

Land cover 2012



Slovenia



September 2017



Land cover 2012

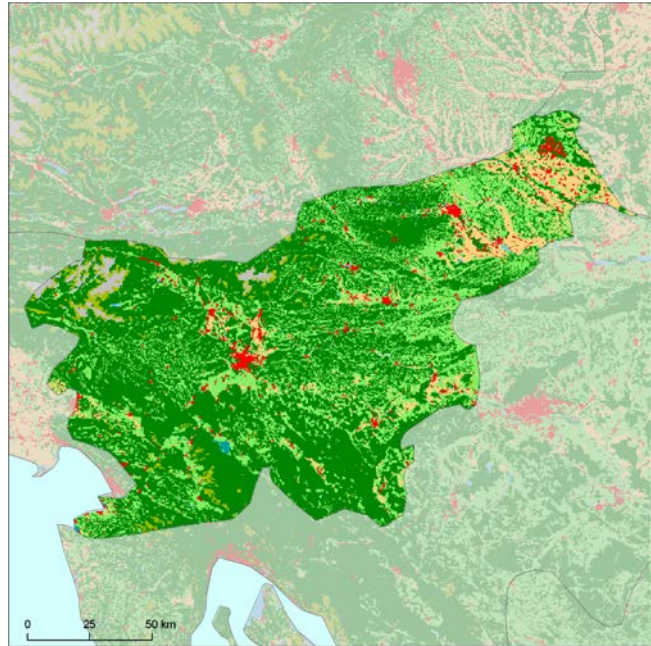
Overview of land cover & change 2006-2012

In the long term, Slovenia is a country with one of the lowest land cover change dynamics in Europe and, when compared to the previous period 2000-2006, this dynamic become even lower.

Both internal forest conversions and sprawl of economic sites and infrastructures, which were observed during the previous period as major drivers of the land cover development in Slovenia, have significantly slowed down in the 2006-2012 period. On the other hand, there occurs some amount of urban land management, which was not present in 2000-2006. This exchange is connected mostly with the construction of the highway segment between Maribor and Murska Sobota in the north-eastern part of the country.

The sprawl of economic sites and infrastructures is the most important driver of change in the country; however, considering its intensity, it is rather insignificant, in comparison with the European average. The annual land take rate in Slovenia is very low, with 0.15% it is one of the lowest among European countries. The sprawl, represented mainly by construction, was significantly stronger during the previous period 2000-2006. However, it has to be mentioned, that considerable part of this construction was also connected with the highway construction in the north-east of the country.

The intensity of the most significant flow from previous period – forest creation and management – shows a rapid decrease and this change covers comparable area now as the above mentioned sprawl of economic sites and infrastructures.

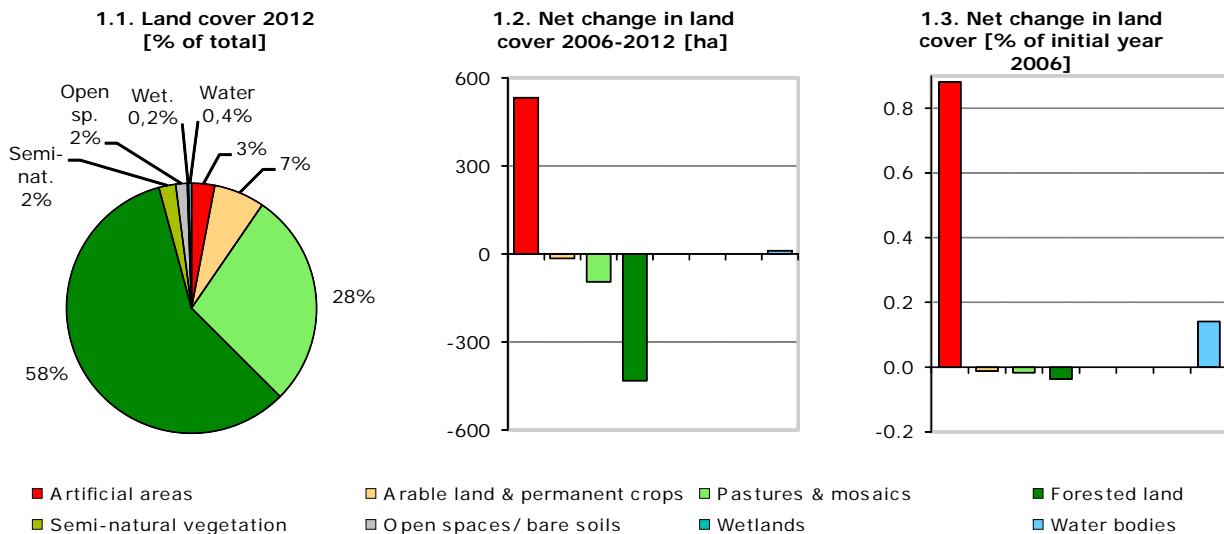


CORINE Land Cover types - 2012

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

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 Slovenia: 6

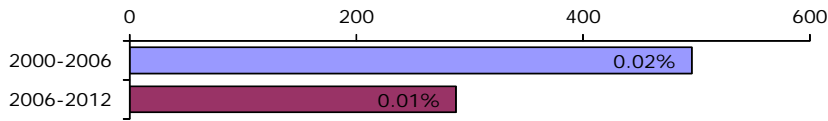


Summary balance table 2006-2012

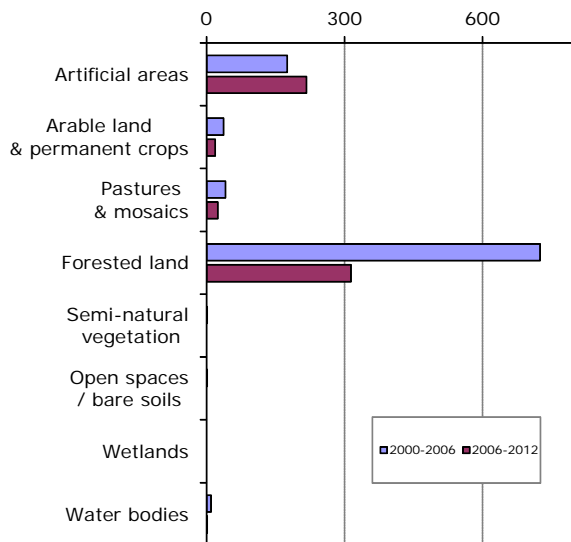
	Artificial areas	Arable land & permanent crops	Pastures & mosaics	Forested land	Semi-natural vegetation	Open spaces/ bare soils	Wetlands	Water bodies	TOTAL [hundreds ha]
Land cover 2006	604	1337	5685	11874	444	303	32	78	20357
Consumption of initial LC	3.9	0.7	1.2	11.6	0.0	0.0	0.0	0.0	17
Formation of new LC	9.2	0.5	0.3	7.3	0.0	0.0	0.0	0.1	17
Net Formation of LC	5.3	-0.2	-1.0	-4.3	0.0	0.0	0.0	0.1	0
<i>Net formation as % of initial year</i>	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Total turnover of LC	13.0	1.1	1.5	18.8	0.0	0.0	0.0	0.1	35
<i>Total turnover as % of initial year</i>	2.2	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.2
Land cover 2012	609	1337	5684	11869	444	303	32	78	20357

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

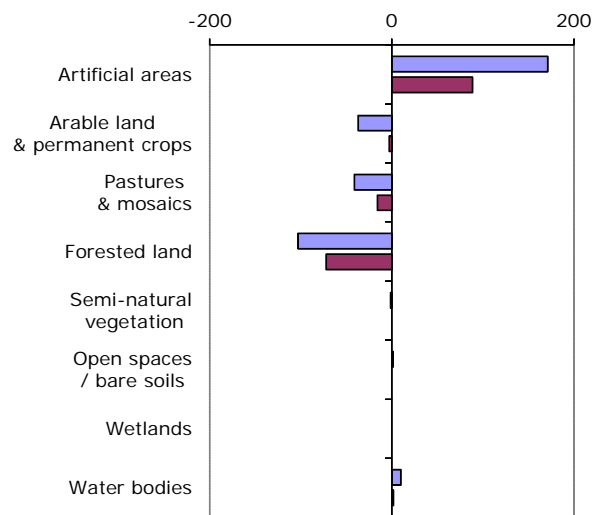
2.4. Annual land cover change
[ha/year, % of total area]



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

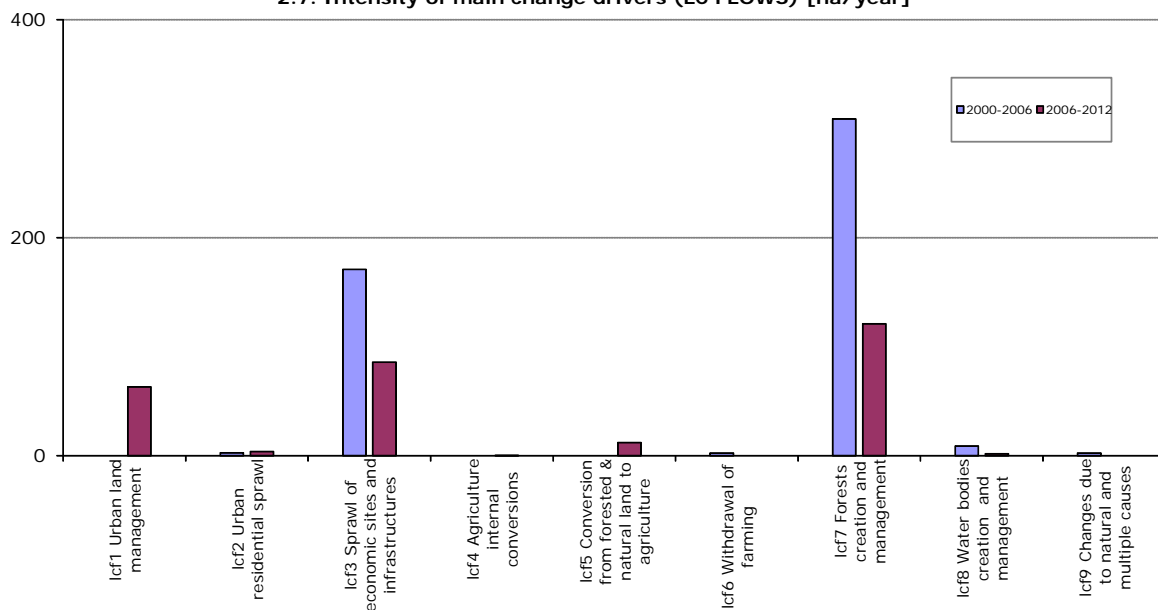


2.6. Net annual change of LC types [ha/year]

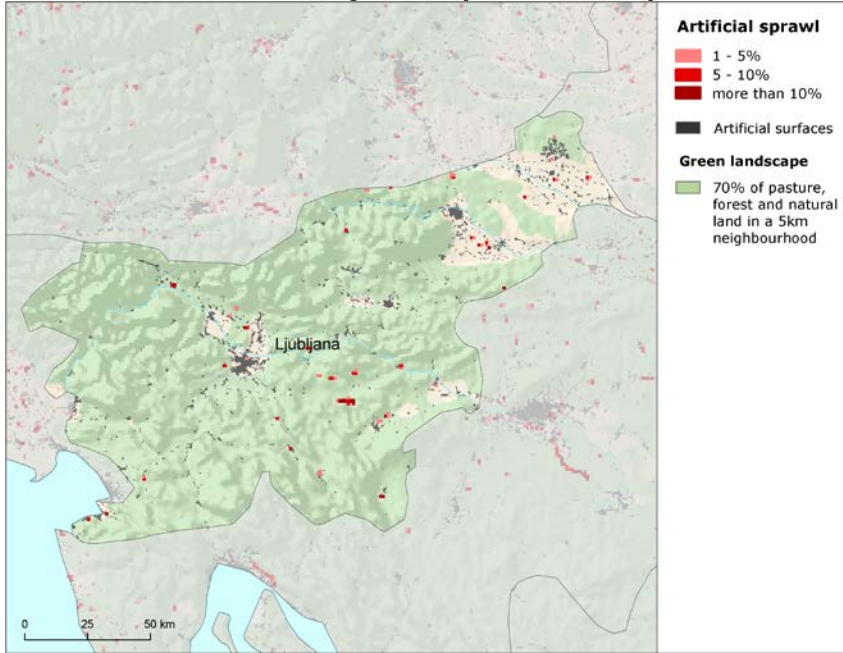


Summary trend figures		
	2000-2006	2006-2012
Annual land cover change [ha/year]	496	288
Annual land cover change as % of initial year	0.02%	0.01%
Land uptake by artificial development as mean annual change [ha/year]	174	90
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]	75	29
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]	-2	11
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]	0	0
Forest & other woodland net formation as mean annual change [ha/year]	-103	-72
Dry semi-natural land cover net formation as mean annual change [ha/year]	0	0
Wetlands & water bodies net formation as mean annual change [ha/year]	10	2

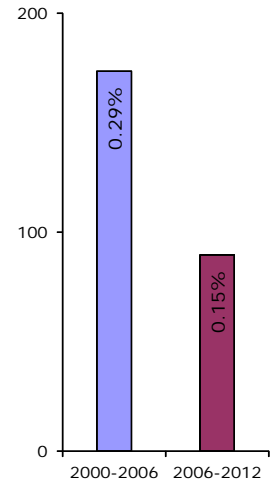
2.7. Intensity of main change drivers (LC FLOWS) [ha/year]



Artificial surfaces sprawl (2006-2012)



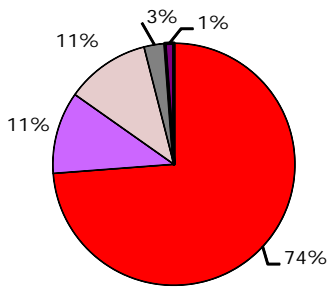
3.8. Artificial land take [ha/year, % of initial year]



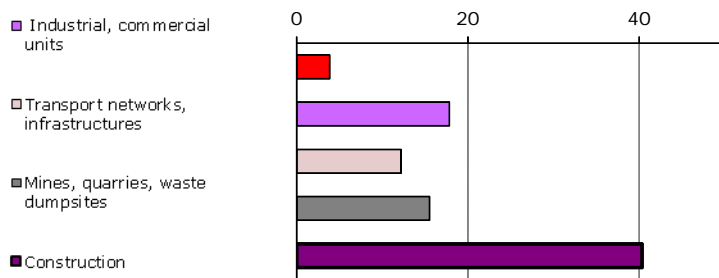
Slow down after highway construction

The artificial land take in Slovenia is very slow, compared to other European countries. There was a culmination of the sprawl rate (driven mainly by highway construction in the north-eastern part of the country) during the previous period followed by a rapid decrease in the 2006-2012 period. The distribution of the sprawl shows almost no sprawl around the capital city of Ljubljana. The patches of sprawl are scattered over the central and north-eastern part of the country. The construction is the most frequent compound of the land take; however, construction sites are quickly consumed and transformed into other artificial classes, mostly transportation network units. This process is documented by a high rate of recycling of developed urban land. The overall change balance of urban land cover classes shows increased formation of road and transportation network and industrial and commercial areas. In contrast, construction sites show negative balance, with prevailing consumption, which can indicate further slowdown of artificial development in the future.

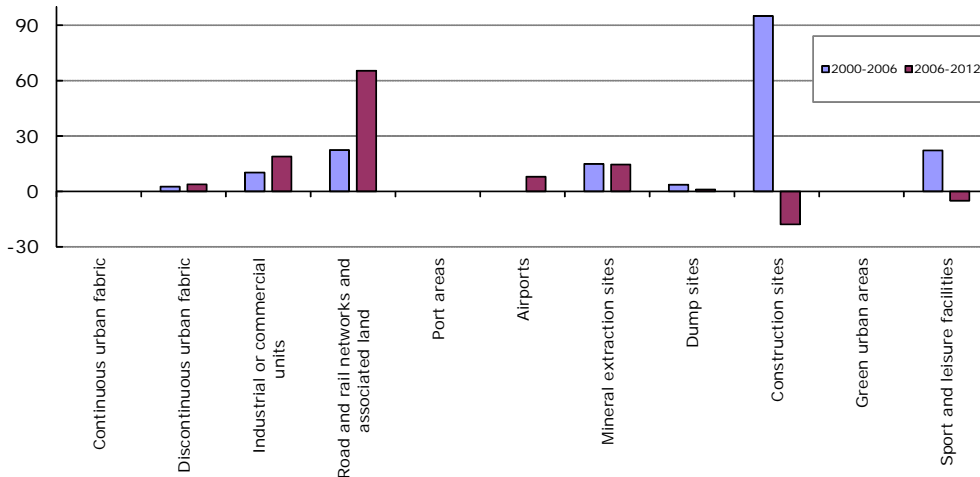
3.9. Artificial surfaces 2012 [% of total area]



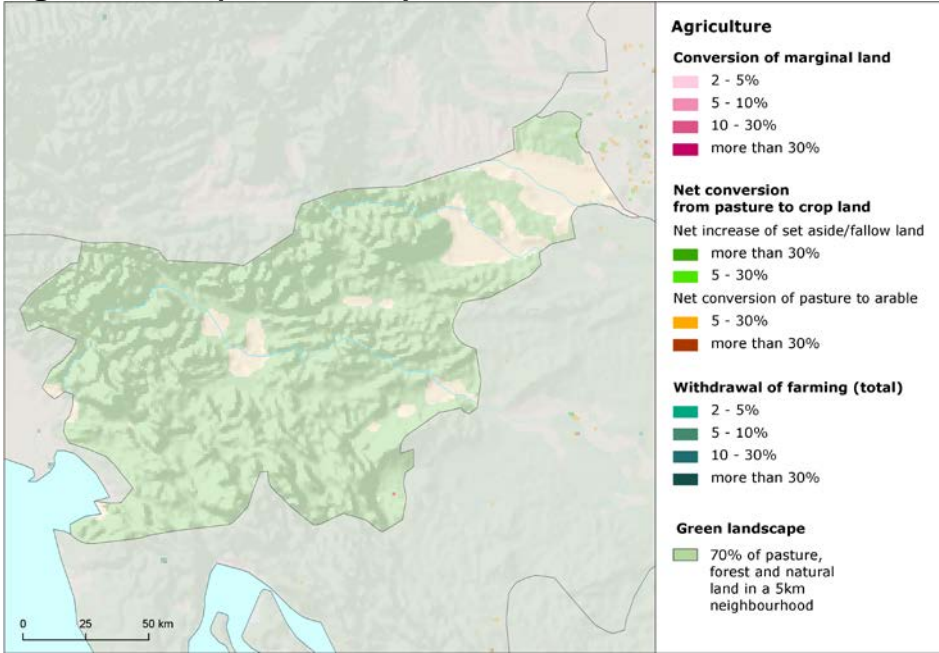
3.10. Artificial land take 2006-2012 [ha/year]



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



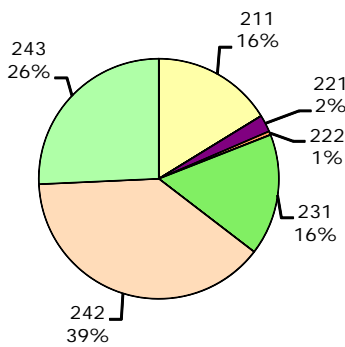
Agriculture (2006-2012)



Agricultural land without exchange

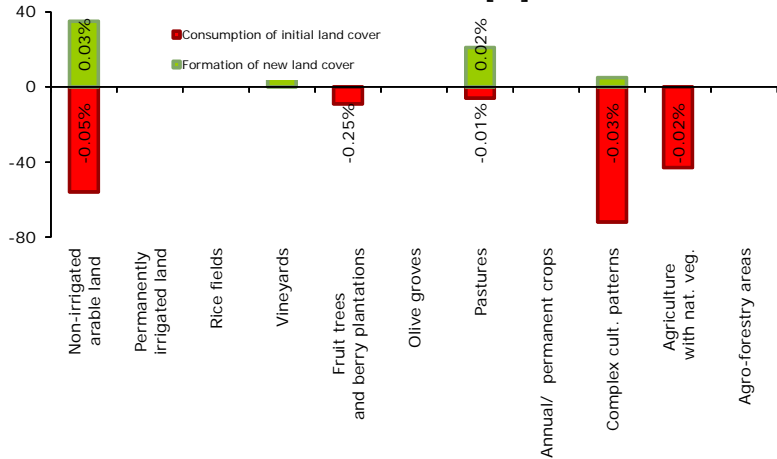
The Slovenian agricultural land is represented mostly by complex cultivation patterns, agro-natural areas and pastures. There was no significant development of agricultural land observed in the period 2006-2012 in Slovenia. The situation was similar already during both previous periods 1990-2000 and 2000-2006. The consumption of arable land, which was visible during the previous period, does not occur any more in 2006-2012 and also the amount of internal agricultural flows is negligible. The only change which influences the amount of agricultural land in Slovenia is the consumption of mainly complex cultivation patterns area by urban sprawl, mostly by the sprawl of economic sites and infrastructures.

4.12. Agricultural areas 2012 [% of total area]

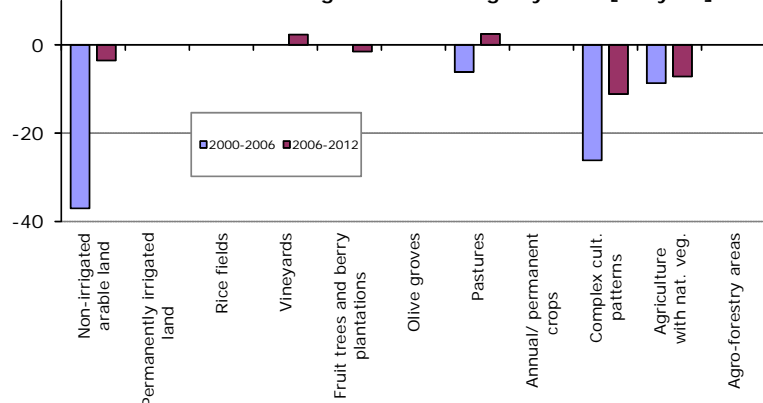


- 211 Non-irrigated arable land
- 212 Permanently irrigated land
- 213 Rice fields
- 221 Vineyards
- 222 Fruit trees and berry plantations
- 223 Olive groves
- 231 Pastures
- 241 Annual crops associated with permanent crops
- 242 Complex cultivation patterns
- 243 Agriculture land with significant areas of natural vegetation
- 244 Agro-forestry areas

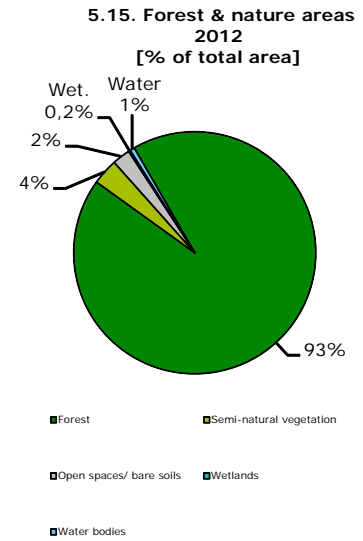
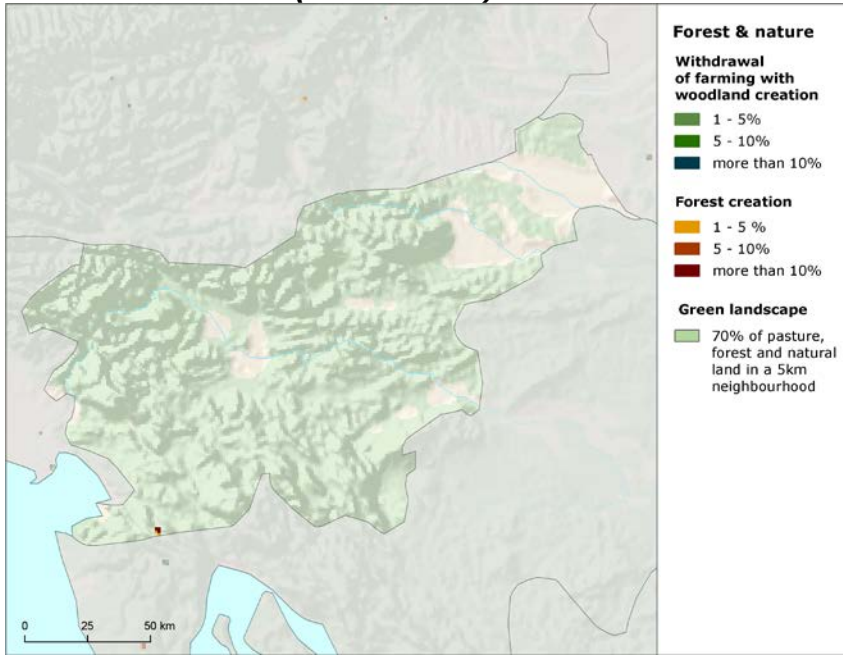
4.13. Development of agricultural areas 2006-2012 – detailed balance [ha]



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

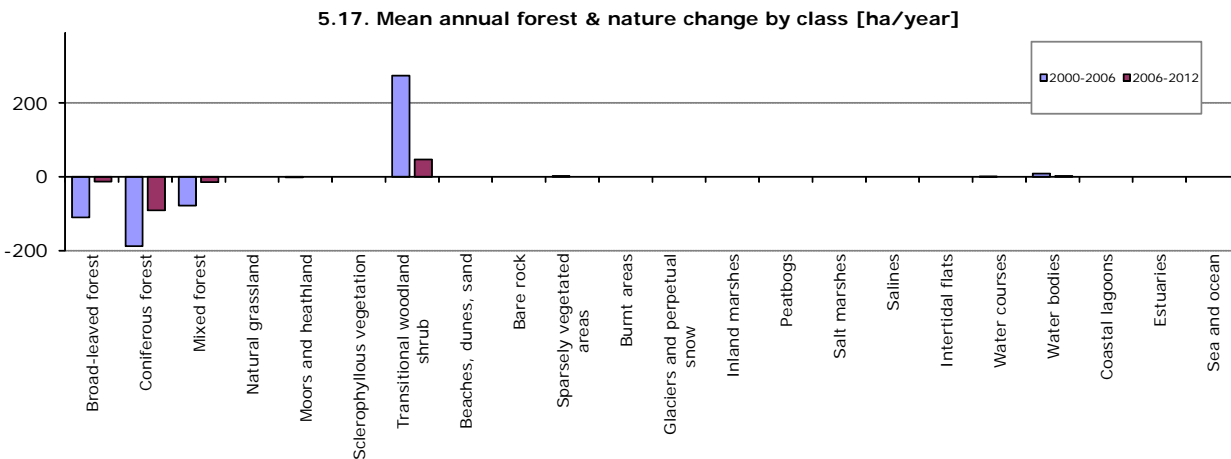
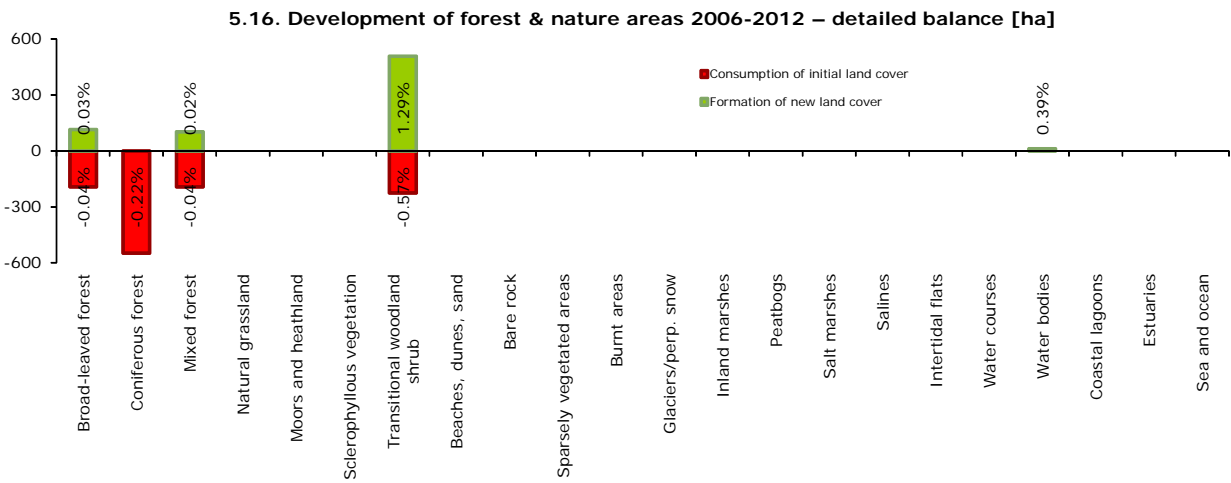


Forest & nature (2006-2012)



Forest and nature land development

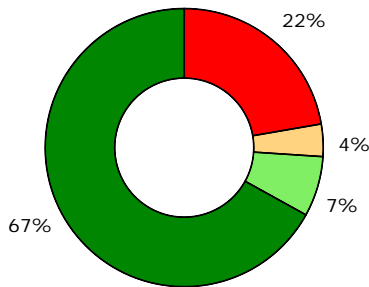
Despite its significantly lower intensity, the internal conversions of forested land remain the most extensive land cover flow in Slovenia, with prevailing recent felling and transition. However, the consumption of forested land by land take by economic sites and infrastructures, mainly by construction sites, had already almost comparable intensity as forest internal conversions in the period 2006-2012. The main reason was a rapid slowdown of recent felling, which is visible already when comparing the two previous periods – 1990-2000 and 2000-2006. Despite this slowdown, transitional woodland still shows a positive balance of net change, with prevailing formation of land.



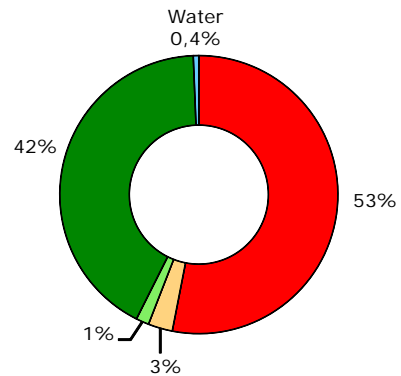
Annex: Land cover flows and trends

Land cover flows 2006-2012

6.18. Consumption of land cover 2006-2012 [% of total change area]

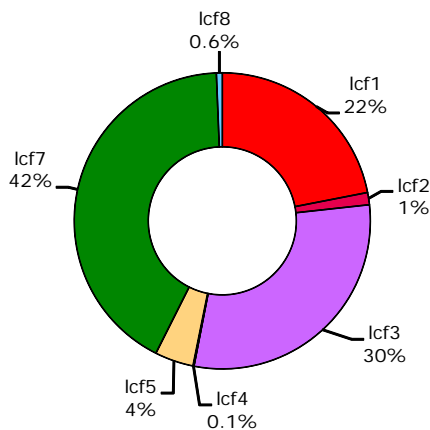


6.19. Formation of land cover 2006-2012 [% of total change area]



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

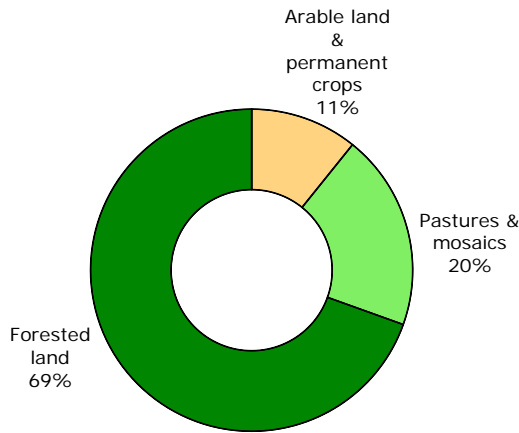
6.20. Drivers of change (LC FLOWS) 2006-2012 [% of total change area]



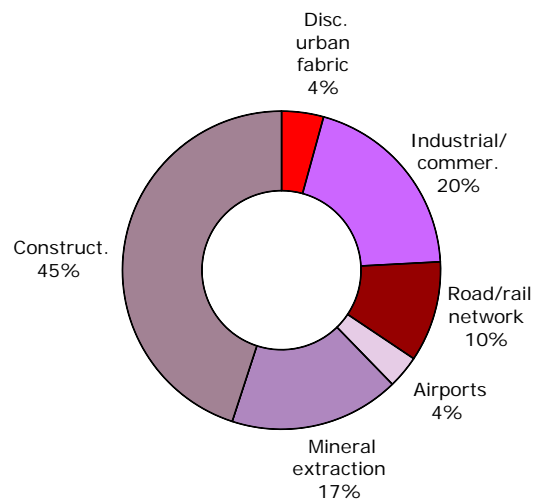
- Icf1 Urban land management
- Icf2 Urban residential sprawl
- Icf3 Sprawl of economic sites and infrastructures
- Icf4 Agriculture internal conversions
- Icf5 Conversion from forested & natural land to agriculture
- Icf6 Withdrawal of farming
- Icf7 Forests creation and management
- Icf8 Water bodies creation and management
- Icf9 Changes due to natural and multiple causes

Artificial areas

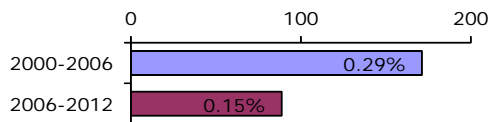
7.21. Consumption by artificial land take 2006-2012 [% of total]



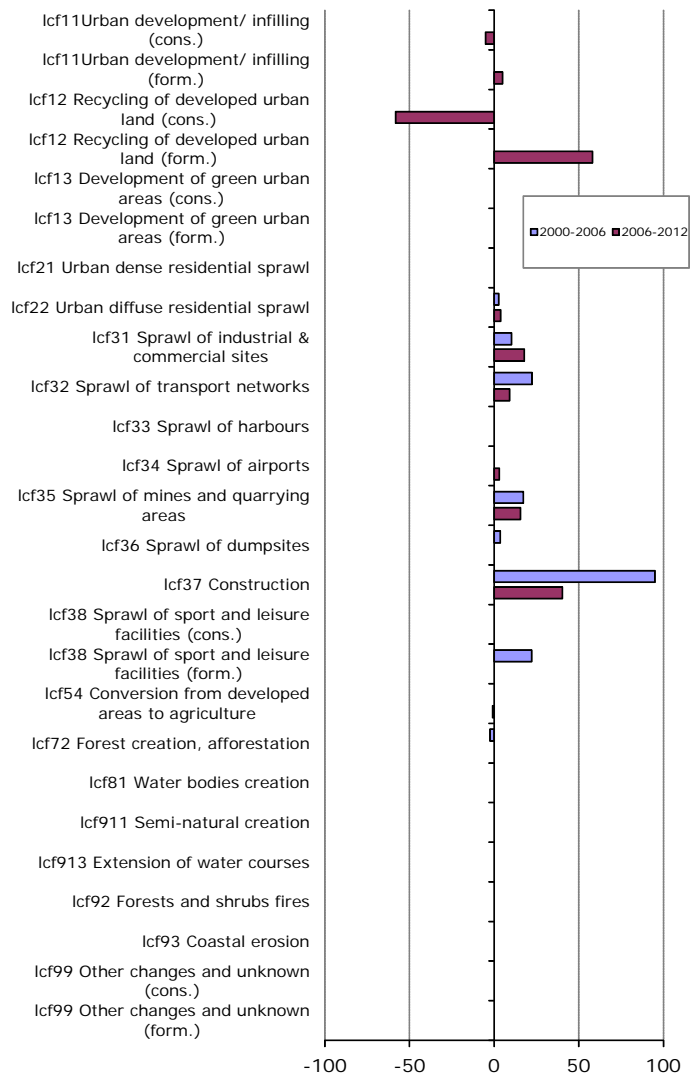
7.22. Formation by artificial land take 2006-2012 [% of total]



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

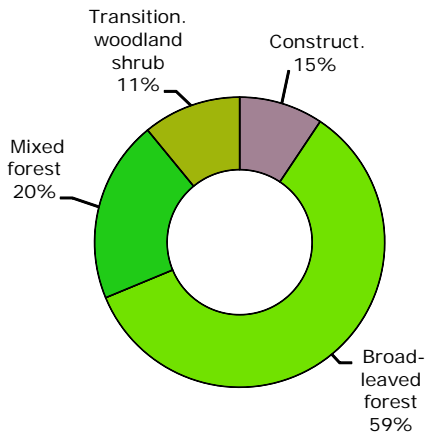


7.24. Artificial development by change drivers (LC FLOWS) [ha/year]

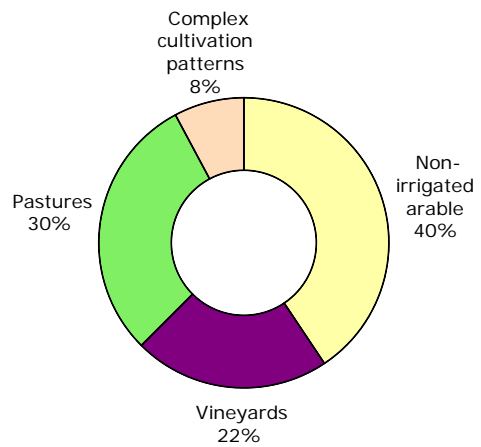


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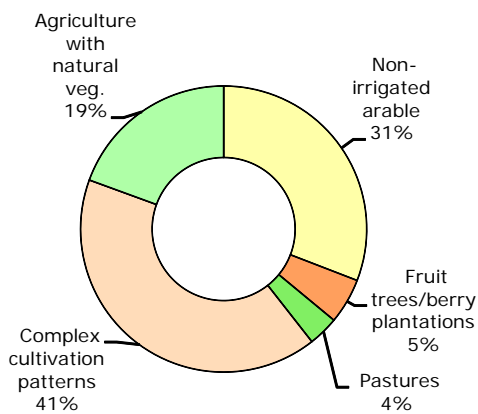
8.25. LC consumed by agriculture 2006-2012 [% of total]



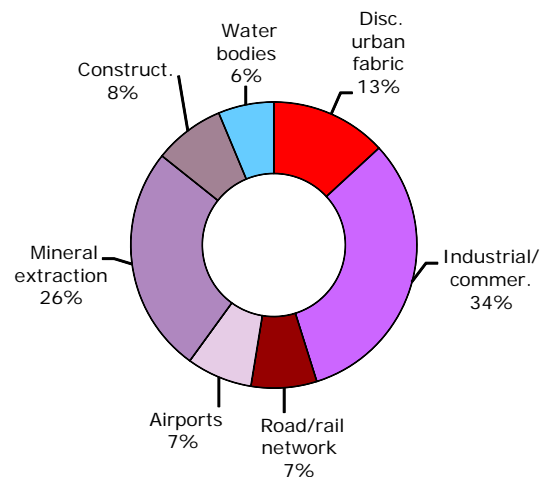
8.26. Formation of agricultural land from non-agriculture 2006-2012 [% of total]



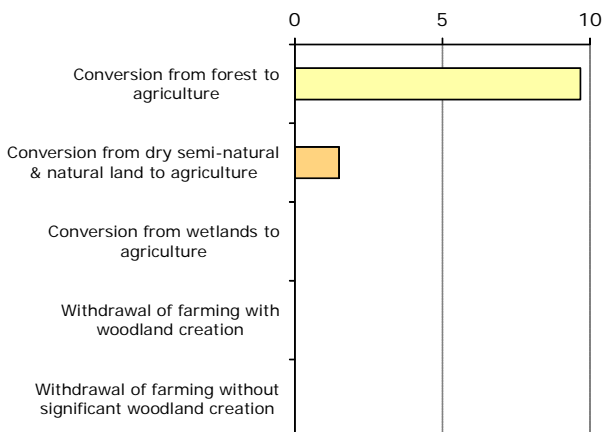
8.27. Consumption of agricultural land by non-agriculture 2006-2012 [% of total]



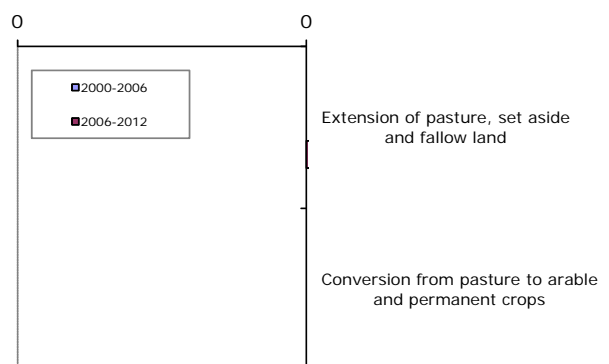
8.28. Formation of non-agricultural land from agriculture 2006-2012 [% of total]



8.29. Main annual conversions between agriculture and forests & semi-natural land 2006-2012 [ha/year]

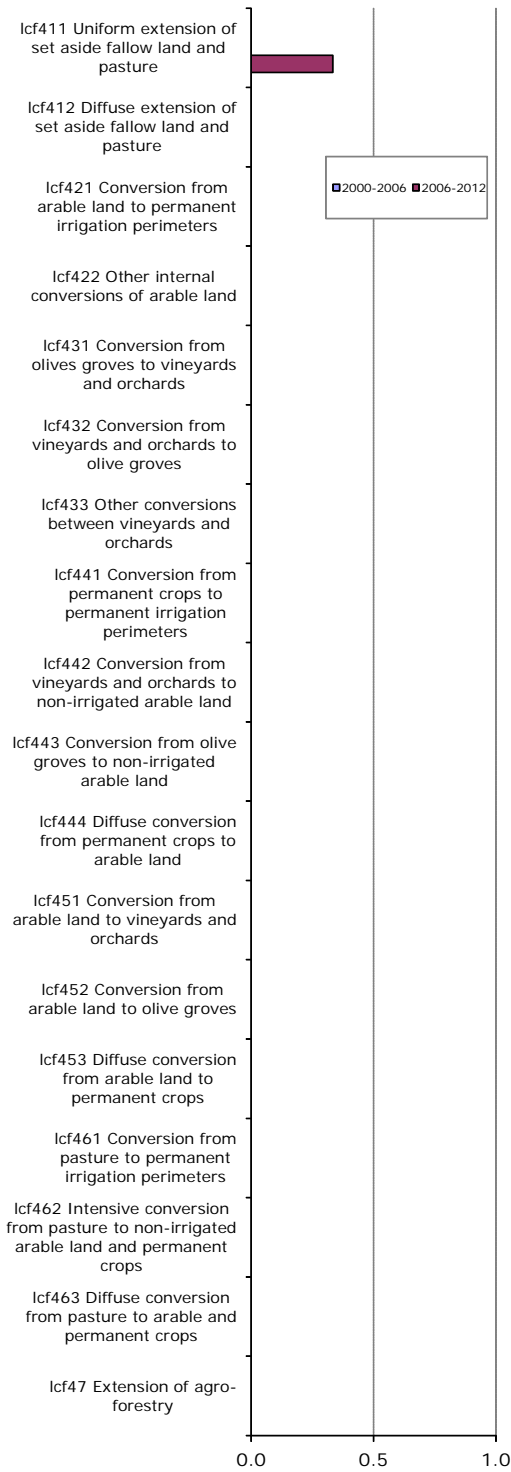


8.30. Mean annual conversion between arable land and pasture [ha/year]

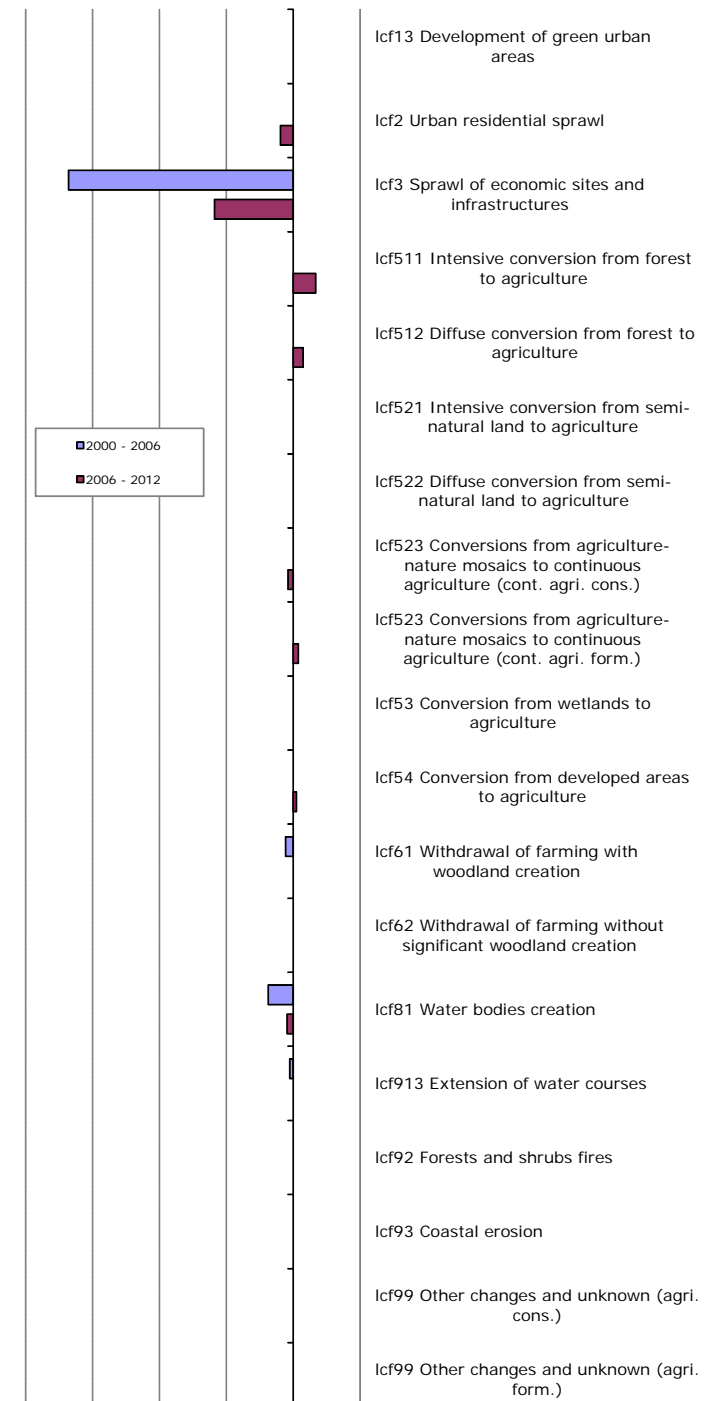


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9.31. Mean annual agriculture internal conversions [ha/year]

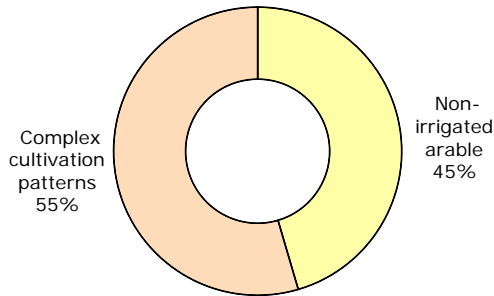


9.32. Mean annual conversions between agriculture and other LC types [ha/year]

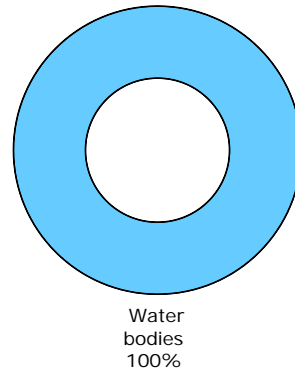


Forest & nature

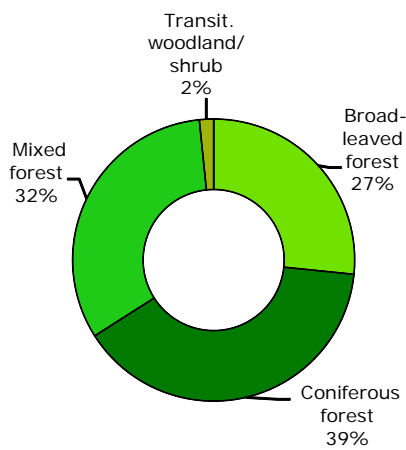
10.33. LC consumed by forest & nature 2006-2012 [% of total]



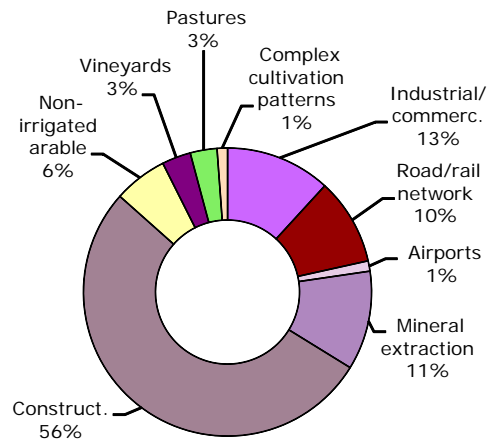
10.34. Formation of forest & nature land from non-forest /nature 2006-2012 [% of total]



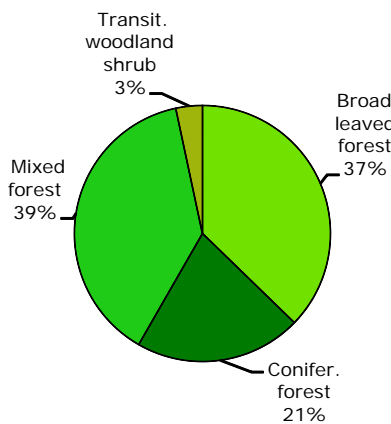
10.35. Consumption of forest & nature land by non-forest/nature 2006-2012 [% of total]



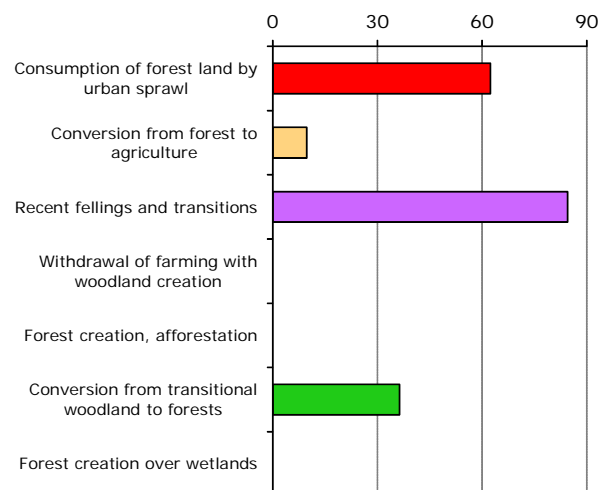
10.36. Formation of non-forest/nature land from forest & nature 2006-2012 [% of total]



10.37. Forested land 2012 [% of total area]

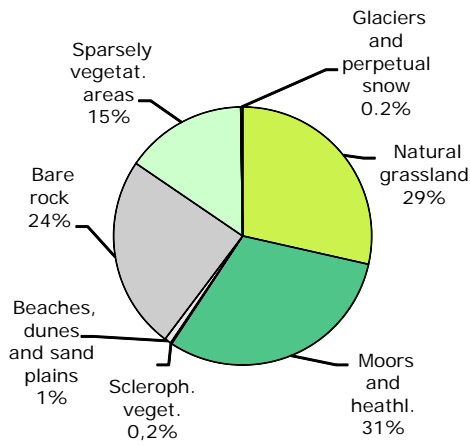


10.38. Main trends in woodland & forests consumption/formation 2006-2012 [ha/year]

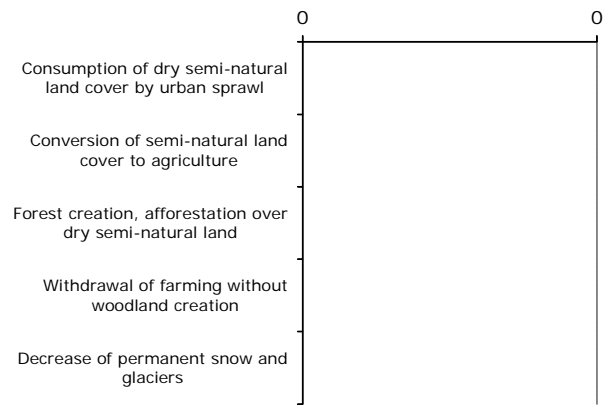


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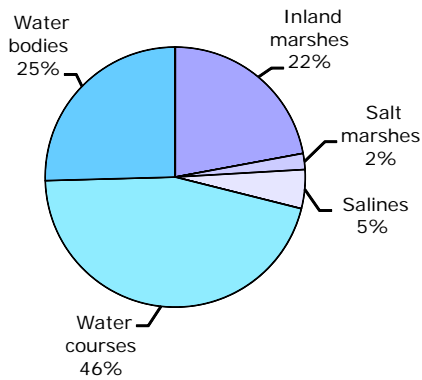
11.39. Dry semi-natural areas 2012
[% of total area]



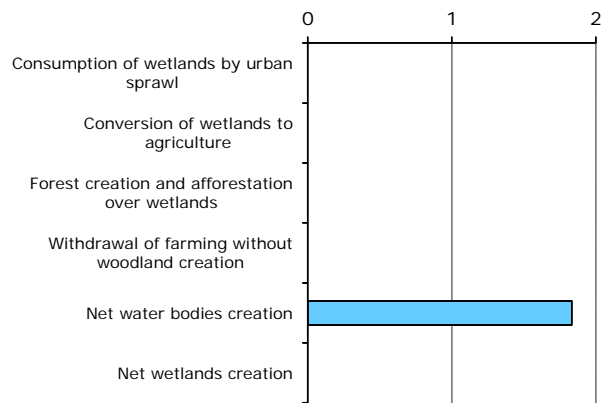
11.40. Main trends in dry semi-natural land consumption/formation 2006-2012
[ha/year]



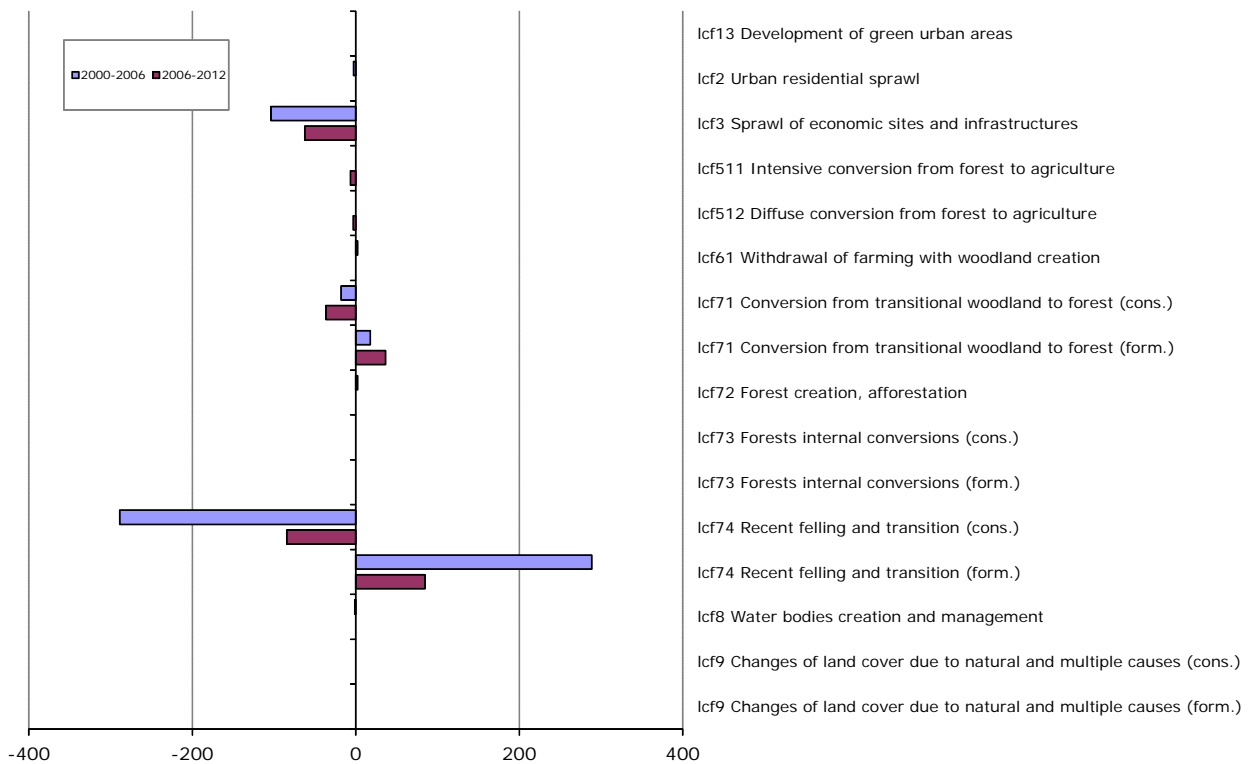
11.41. Wetlands & water 2012
[% of total area]



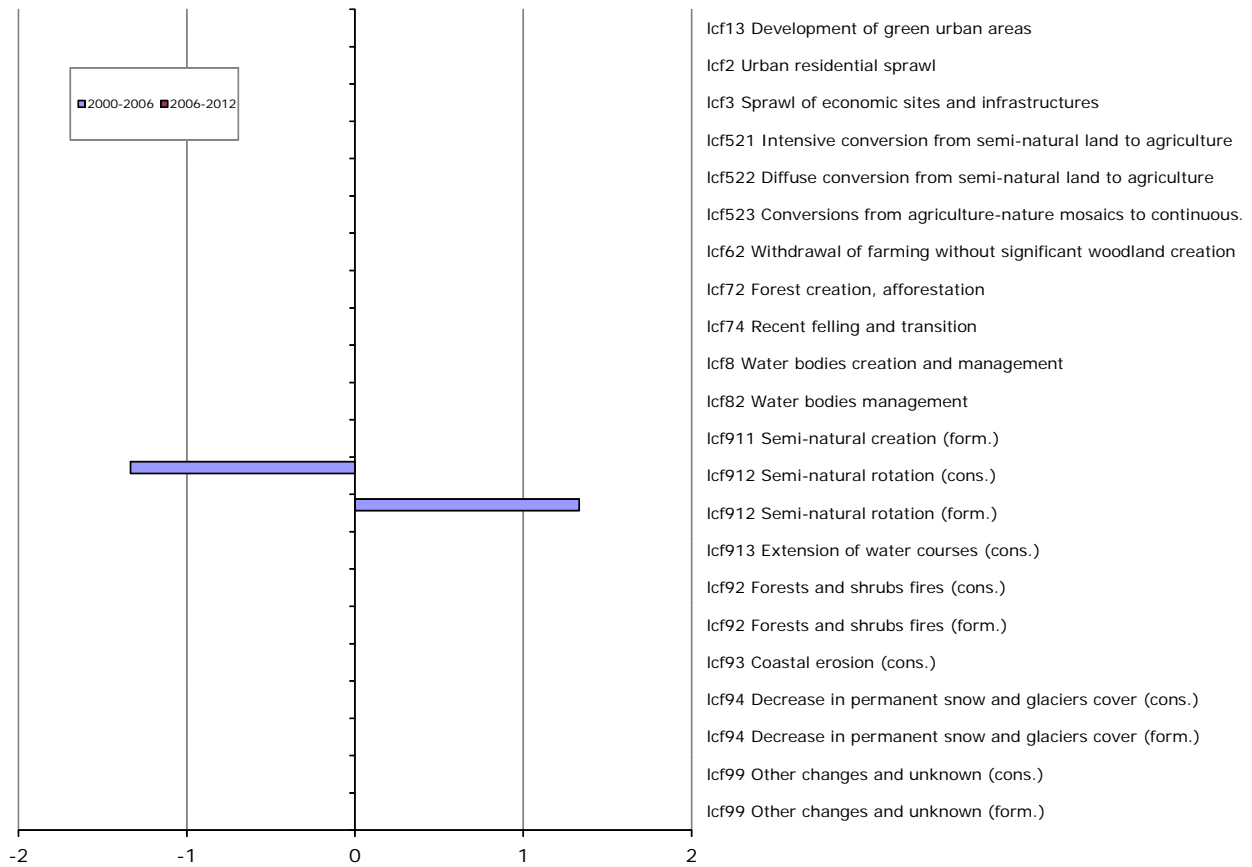
11.42. Main trends in wetlands & water consumption/formation 2006-2012
[ha/year]



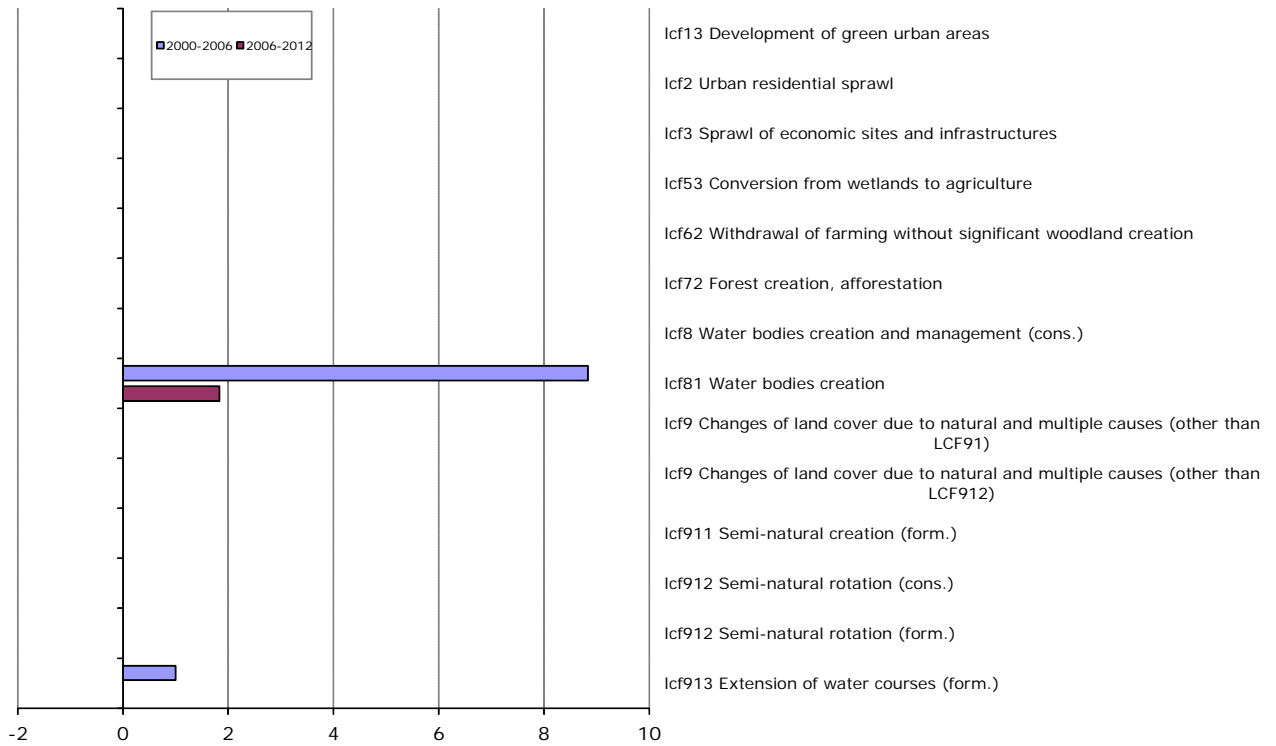
11.43. Mean annual conversions of forest & other woodland
[ha/year]



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

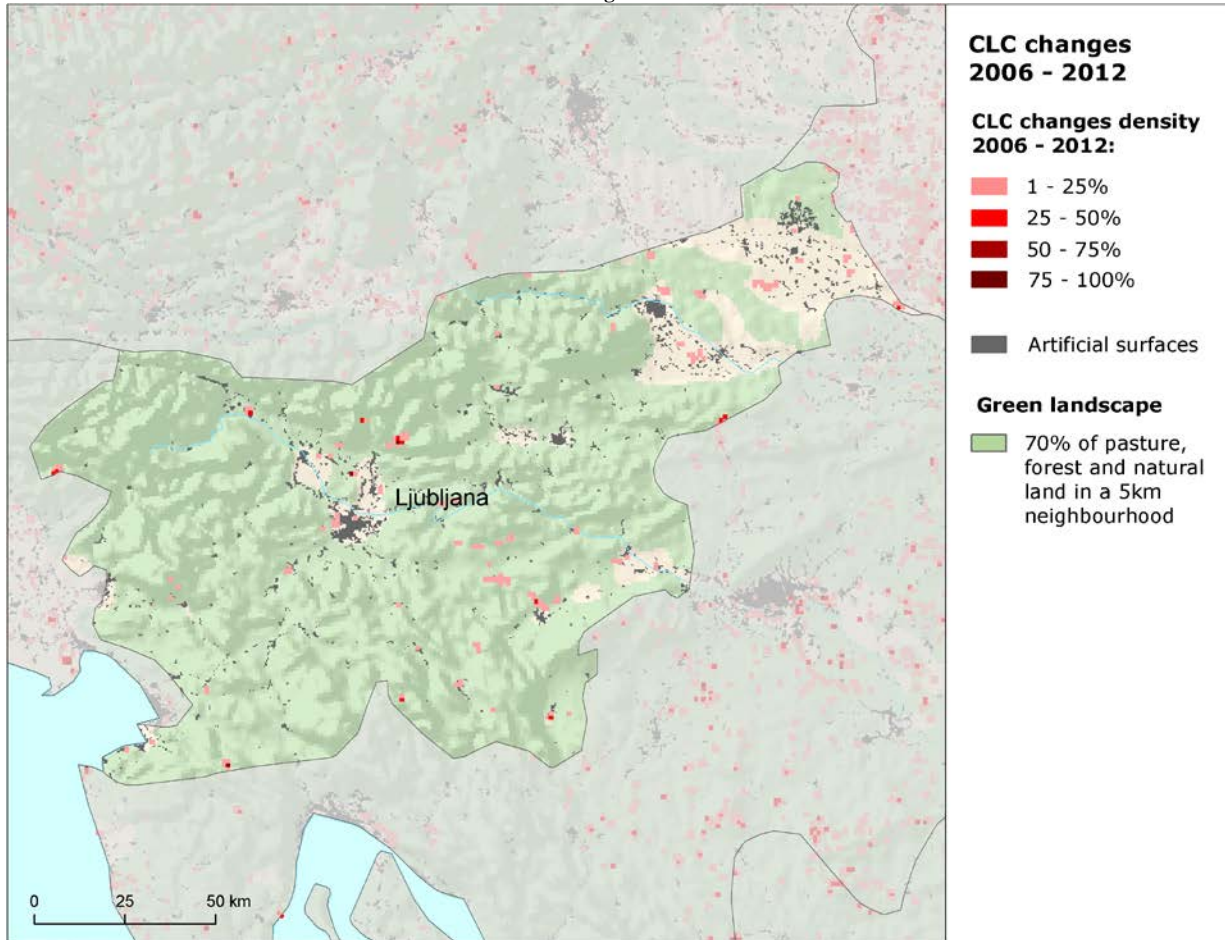


12.45. Mean annual conversions of wetlands and water LC [ha/year]

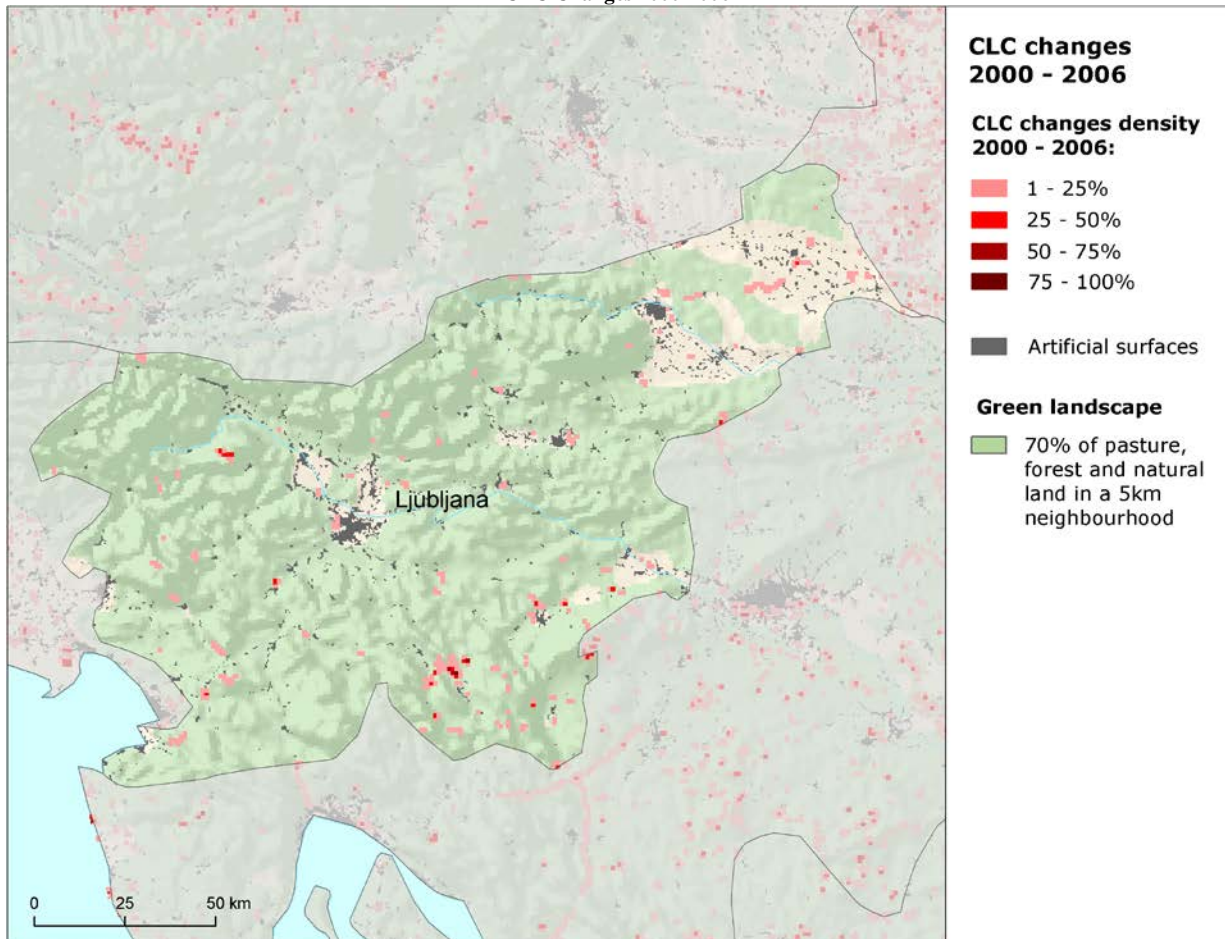


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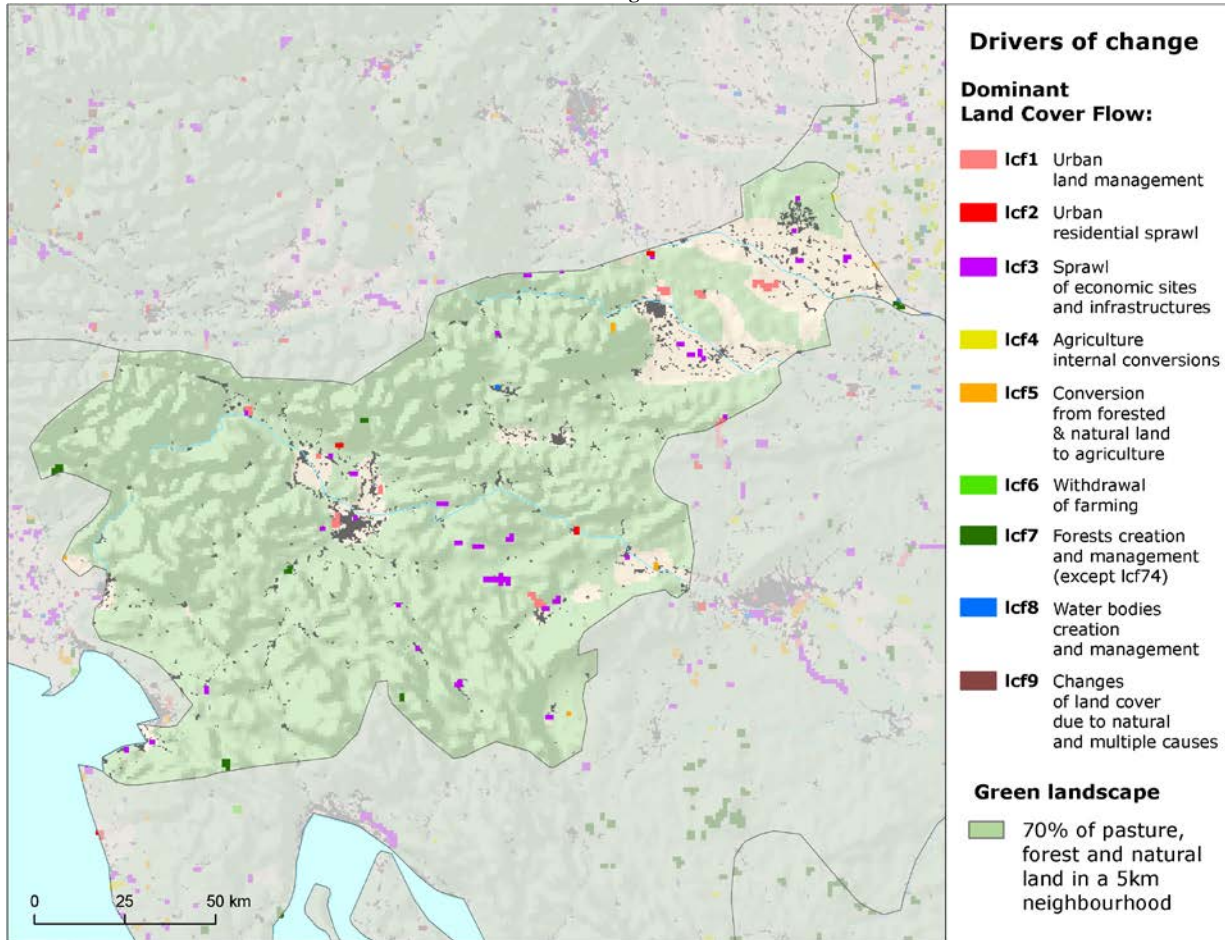
CLC Changes 2006-2012



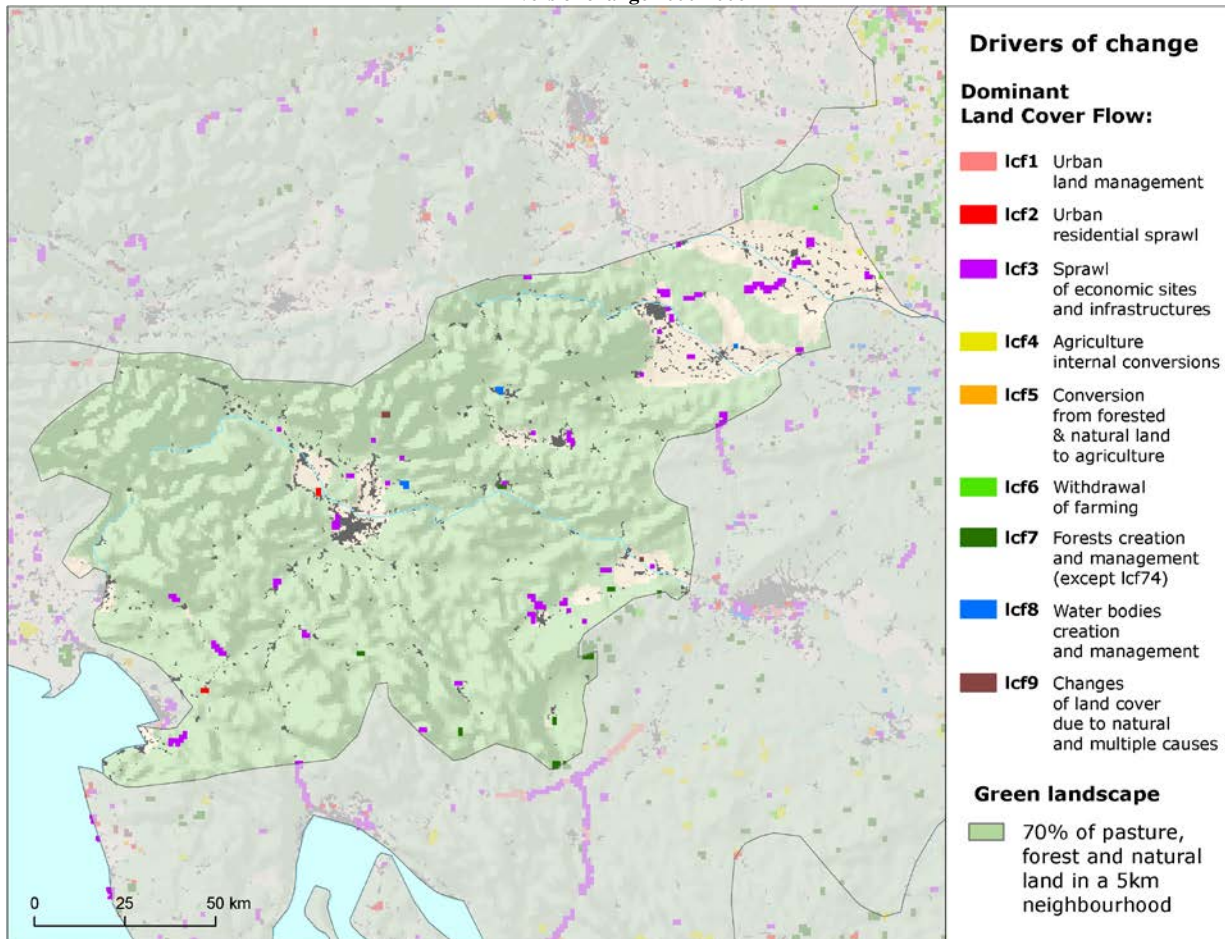
CLC Changes 2000-2006



Drivers of change 2006-2012

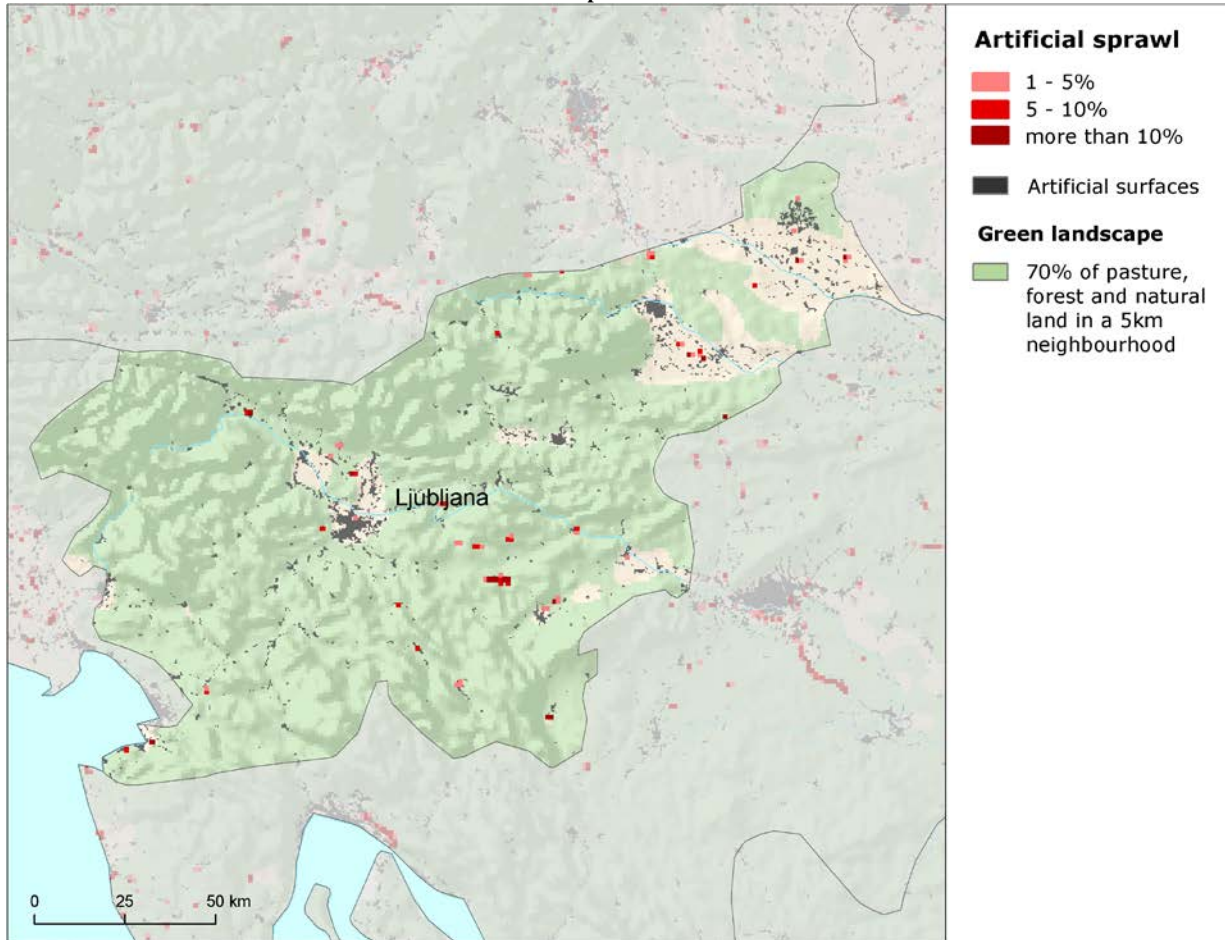


Drivers of change 2000-2006

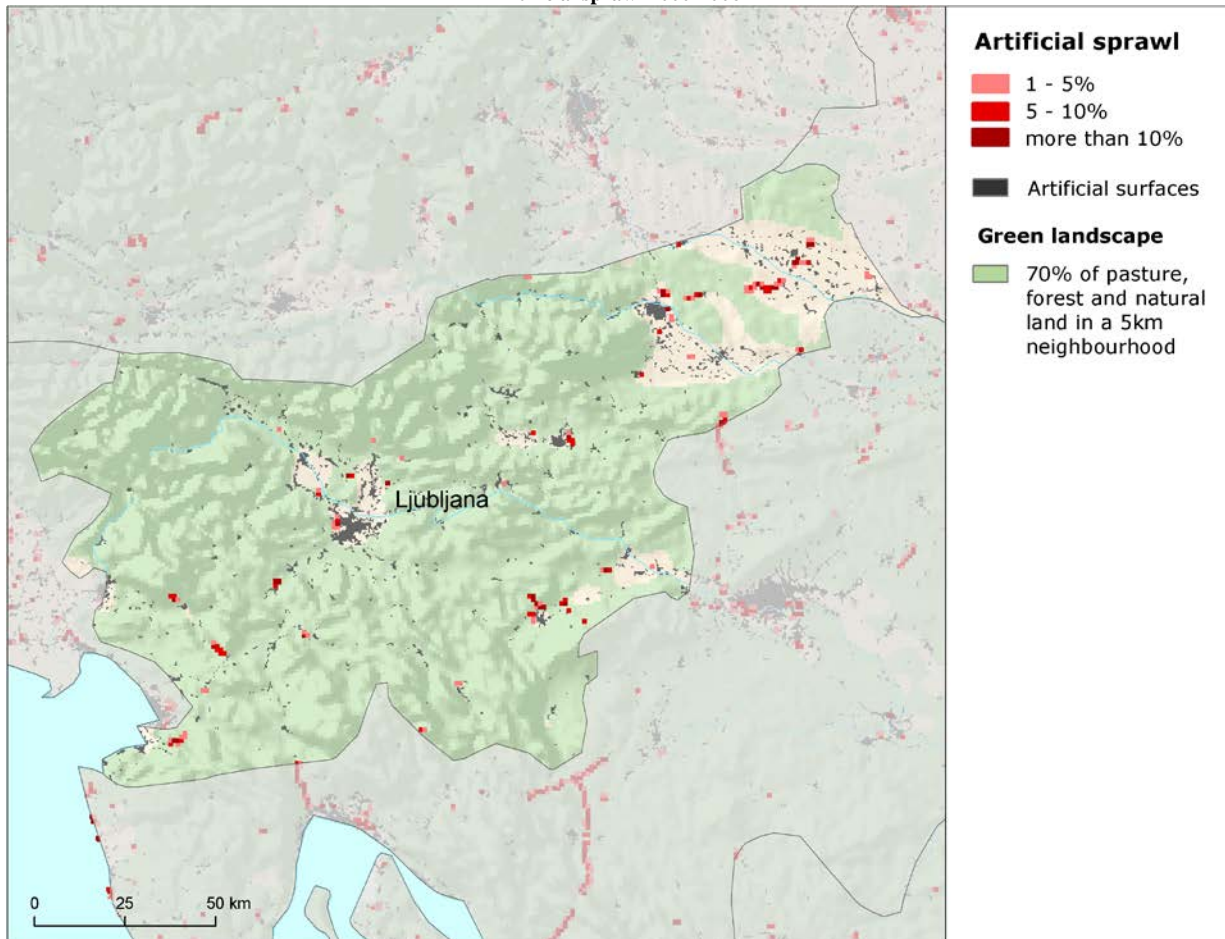


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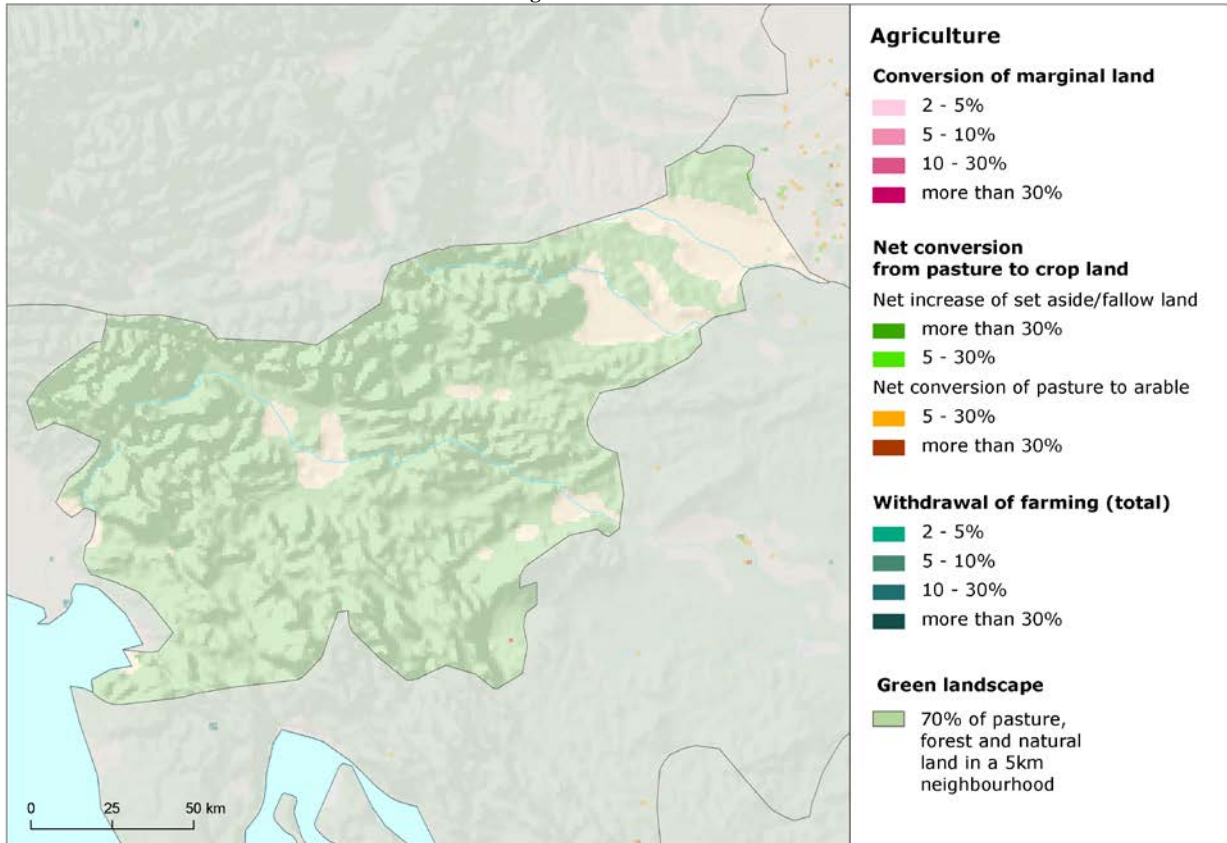
Artificial sprawl 2006-2012



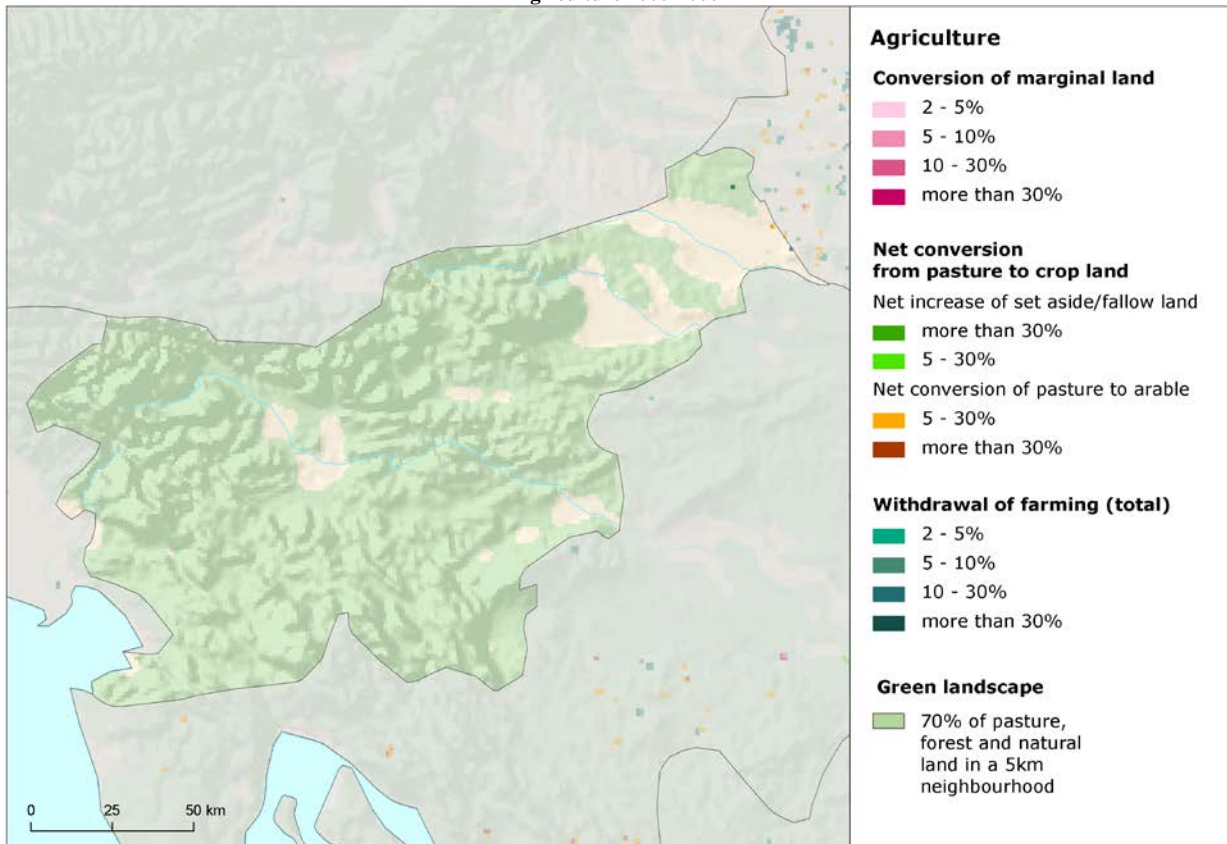
Artificial sprawl 2000-2006



Agriculture 2006-2012

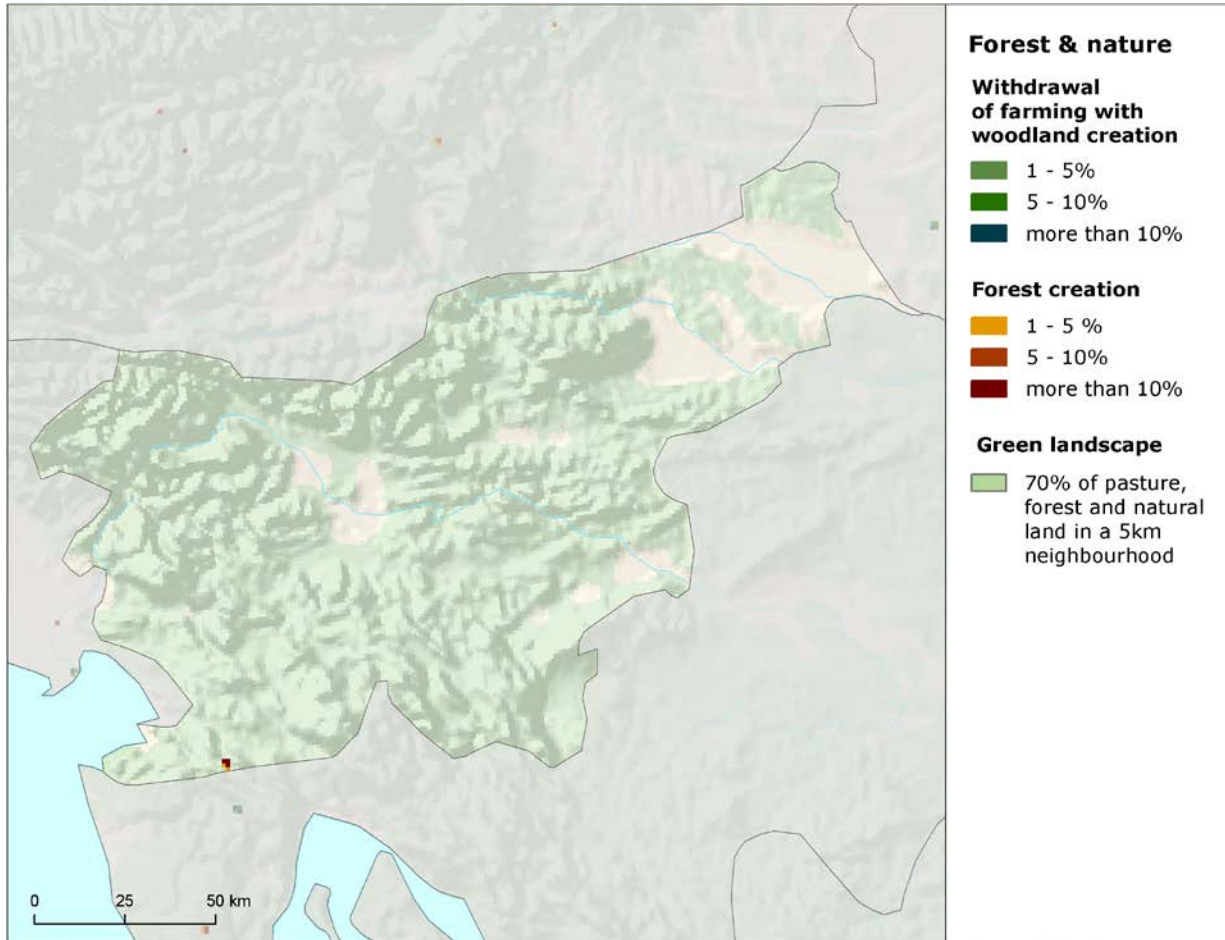


Agriculture 2000-2006



Slovenia

Forest and nature 2006-2012



Forest and nature 2000-2006

