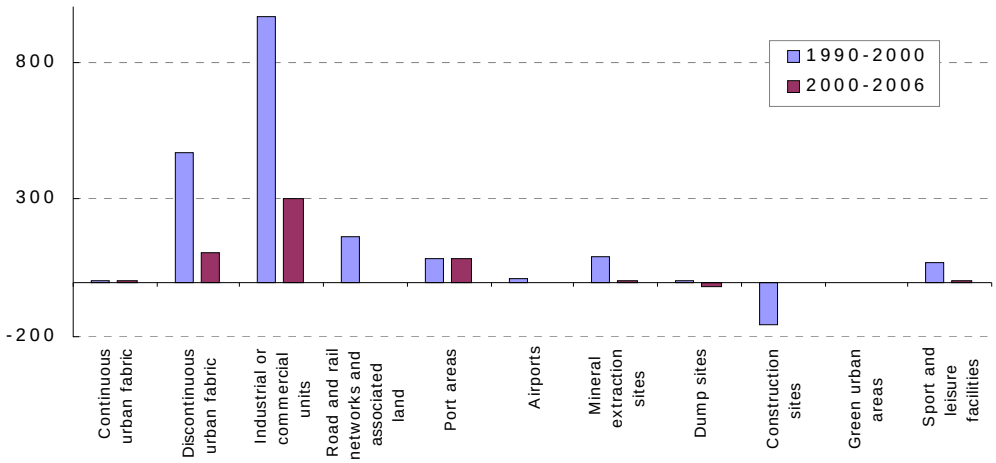
3.9. Artificial surfaces 2006 [% of total area]



3.10. Artificial land take 2000-2006 [ha/year]

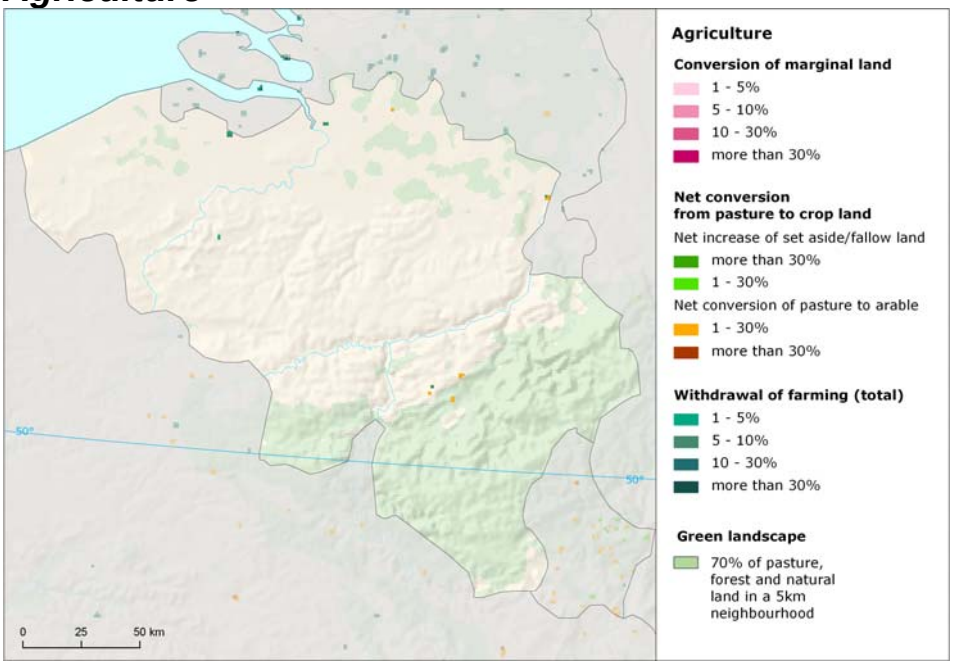


3.11. Mean annual artificial change by class [ha/year]



Belgium

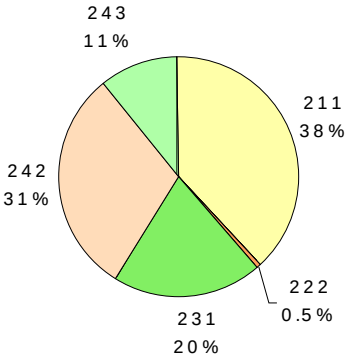
Agriculture

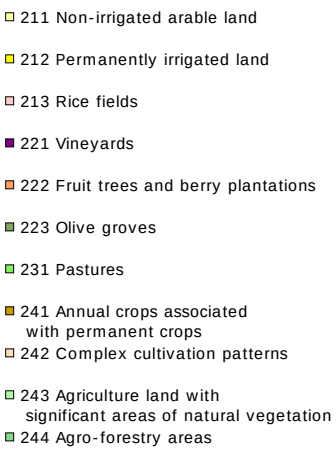


Agricultural change dynamics slow down, consumption of land

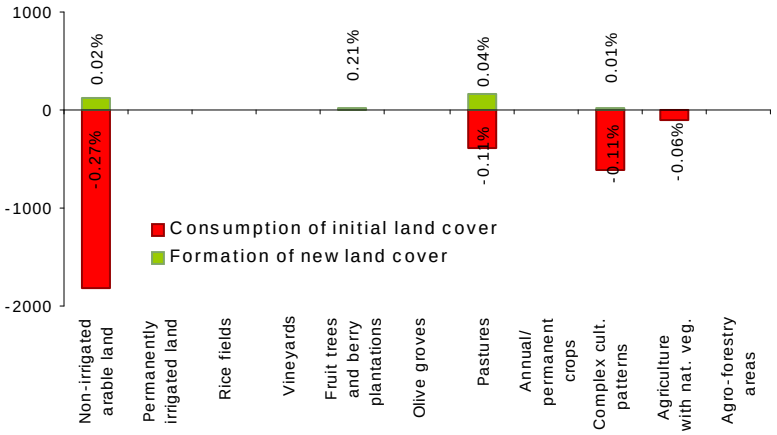
Development of both arable and pasture land in Belgium is characterized by long term consumption of area. All agricultural classes, with the only exception of fruit and berry plantations, have negative balance of net change in both periods 1990-2000 and 2000-2006. However, compared with previous period, consumption of pastures, agricultural land with significant areas of natural vegetation and complex cultivation patterns has taken significant slow down. Agricultural land has been consumed mostly by industrial/commercial or residential sprawl and also by construction.
Slow down of agricultural development is even more significant in case of internal agricultural conversions, which almost disappeared during the period.

4.12. Agricultural areas 2006 [% of total area]





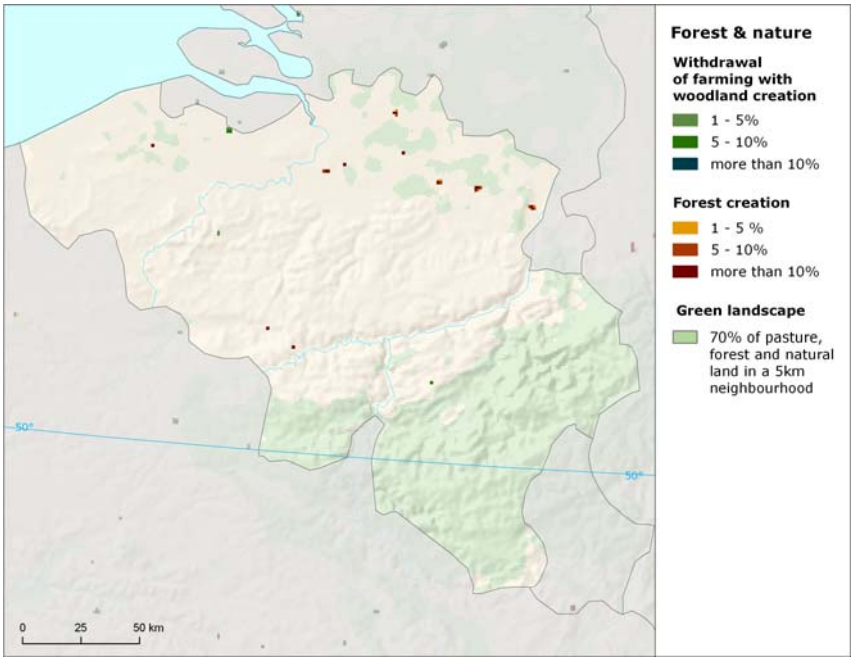
4.13. Development of agricultural areas 2000-2006 – detailed balance [ha]



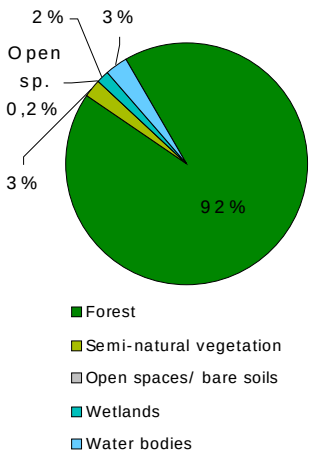
4.14. Mean annual agricultural change by class [ha/year]

Belgium

Forest & nature



5.15. Forest & nature areas 2006 [% of total area]

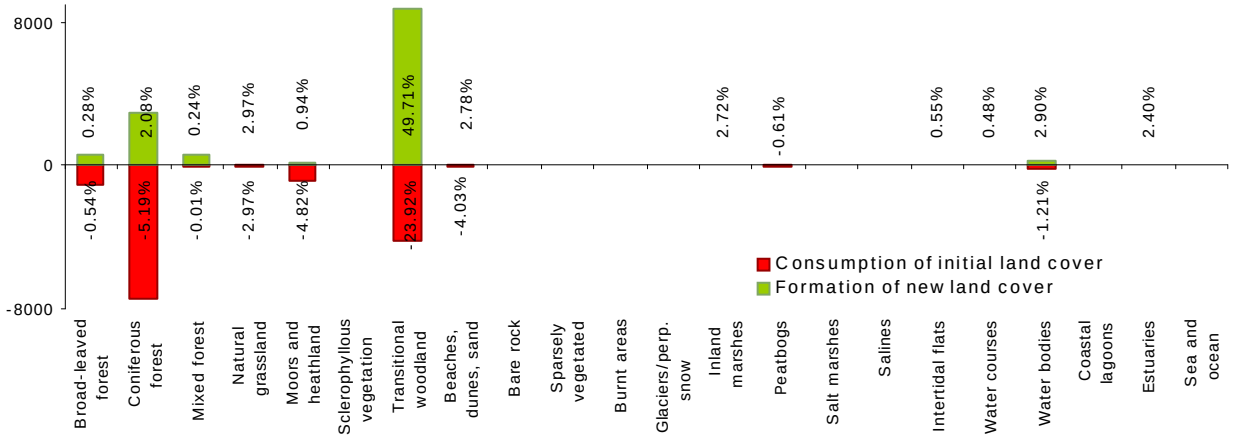


Internal forest conversions, formation of water bodies

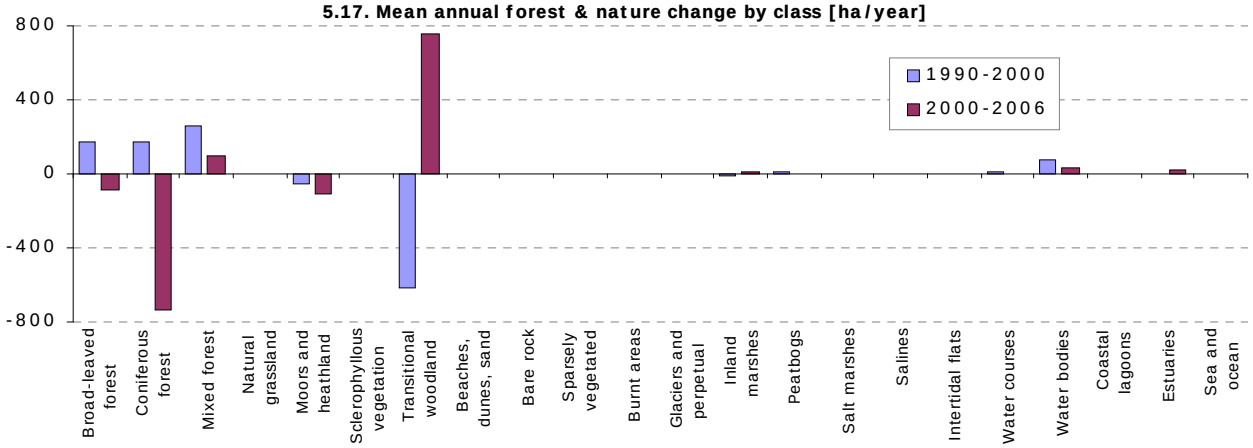
Forested land has the biggest turnover of all land cover types in Belgium; however, its net change is insignificant. Main drivers of internal changes of forested areas due to regular forestry activities are represented by recent felling and transitions and opposite conversion from transitional woodland to forest.

Development of dry semi-natural land cover is driven mainly by consumption of moors and heathland by artificial land uptake (mainly by construction and sprawl of commercial/industrial sites). On the contrary, wetlands and water bodies have positive balance of net change. The main source of their formation is the conversion of former construction and mineral extraction sites or agricultural areas to water bodies, estuaries or inland marshes.

5.16. Development of forest & nature areas 2000-2006 – detailed balance [ha]



5.17. Mean annual forest & nature change by class [ha/year]

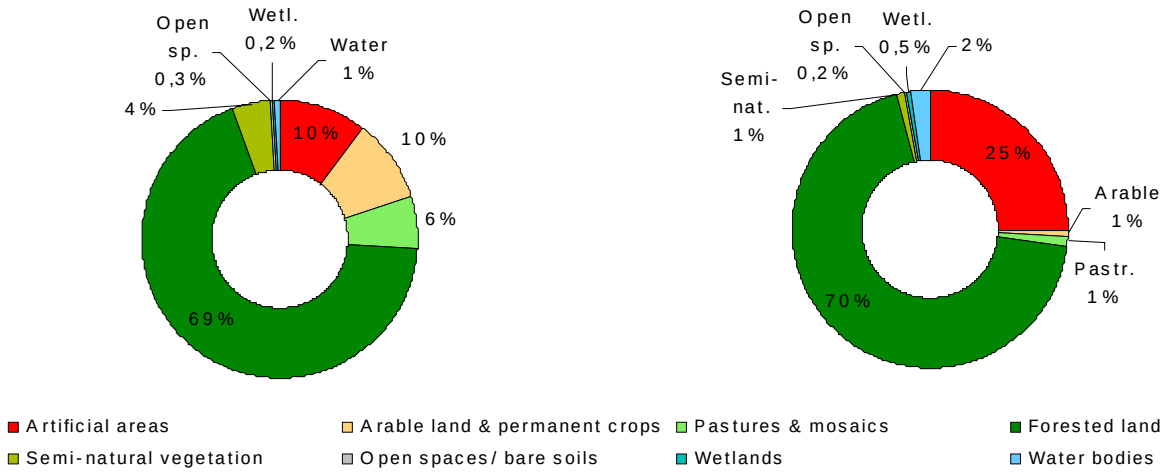


Belgium

Annex: Land cover flows and trends

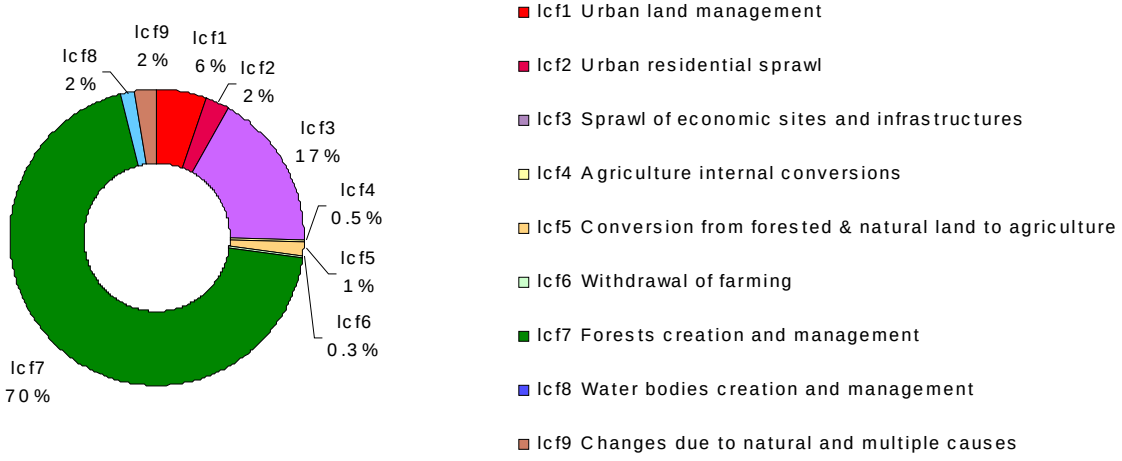
Land cover flows 2000-2006

6.18. Consumption of land cover 2000-2006 [% of total change area]



6.19. Formation of land cover 2000-2006 [% of total change area]

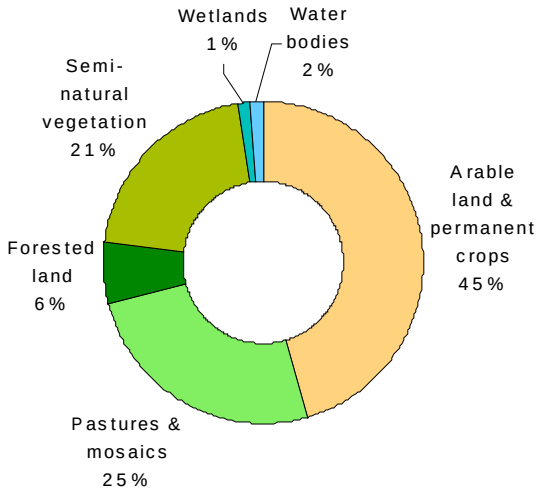
6.20. Drivers of change (LC FLOWS) 2000-2006 [% of total change area]



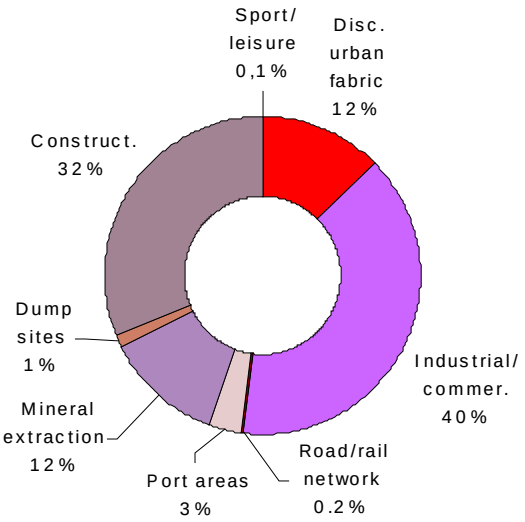
Belgium

Artificial areas

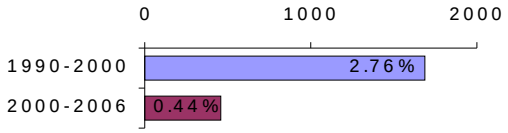
7.21. Consumption by artificial land take 2000-2006 [% of total]



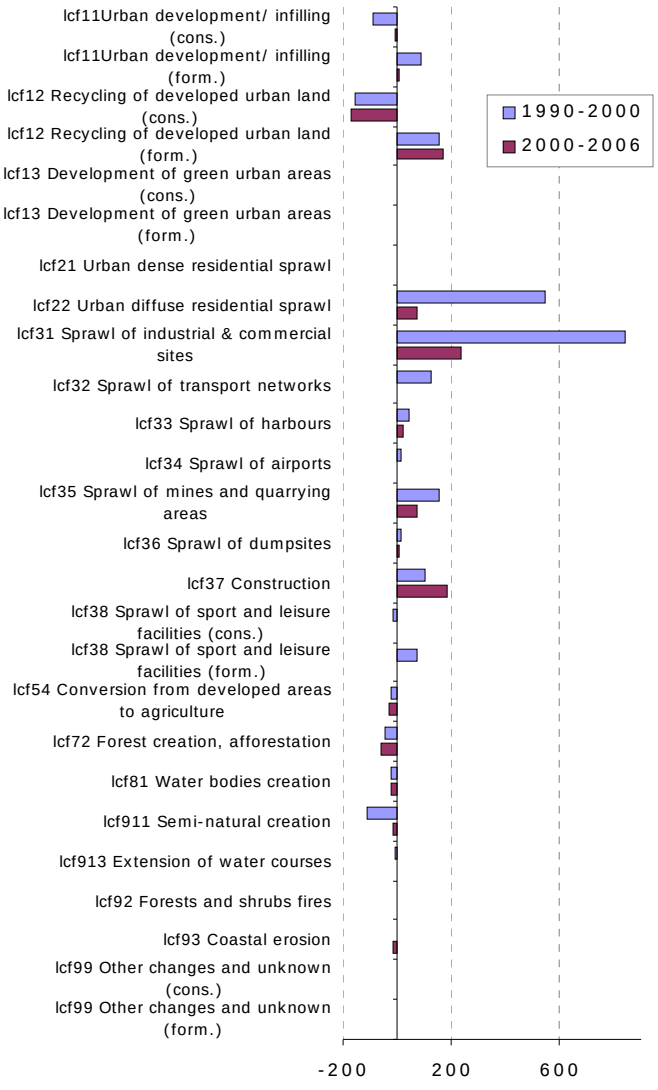
7.22. Formation by artificial land take 2000-2006 [% of total]



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



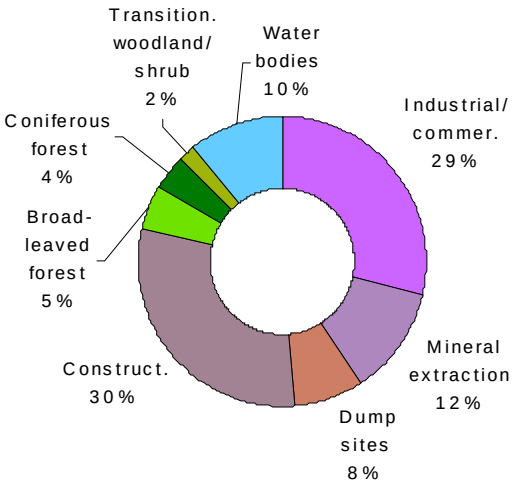
7.24. Artificial development by change drivers (LC FLOWS) [ha/year]



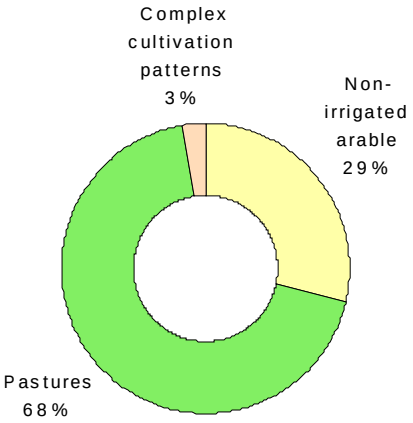
Belgium

Agriculture

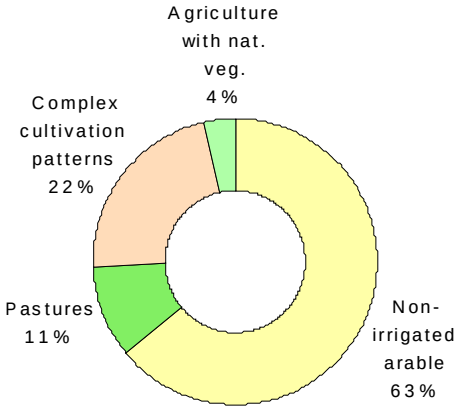
8.25. LC consumed by agriculture 2000-2006 [% of total]



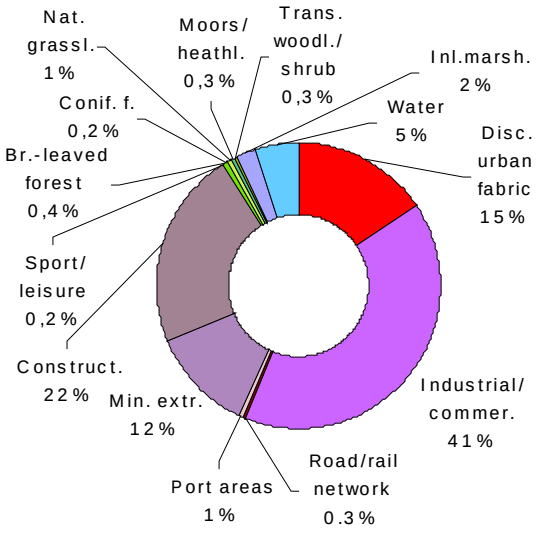
8.26. Formation of agricultural land from non-agriculture 2000-2006 [% of total]



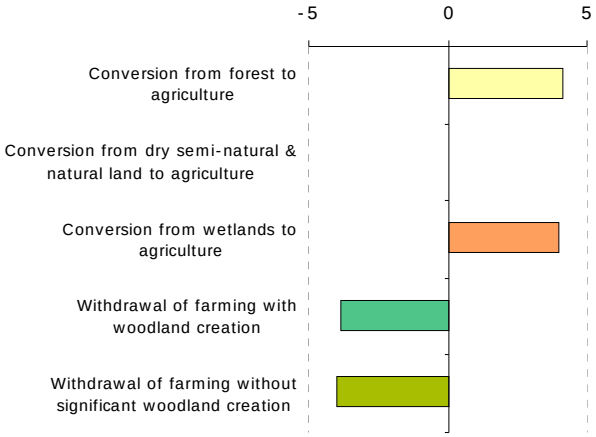
8.27. Consumption of agricultural land by non-agriculture 2000-2006 [% of total]



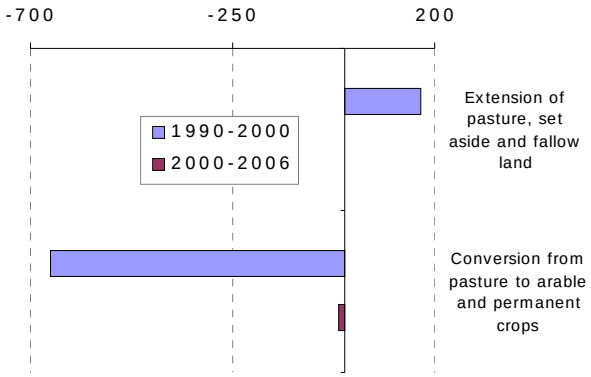
8.28. Formation of non-agricultural land from agriculture 2000-2006 [% of total]



8.29. Main annual conversions between agriculture and forests & semi-natural land 2000-2006 [ha/year]

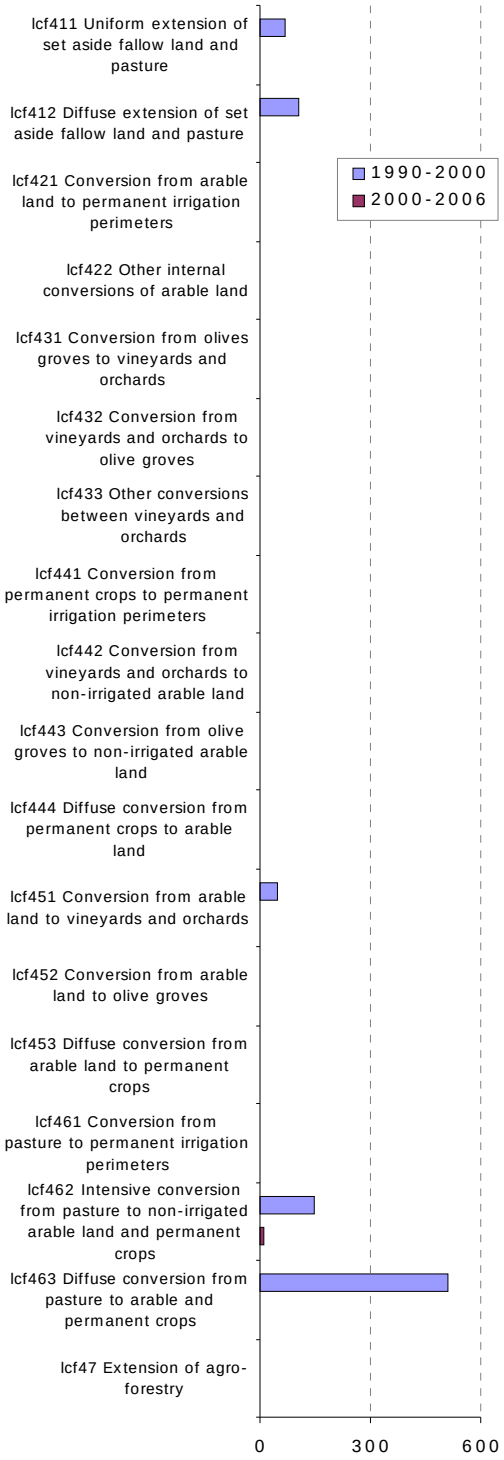


8.30. Mean annual conversion between arable land and pasture [ha/year]

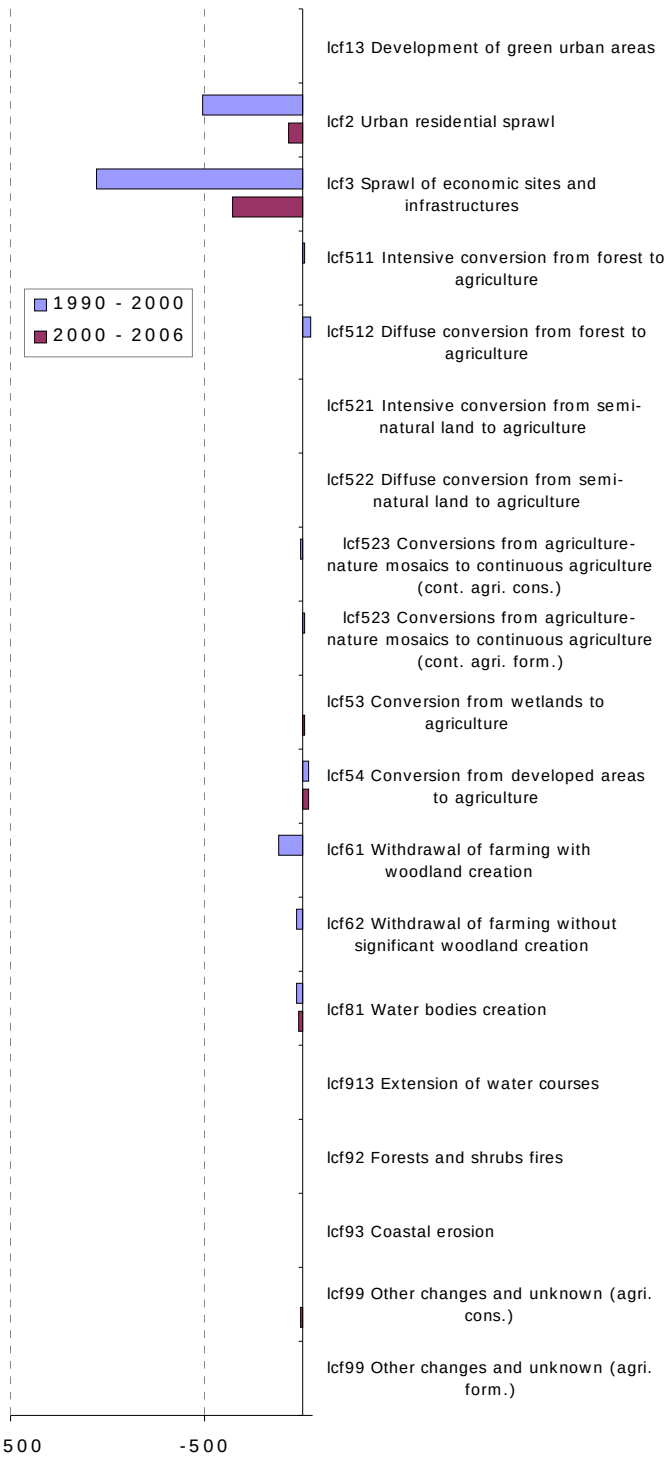


Belgium

9.31. Mean annual agriculture internal conversions [ha/year]



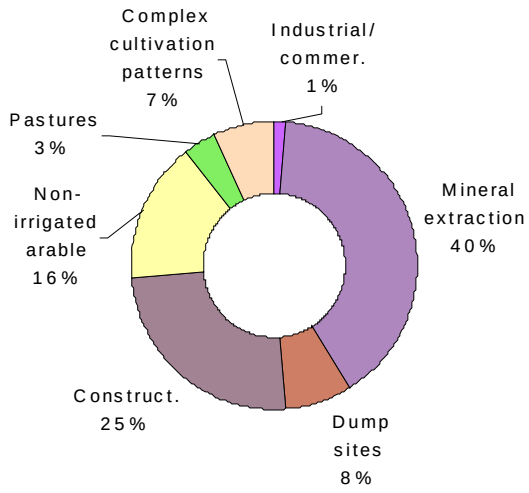
9.32. Mean annual conversions between agriculture and other LC types [ha/year]



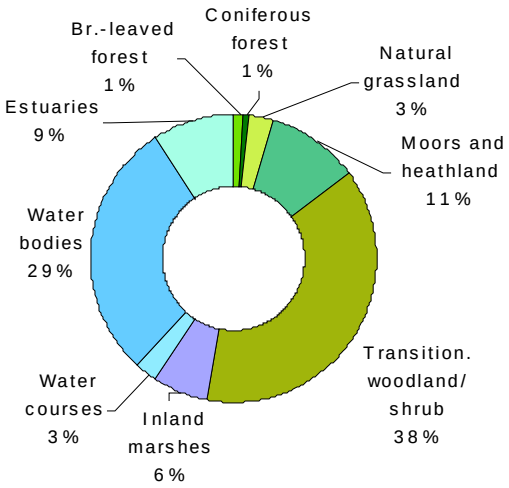
Belgium

Forest & nature

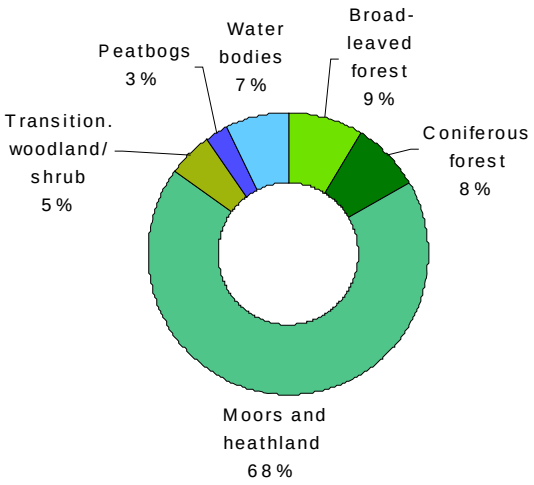
10.33. LC consumed by forest & nature 2000-2006 [% of total]



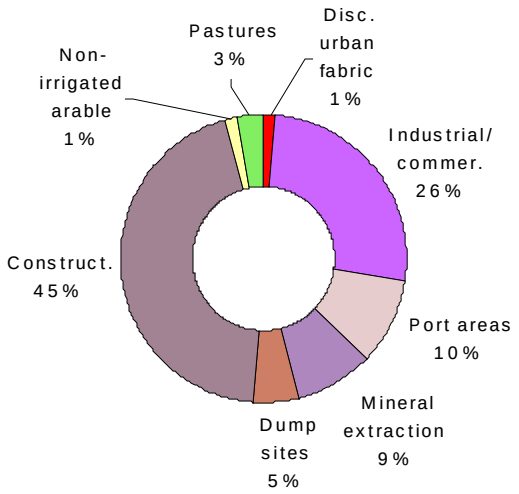
10.34. Formation of forest & nature land from non-forest /nature 2000-2006 [% of total]



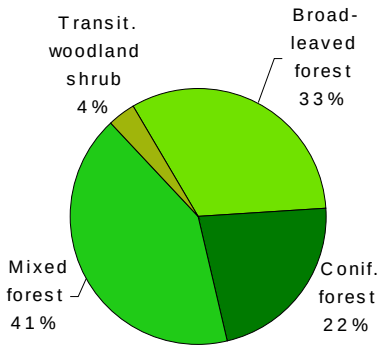
10.35. Consumption of forest & nature land by non-forest /nature 2000-2006 [% of total]



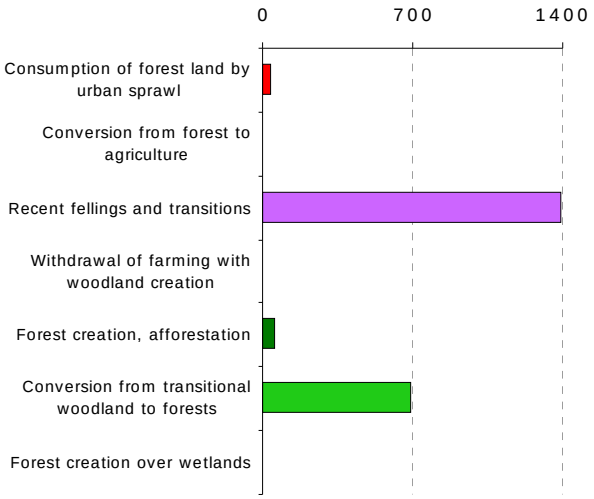
10.36. Formation of non-forest /nature land from forest & nature 2000-2006 [% of total]



10.37. Forested land 2006 [% of total area]

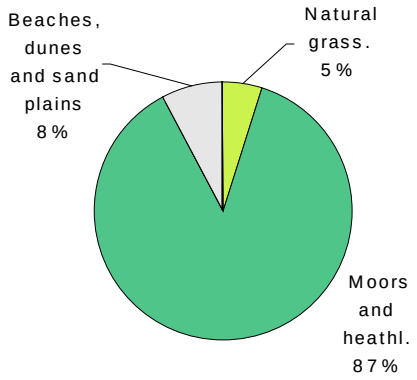


10.38. Main trends in woodland & forests consumption/formation 2000-2006 [ha/year]

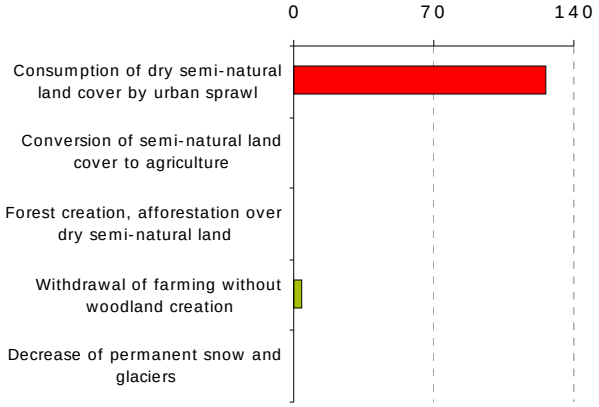


Belgium

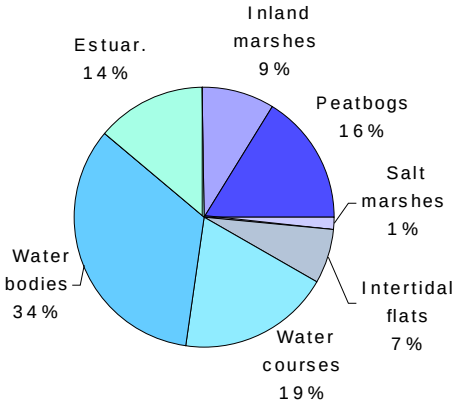
11.39. Dry semi-natural areas 2006 [% of total area]



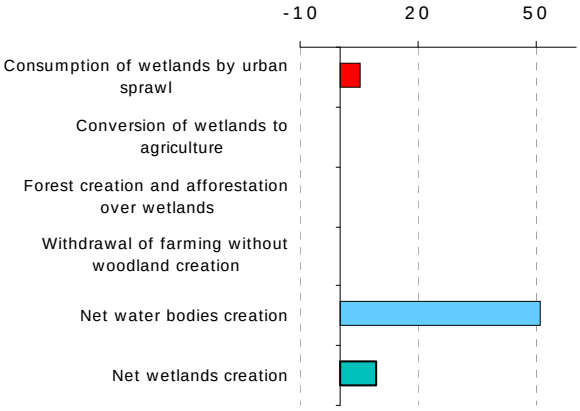
11.40. Main trends in dry semi-natural land consumption/formation 2000-2006 [ha/year]



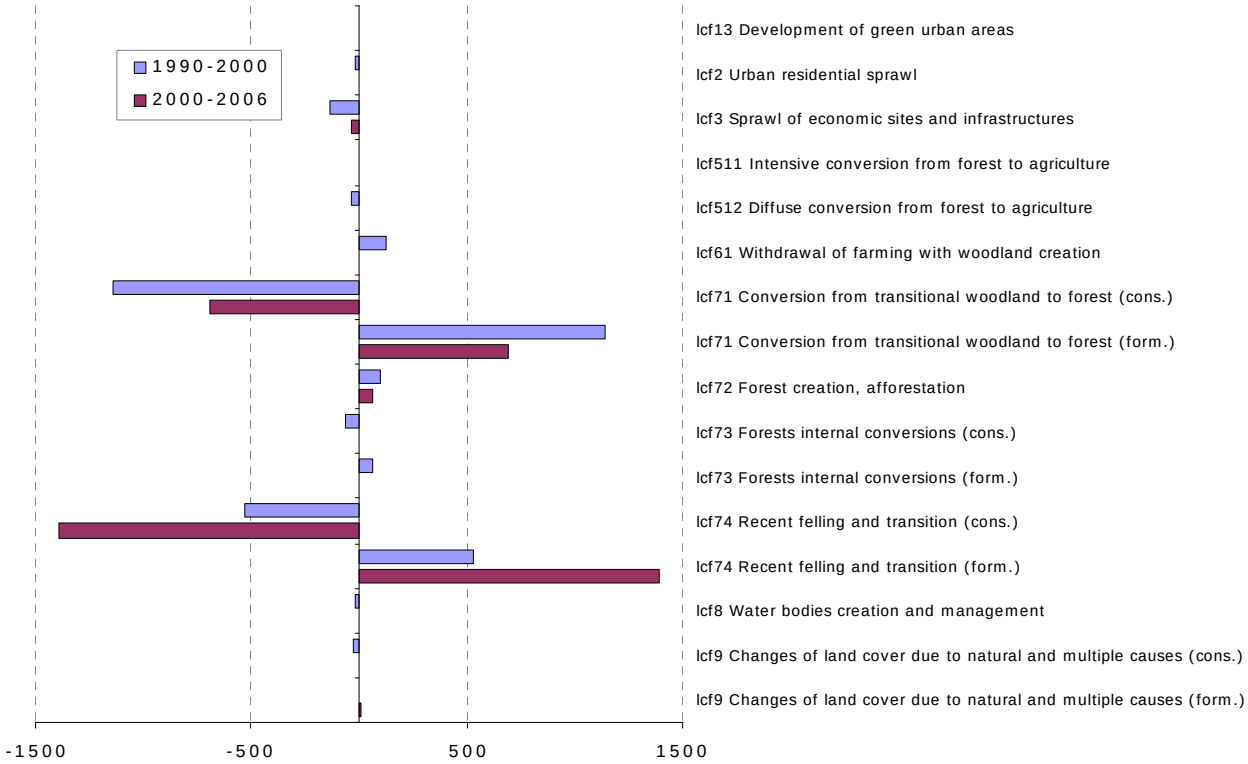
11.41. Wetlands & water 2006 [% of total area]



11.42. Main trends in wetlands & water consumption/formation 2000-2006 [ha/year]

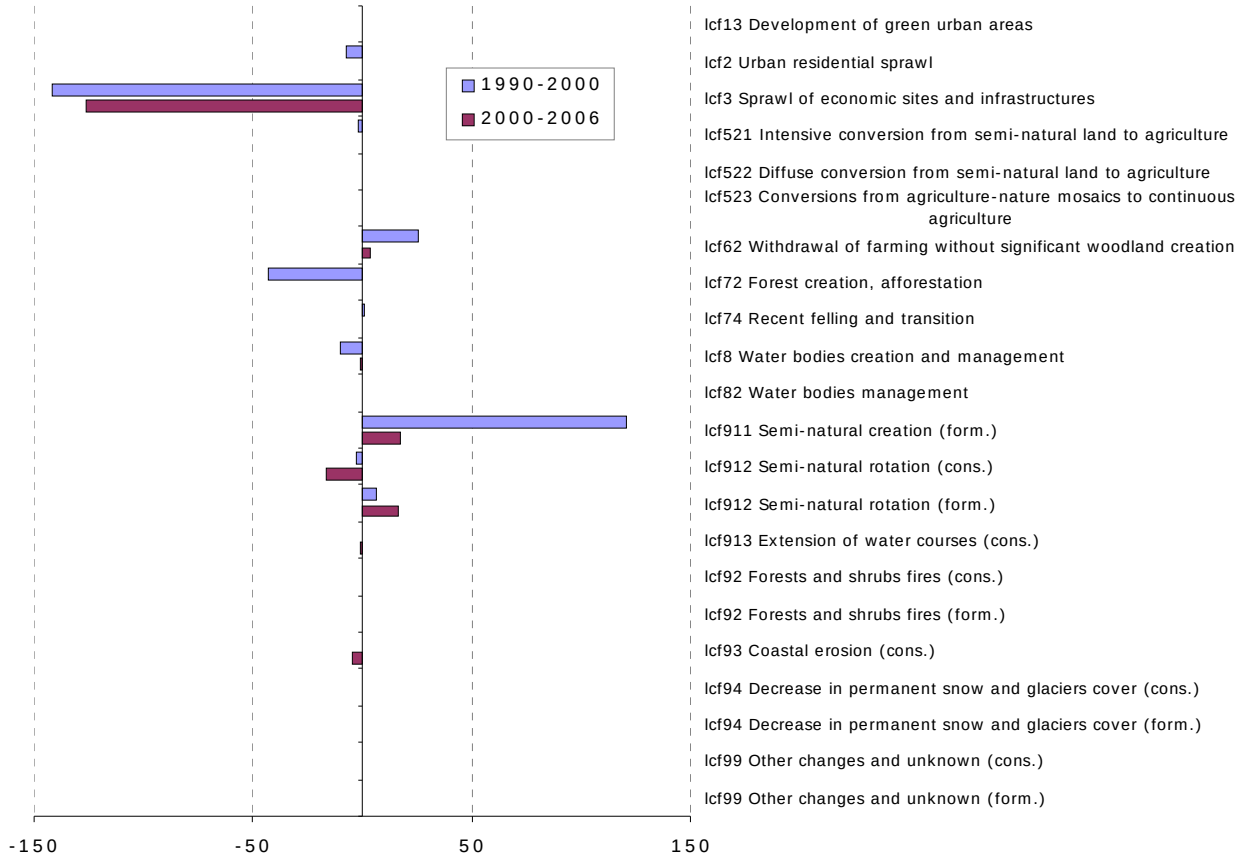


11.43. Mean annual conversions of forest & other woodland [ha/year]

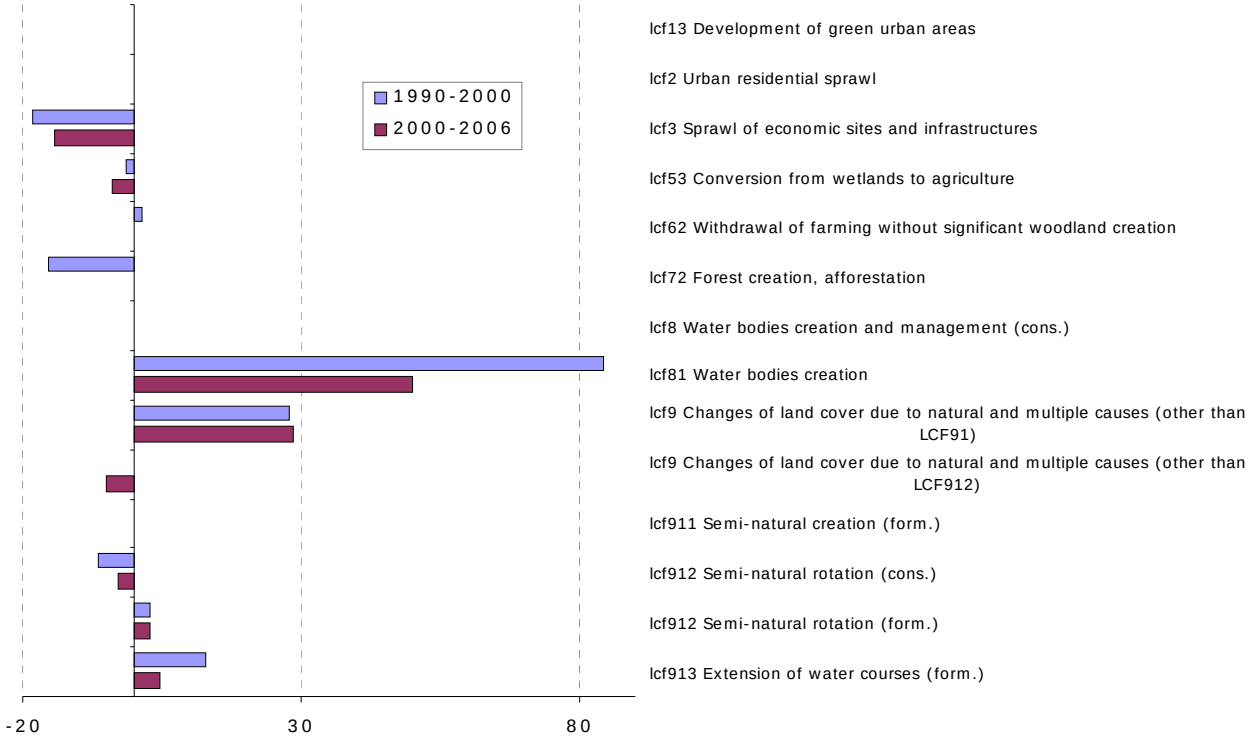


Belgium

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



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



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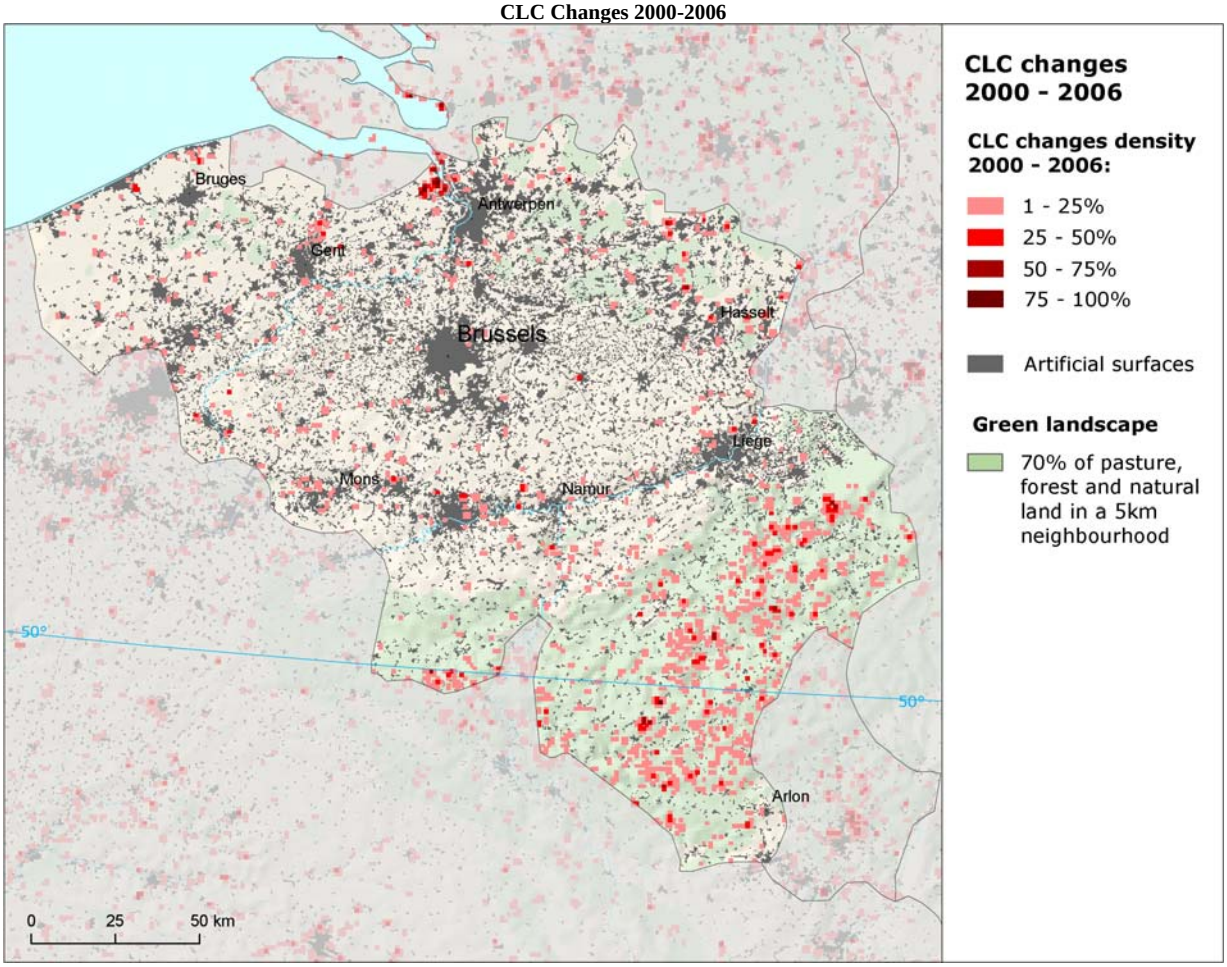
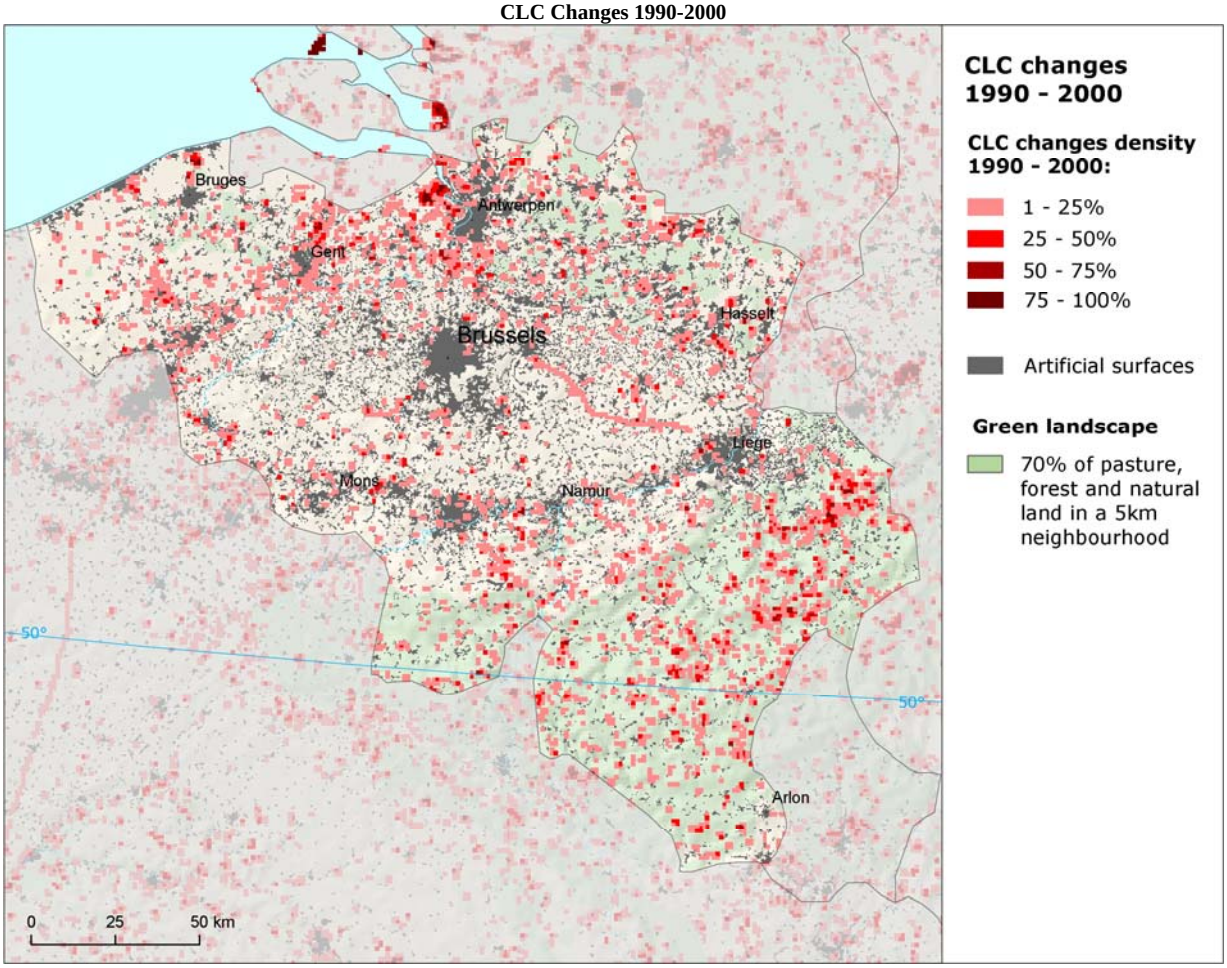
CLC Changes 2000-2006



CLC Changes 1990-2000



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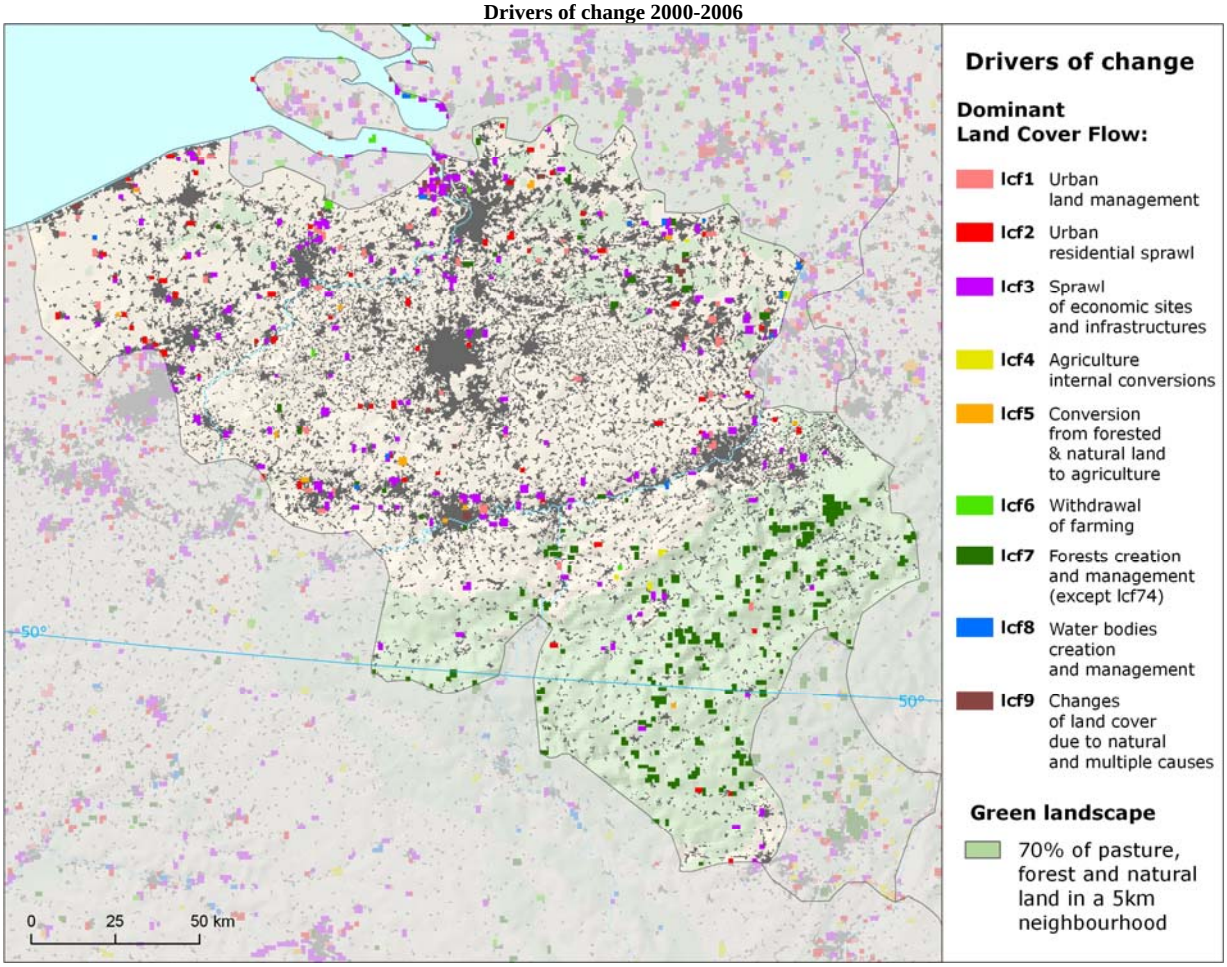
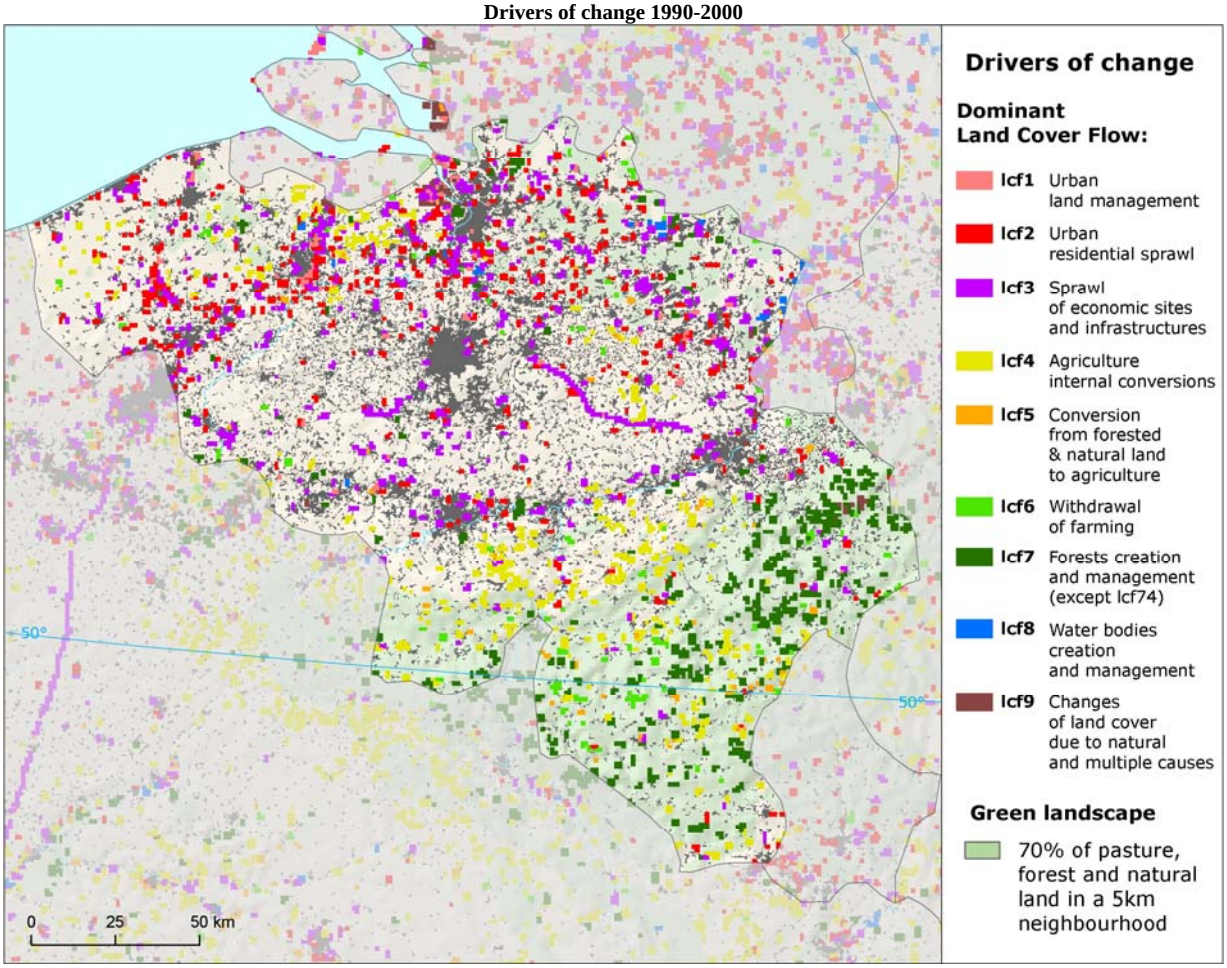
Drivers of change 2000-2006



Drivers of change 1990-2000



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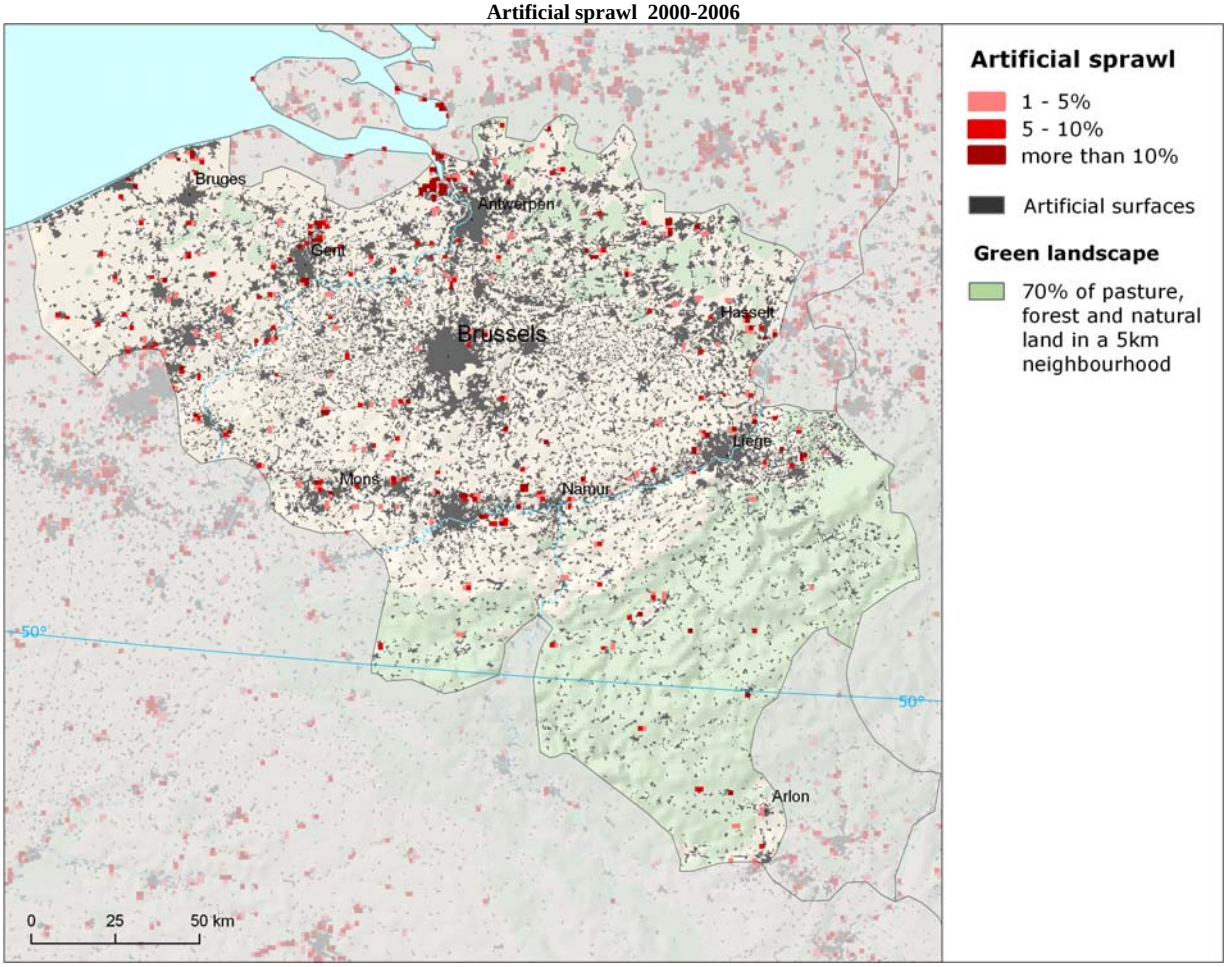
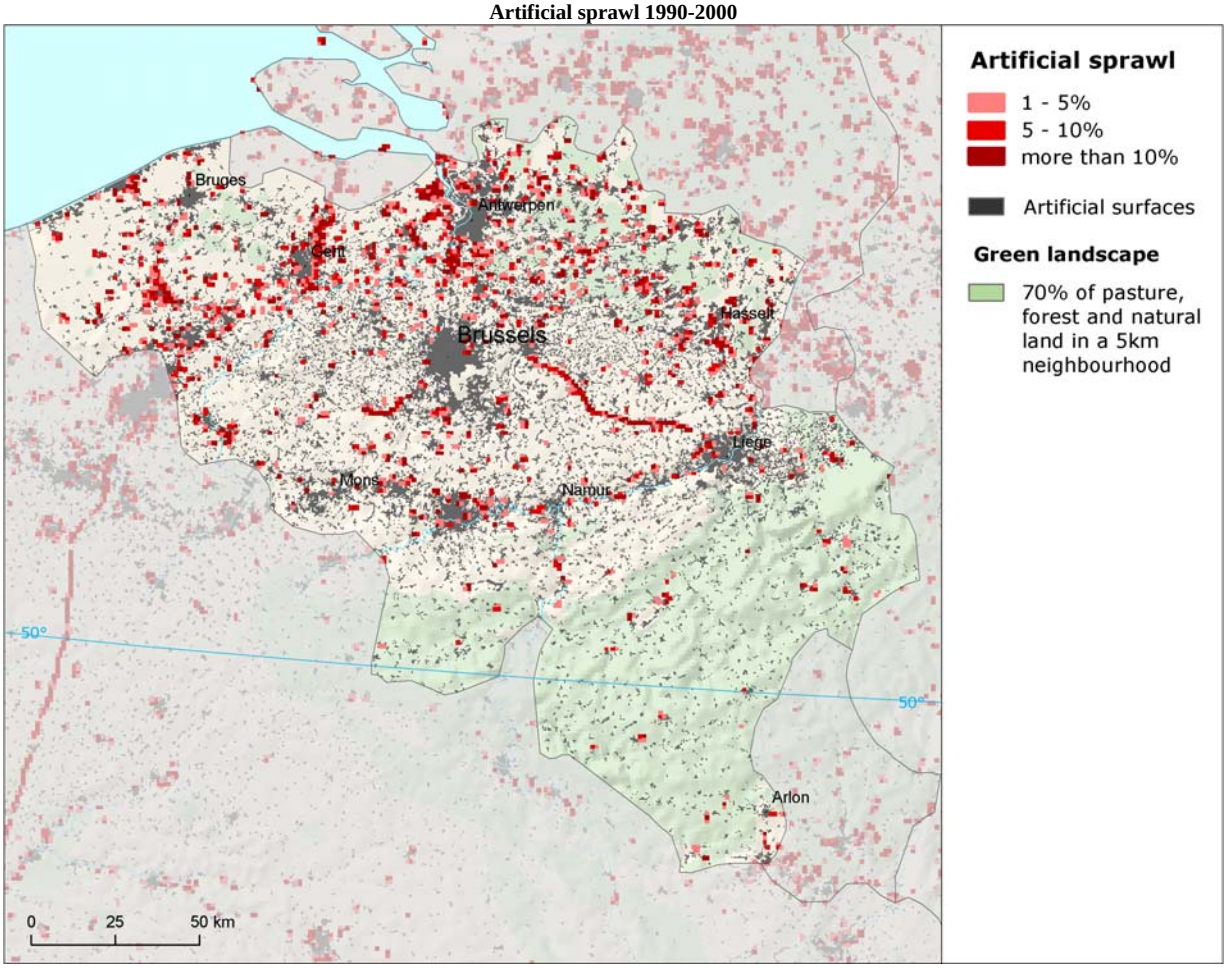
Artificial sprawl 2000-2006



Artificial sprawl 1990-2000



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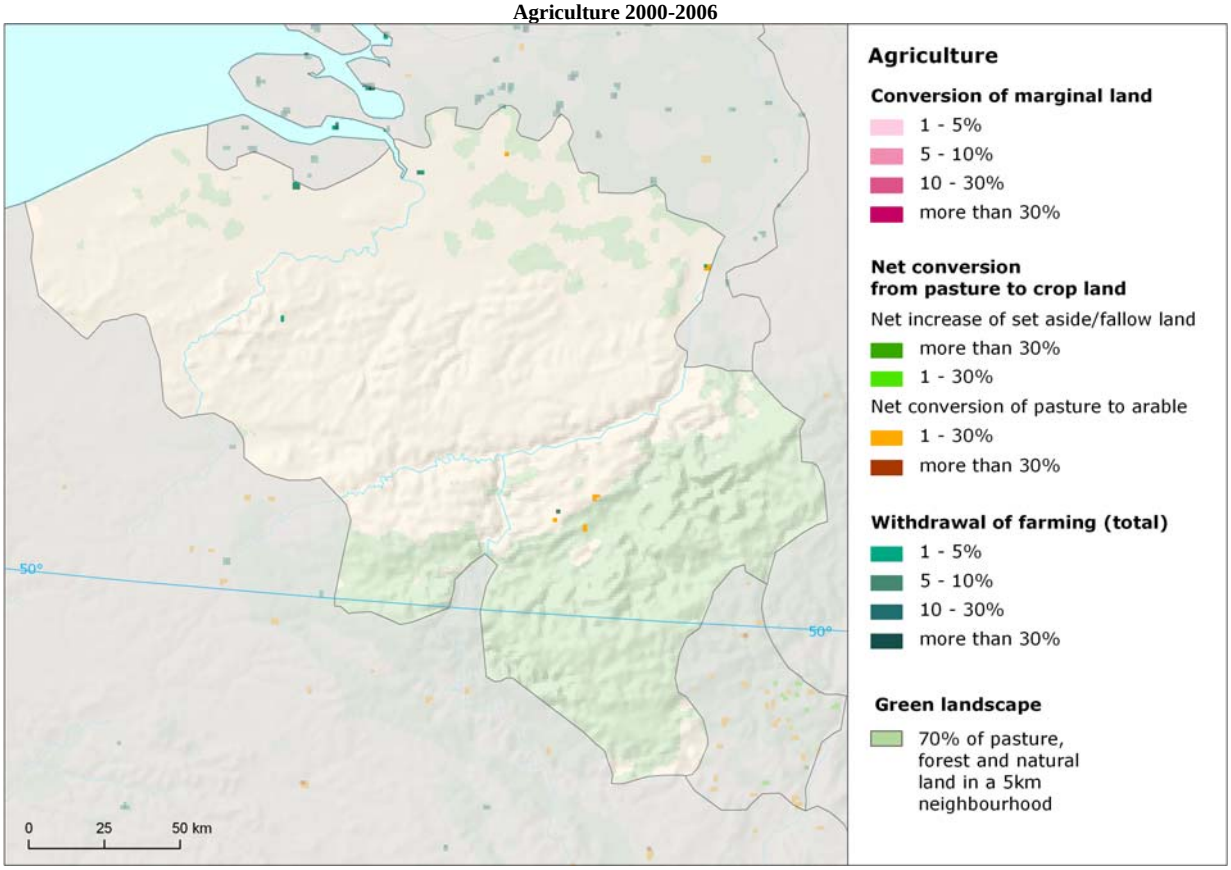
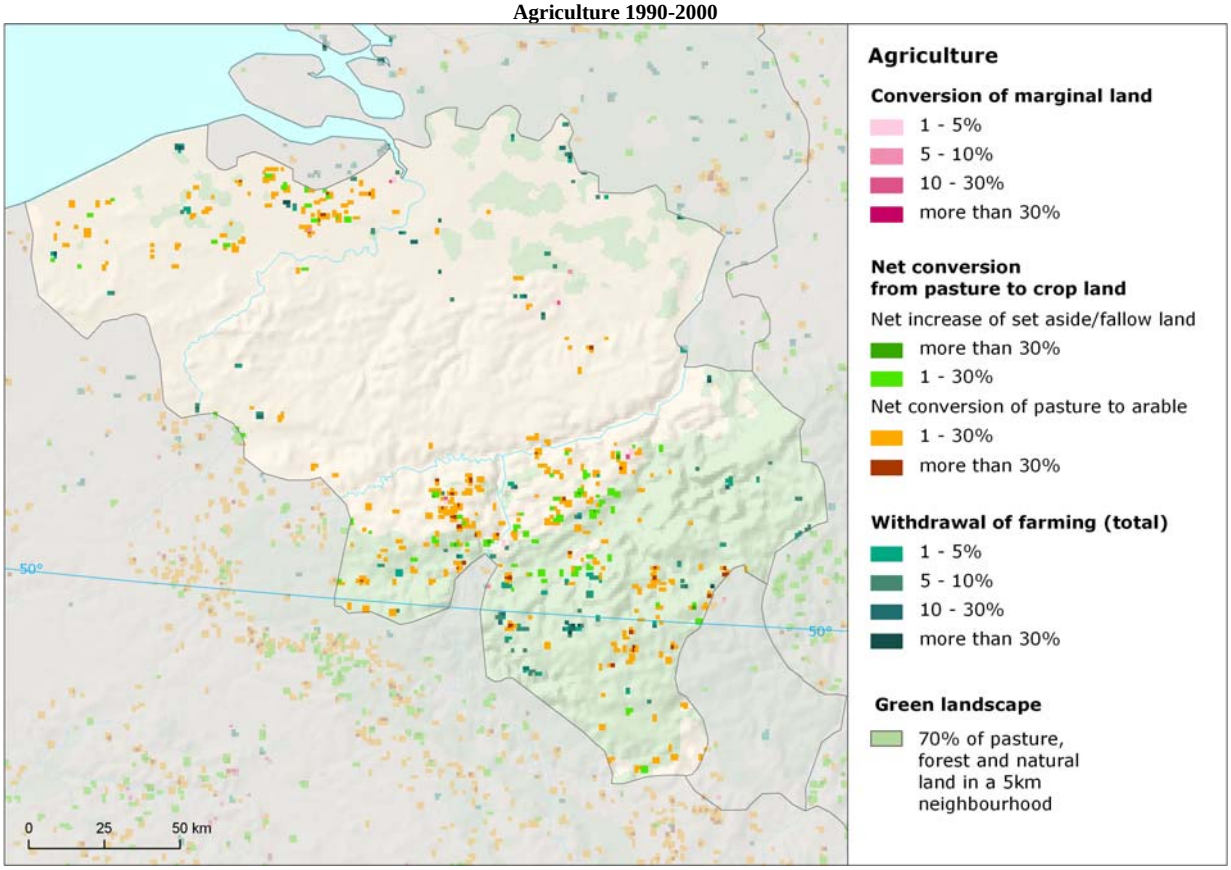
Agriculture 2000-2006



Agriculture 1990-2000



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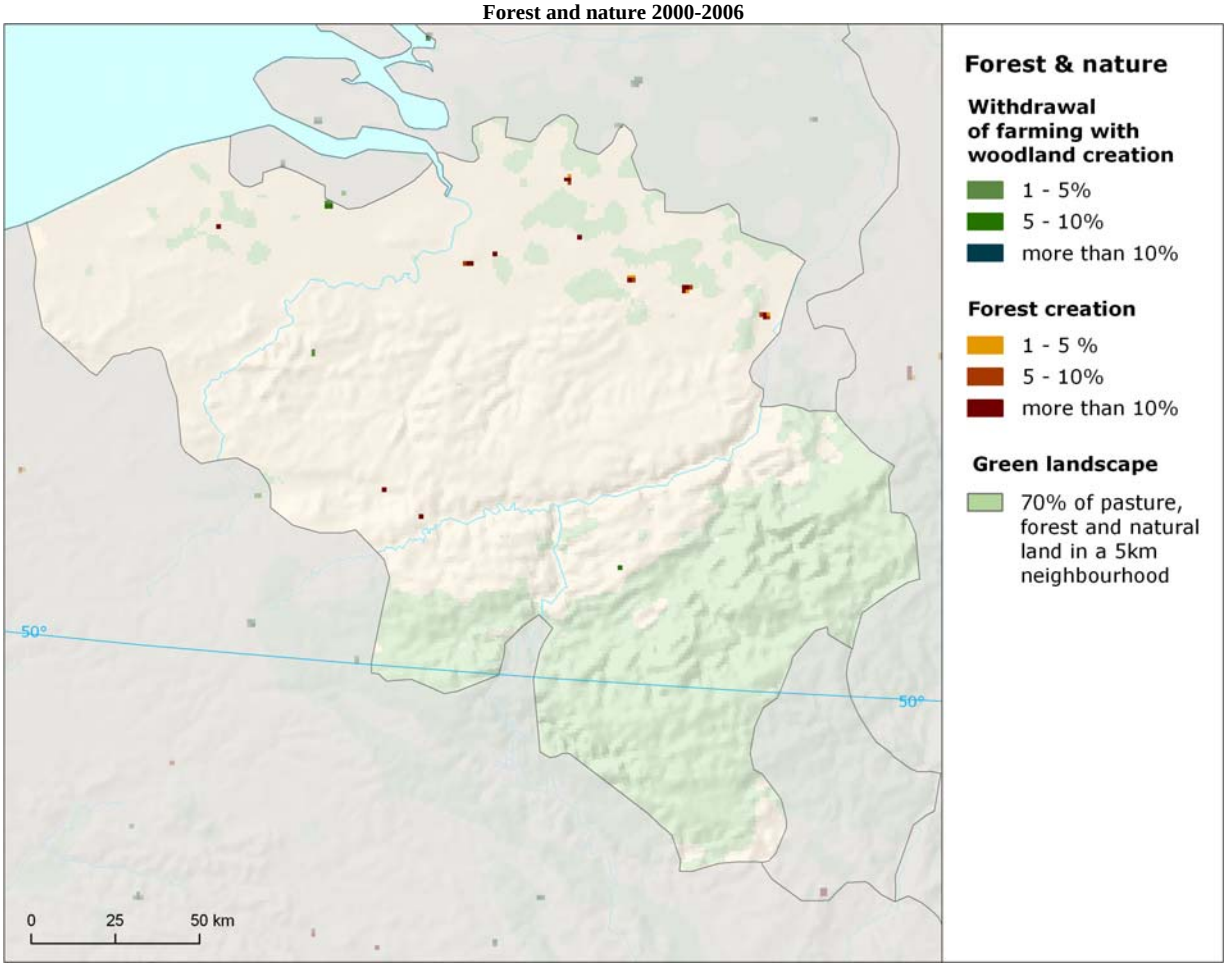
Forest and nature 2000-2006



Forest and nature 1990-2000