Country fact sheet

Land cover 2012

Switzerland

September 2017

Photo: © Toni García, My City/EEA

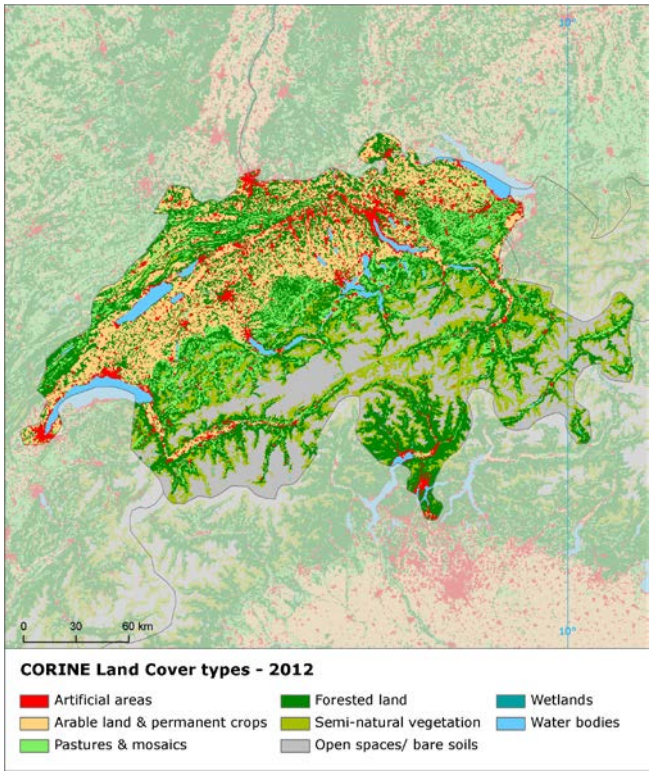
European Environment Agency

Switzerland

Land cover 2012

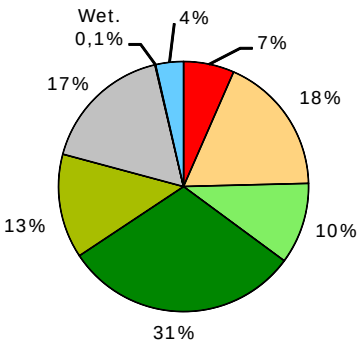
Overview of land cover & change 2006-2012

In the long term, the Swiss landscape shows very low intensity of land cover development. The annual land cover change rate in the period 2006-2012 (0.02% of total area) is one of the lowest among European countries.
Changes due to natural and multiple causes are the major drivers of landscape development in Switzerland, represented almost exclusively by decrease of glaciers cover. The intensity of this flow is significantly higher, compared to the previous period 2000-2006, which shows opposite trend than in neighbouring Austria, where this process slowed down in the latest period. As a result of melting, total glaciers area in Switzerland decreased by 2.4% between 2006 and 2012.
The conversion from transitional woodland to forest, which was rather insignificant during the previous period, became the second most extensive driver of land cover development in the country in recent years.
Artificial development is the third most significant driver of change in Switzerland, with the highest share of sprawl of economic sites and infrastructures, mainly industrial or commercial areas and mine and quarrying sites. However, the intensity of land take in the country (described by the annual artificial land take rate of 0.04%) is extremely low, compared to the European average. This situation was similar in the previous period.

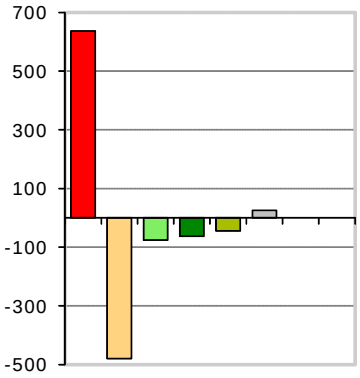


Note: The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over more than decade between 2000-2006-2012 - see Corine land cover (CLC) programme for details.
Number of years between CLC2006-CLC2012 data for Switzerland: 6

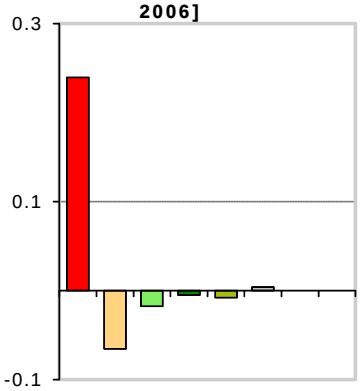
1.1. Land cover 2012 [% of total]

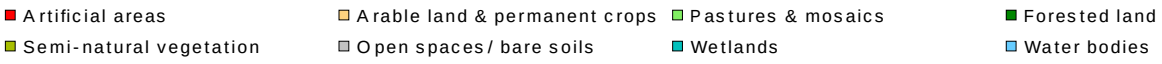


1.2. Net change in land cover 2006-2012 [ha]



1.3. Net change in land cover [% of initial year 2006]





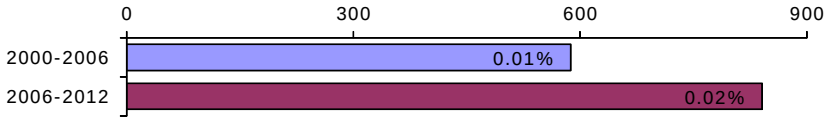
Summary balance table 2006-2012

	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	**2658**	**7328**	**4268**	**12405**	**5483**	**6960**	**35**	**1456**	**40594**
Consumption of initial LC	2.8	5.1	1.0	13.3	0.6	27.7	0.0	0.0	50
Formation of new LC	9.2	0.3	0.3	12.6	0.2	28.0	0.0	0.0	50
Net Formation of LC	**6.4**	**-4.8**	**-0.8**	**-0.6**	**-0.4**	**0.3**	**0.0**	**0.0**	**0**
Net formation as % of initial year	*0.2*	*-0.1*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Total turnover of LC	**11.9**	**5.3**	**1.3**	**25.9**	**0.8**	**55.7**	**0.0**	**0.0**	**101**
Total turnover as % of initial year	*0.4*	*0.1*	*0.0*	*0.2*	*0.0*	*0.8*	*0.0*	*0.0*	*0.2*
Land cover 2012	**2665**	**7323**	**4267**	**12404**	**5483**	**6961**	**35**	**1456**	**40594**

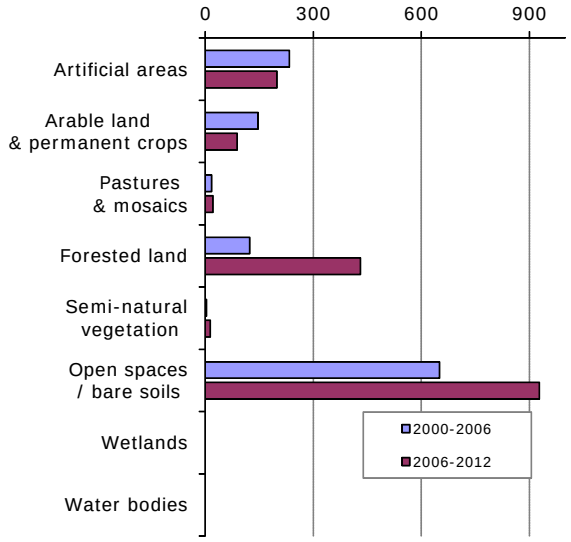
Switzerland

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

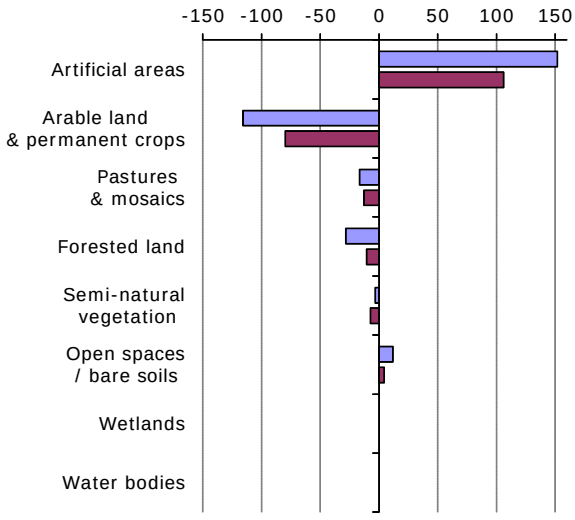
2.4. Annual land cover change [ha/year, % of total area]



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

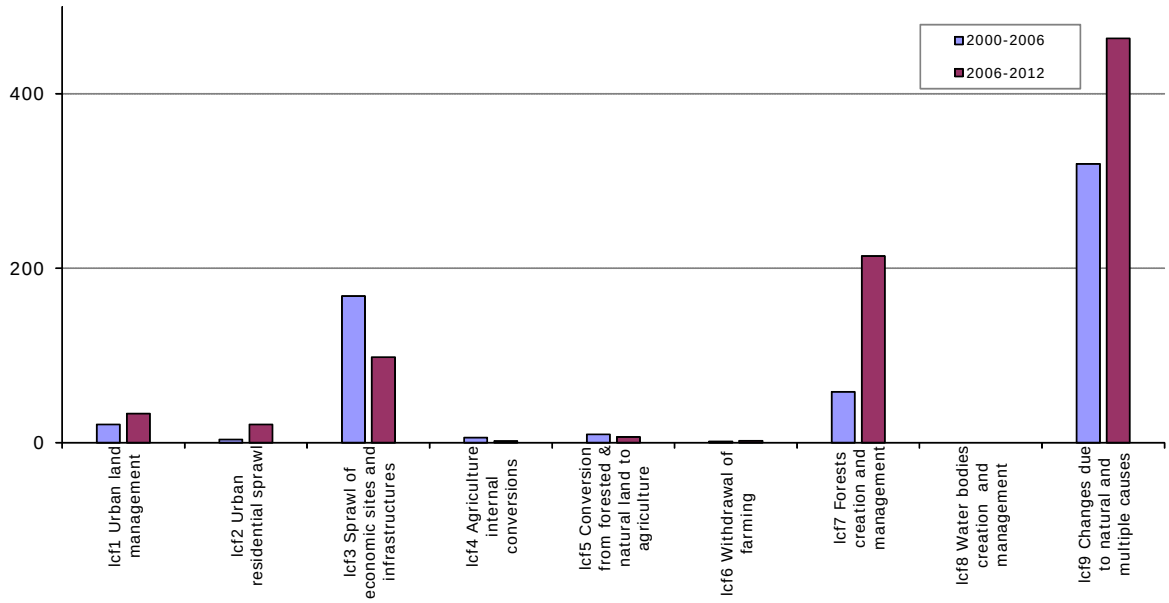


2.6. Net annual change of LC types [ha/year]



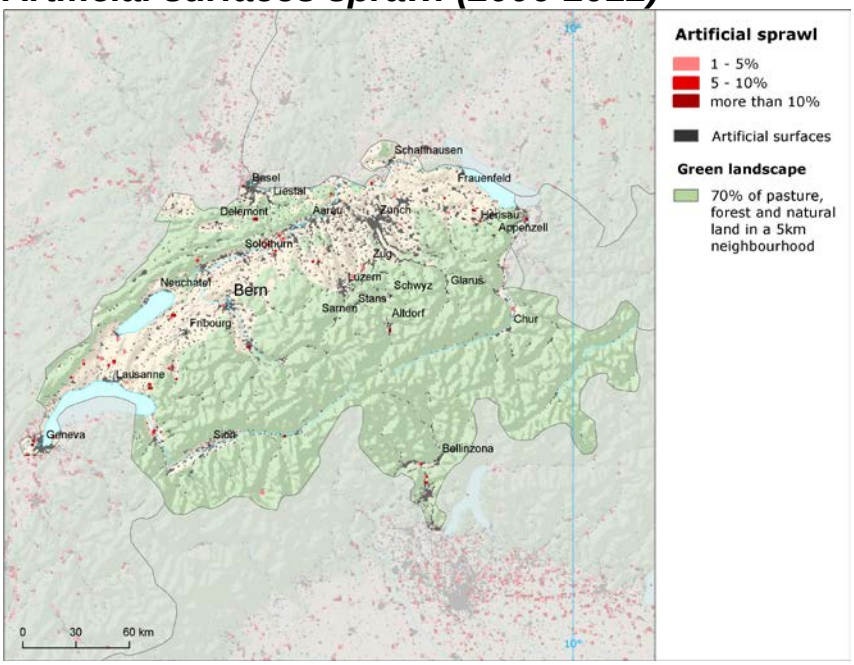
Summary trend figures	2000-2006	2006-2012
Annual land cover change [ha/year]	**588**	**841**
Annual land cover change as % of initial year	**0.01%**	**0.02%**
Land uptake by artificial development as mean annual change [ha/year]	161	118
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]	141	97
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]	0	-2
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]	3	-2
Forest & other woodland net formation as mean annual change [ha/year]	-28	-11
Dry semi-natural land cover net formation as mean annual change [ha/year]	9	-3
Wetlands & water bodies net formation as mean annual change [ha/year]	0	0

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

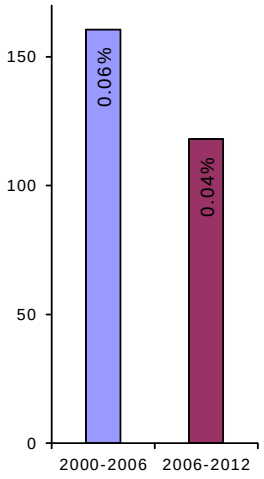


Switzerland

Artificial surfaces sprawl (2006-2012)



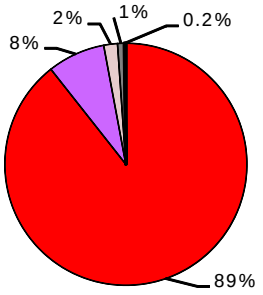
3.8. Artificial land take [ha/year, % of initial year]



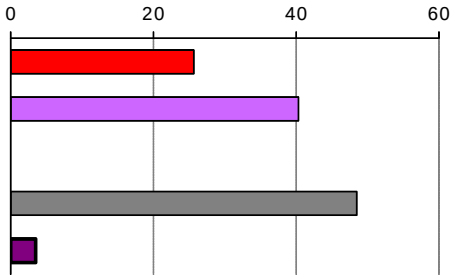
Artificial development still very slow

Artificial development in Switzerland is rather insignificant, when compared to other European countries. This situation was identical already during the previous period 2000-2006. Sprawl is driven by the extension of mines and quarrying areas, industrial and commercial sites and residential areas – all these flows occur with increased intensity, compared to the previous period. On the other hand, sprawl of sport and leisure facilities and also construction, which were major drivers of artificial development in 2000-2006, almost disappeared from the landscape. Agricultural land, with prevailing share of arable (68% of total sprawl area) is the main source for the new artificial development. Besides sprawl, also recycling of developed urban land was observed in Switzerland, represented mostly by the conversion from construction sites into transportation network units.

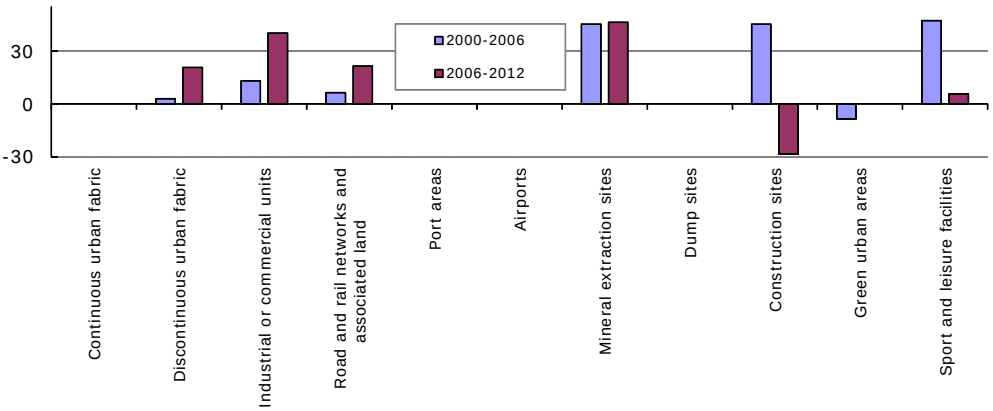
3.9. Artificial surfaces 2012 [% of total area]



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

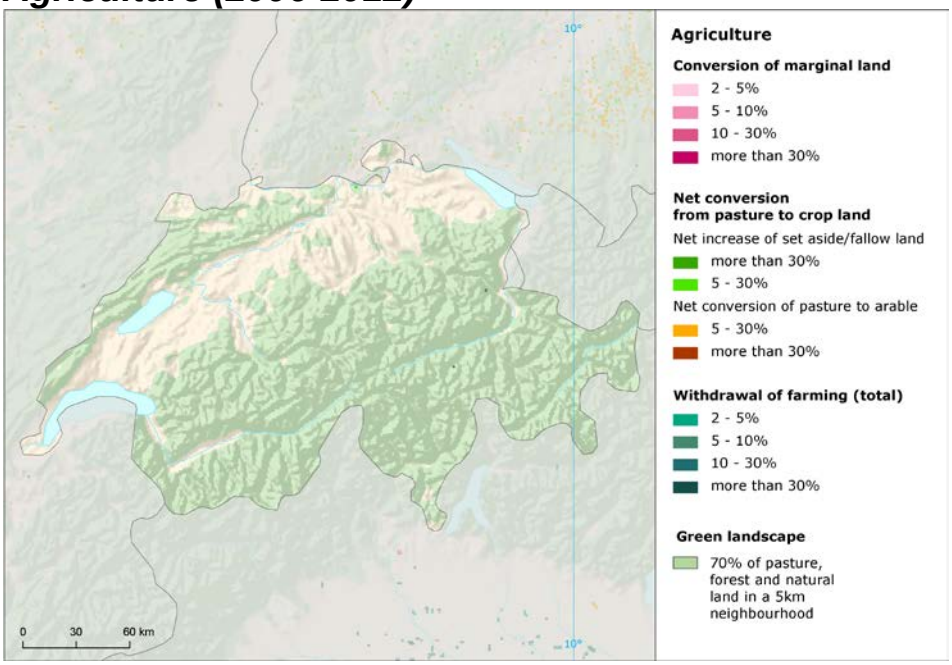


3.11. Mean annual artificial change by class [ha/year]



Switzerland

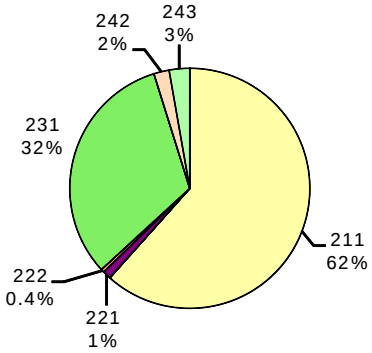
Agriculture (2006-2012)

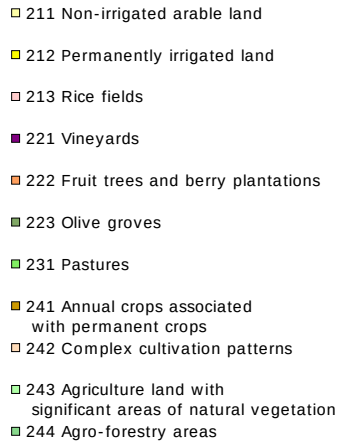


No significant agricultural development

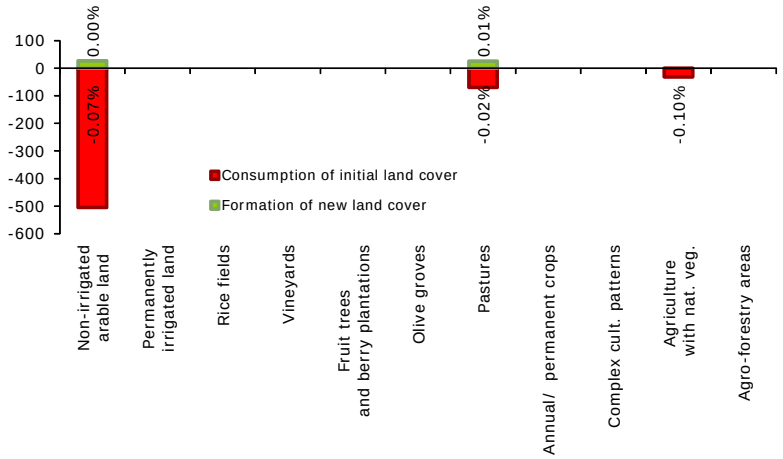
The development of agricultural land in Switzerland is influenced mostly by agricultural land consumption by artificial development. Agricultural land is the main source for urban sprawl in the country, with prevailing share of arable (82% of total agricultural consumption). However, due to the low intensity of artificial land take in Switzerland, a percentage of the agricultural (and also arable) land taken by sprawl is rather insignificant. The intensity of other agricultural changes in the country is almost negligible, there were only observed some cases of conversion of construction or mineral extraction sites to agricultural land.

4.12. Agricultural areas 2012 [% of total area]

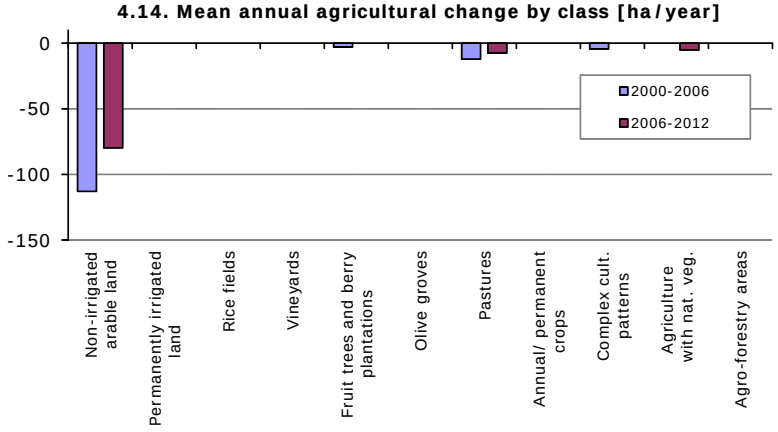




4.13. Development of agricultural areas 2006-2012 – detailed balance [ha]

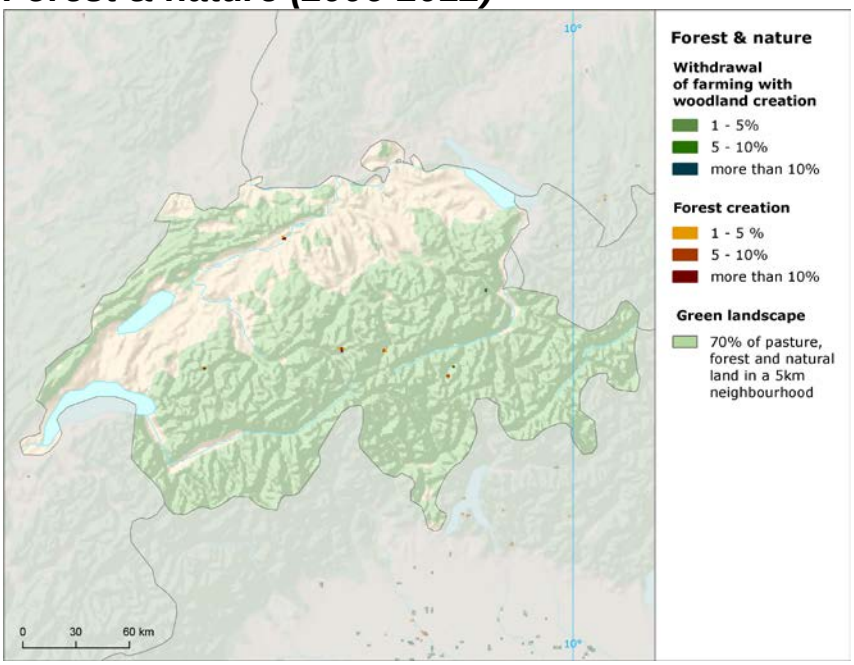


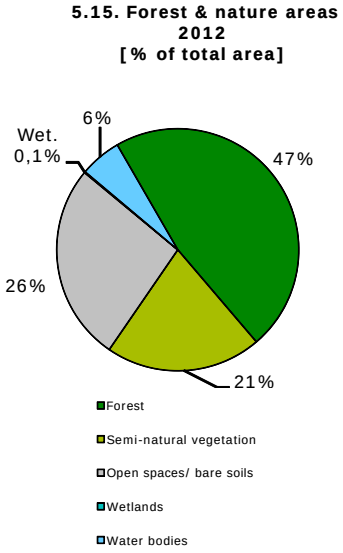
4.14. Mean annual agricultural change by class [ha / year]



Switzerland

Forest & nature (2006-2012)

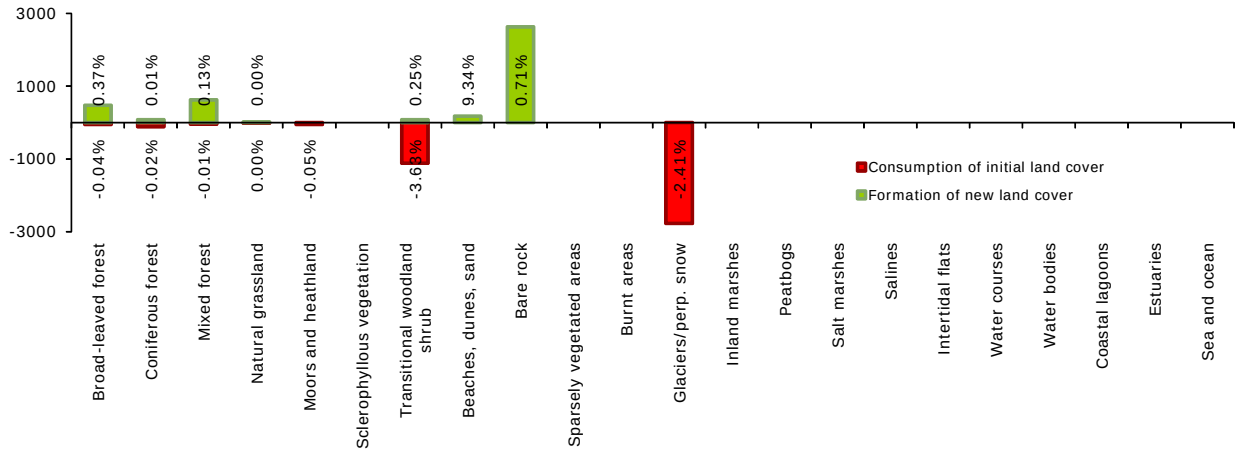




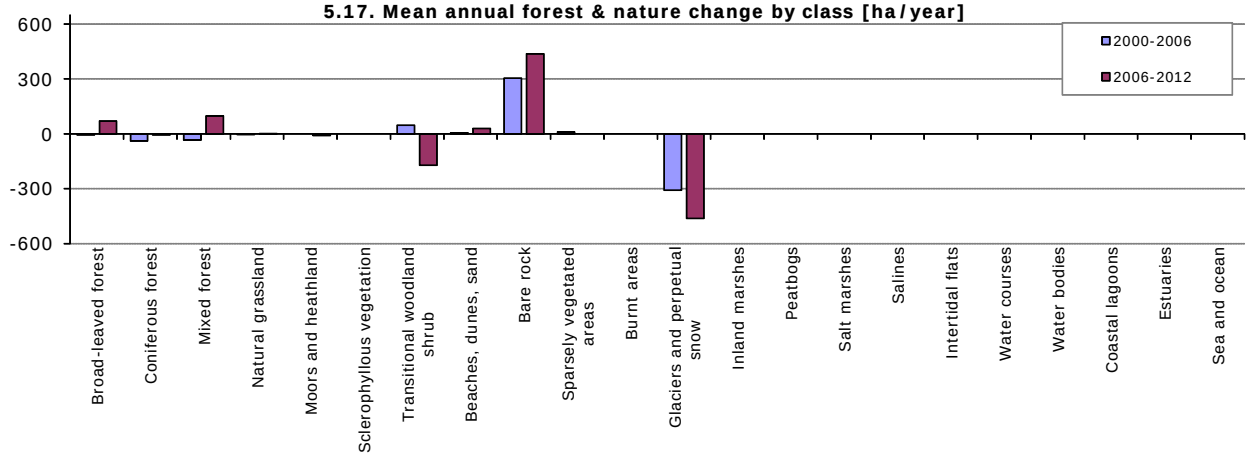
Glaciers-melt accelerates

The most significant process in the Swiss natural land, as well as in the Swiss landscape in general, is a decrease of glaciers cover in the alpine areas. This process continues with even increased intensity, compared to the previous period, which shows opposite trend in comparison with neighbouring Austria, where the glaciers-melt seems to have slowed down in the latest period. As a result, the total area of glaciers in Switzerland decreased by 2.4% between 2006 and 2012. Another significant change in the country, with rapidly increased intensity compared to the previous period, is the internal forest conversion. This flow is represented mostly by the conversion from transitional woodland to forest, which was not observed during the previous period.

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



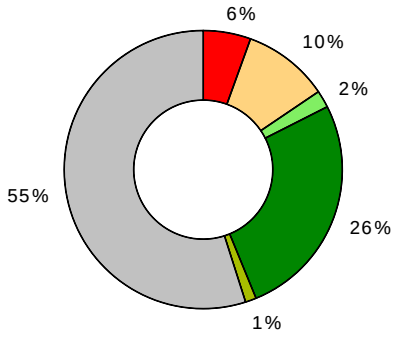
5.17. Mean annual forest & nature change by class [ha/year]



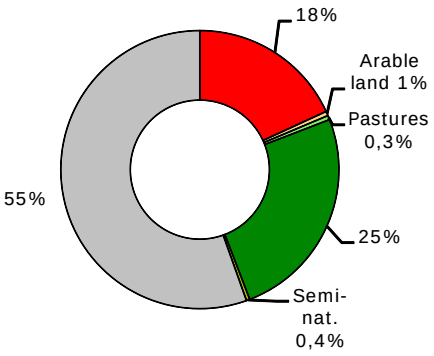
Annex: Land cover flows and trends

Land cover flows 2006-2012

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

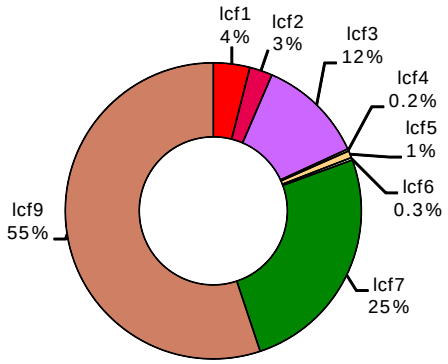


6.19. Formation of land cover 2006-2012 [% of total change area]



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]

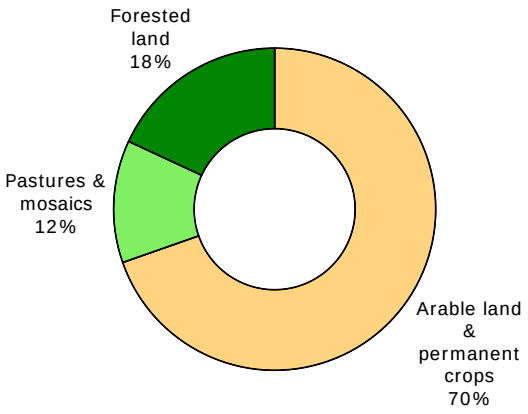


lcf1 Urban land management
lcf2 Urban residential sprawl
lcf3 Sprawl of economic sites and infrastructures
lcf4 Agriculture internal conversions
lcf5 Conversion from forested & natural land to agriculture
lcf6 Withdrawal of farming
lcf7 Forests creation and management
lcf8 Water bodies creation and management
lcf9 Changes due to natural and multiple causes

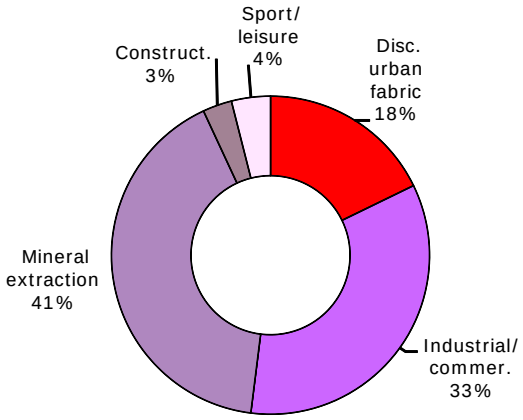
Switzerland

Artificial areas

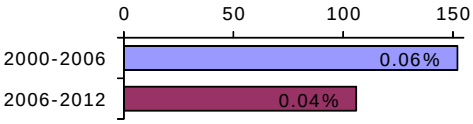
7.21. Consumption by artificial land take 2006-2012 [% of total]



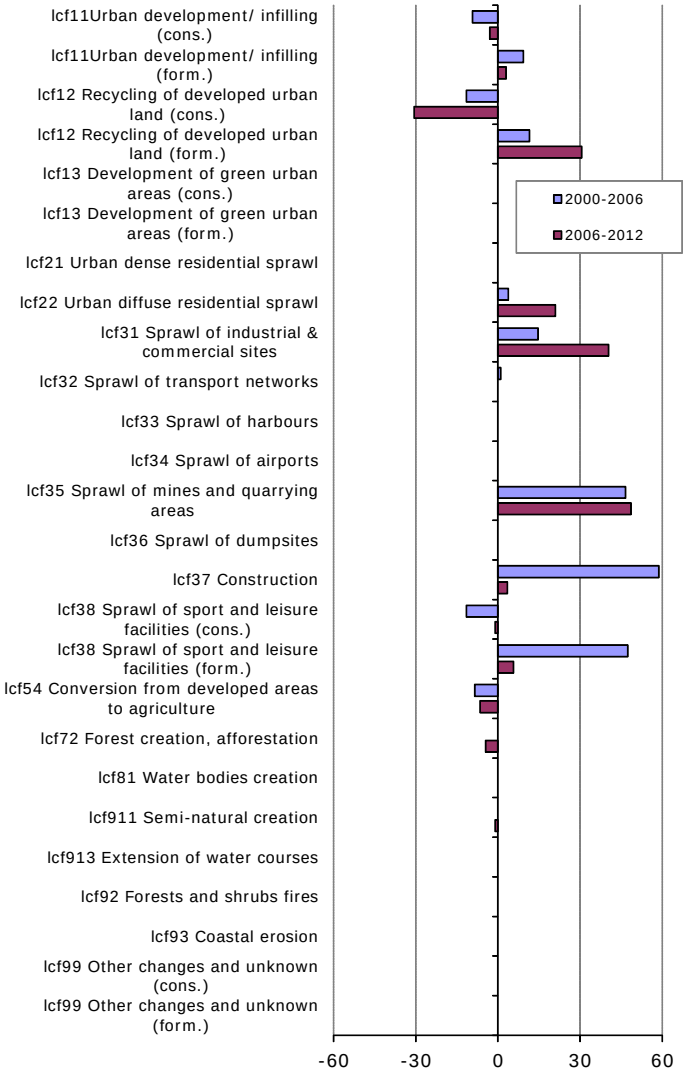
7.22. Formation by artificial land take 2006-2012 [% of total]



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



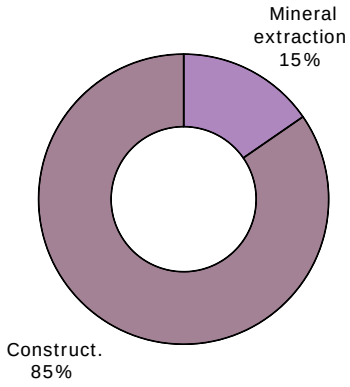
7.24. Artificial development by change drivers (LC FLOWS) [ha/year]



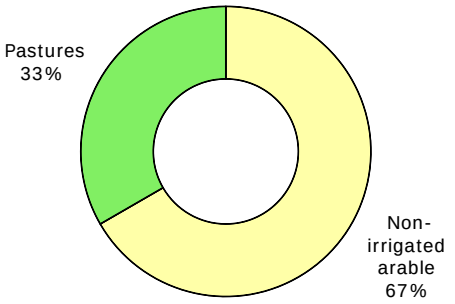
Switzerland

Agriculture

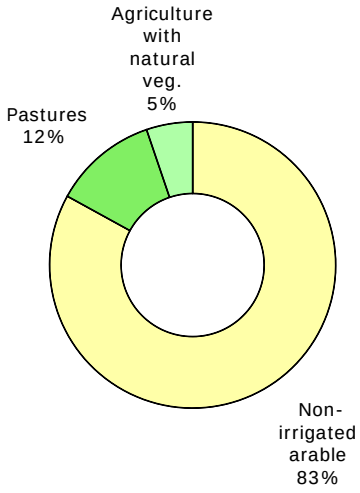
8.25. LC consumed by agriculture 2006-2012 [% of total]



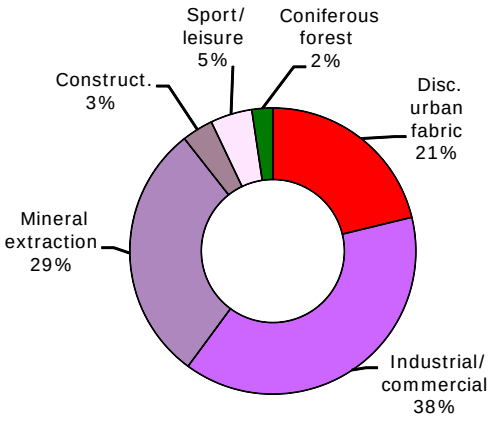
8.26. Formation of agricultural land from non-agriculture 2006-2012 [% of total]



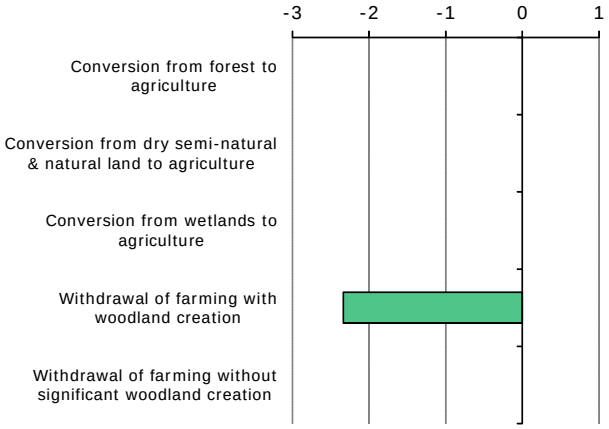
8.27. Consumption of agricultural land by non-agriculture 2006-2012 [% of total]



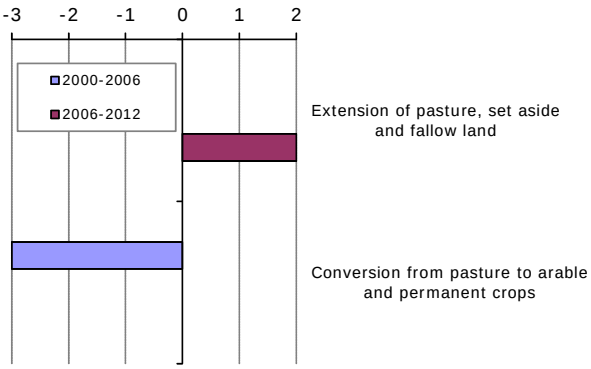
8.28. Formation of non-agricultural land from agriculture 2006-2012 [% of total]



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

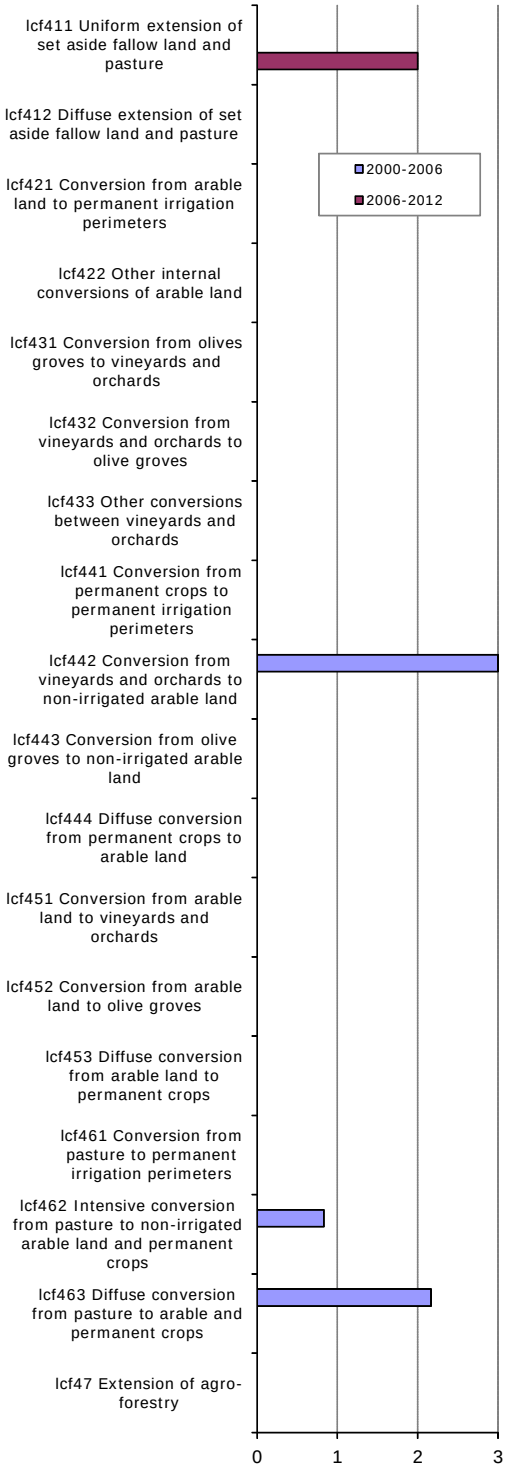


8.30. Mean annual conversion between arable land and pasture [ha/year]

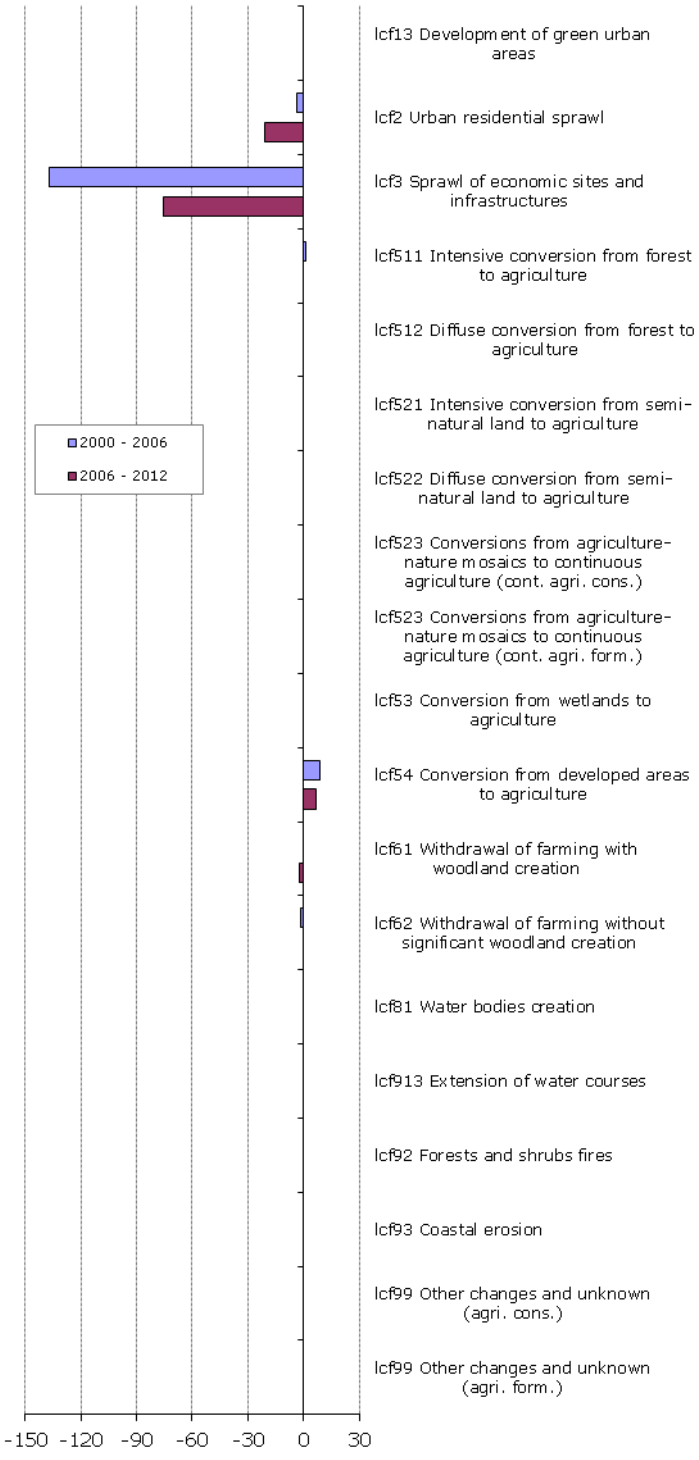


Switzerland

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



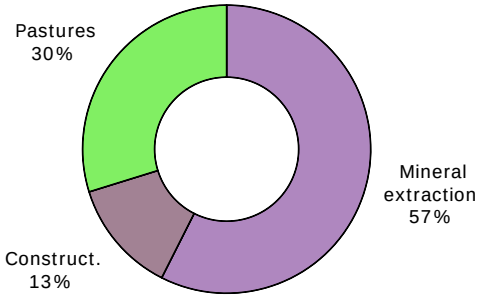
9.32. Mean annual conversions between agriculture and other LC types [ha/year]



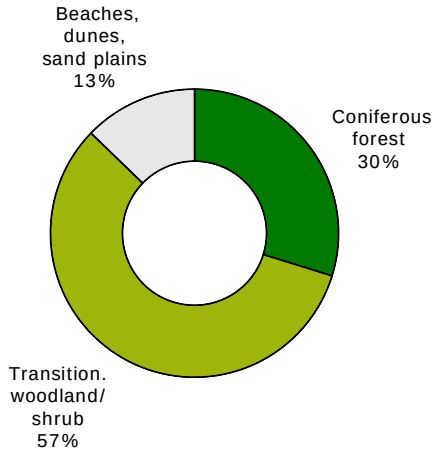
Switzerland

Forest & nature

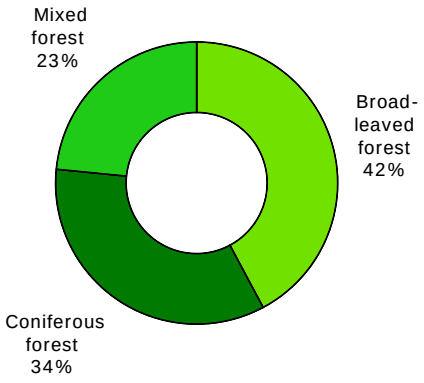
10.33. LC consumed by forest & nature 2006-2012 [% of total]



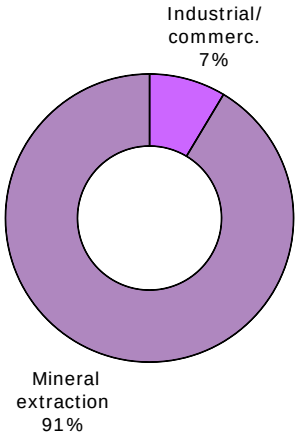
10.34. Formation of forest & nature land from non-forest /nature 2006-2012 [% of total]



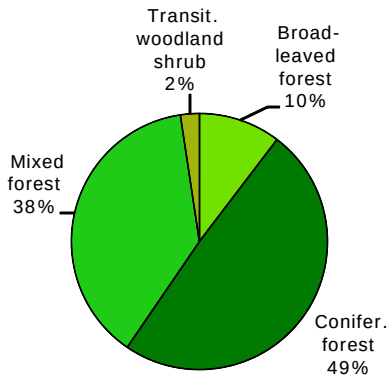
10.35. Consumption of forest & nature land by non-forest/nature 2006-2012 [% of total]



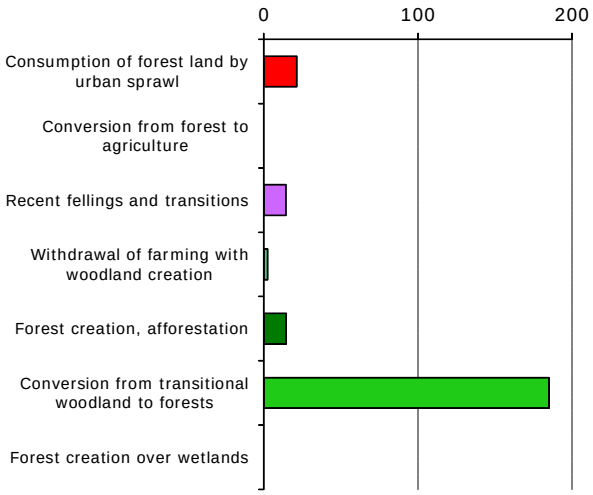
10.36. Formation of non-forest/nature land from forest & nature 2006-2012 [% of total]



10.37. Forested land 2012 [% of total area]

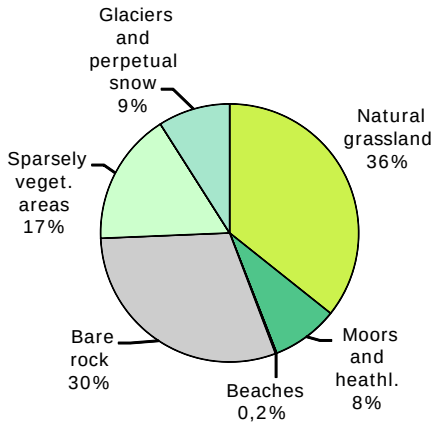


10.38. Main trends in woodland & forests consumption/formation 2006-2012 [ha/year]

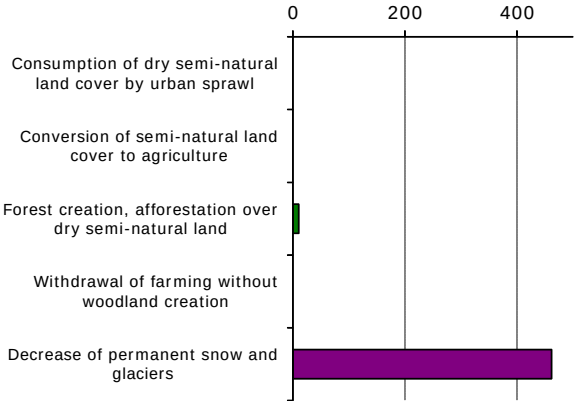


Switzerland

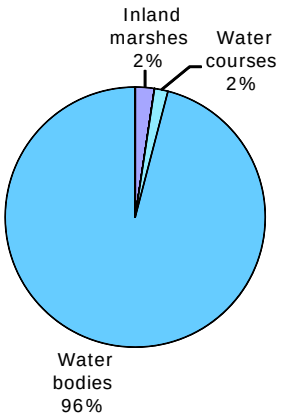
11.39. Dry semi-natural areas 2012 [% of total area]



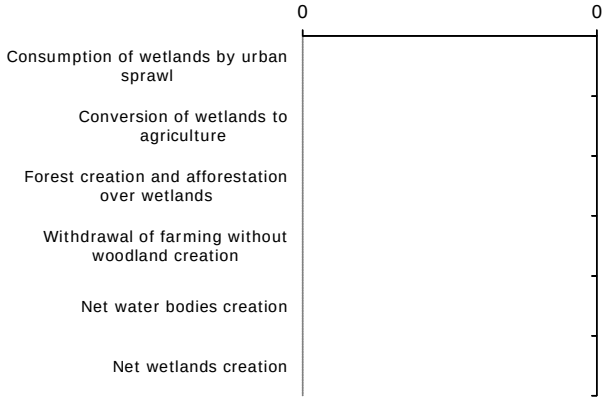
11.40. Main trends in dry semi-natural land consumption/formation 2006-2012 [ha/year]



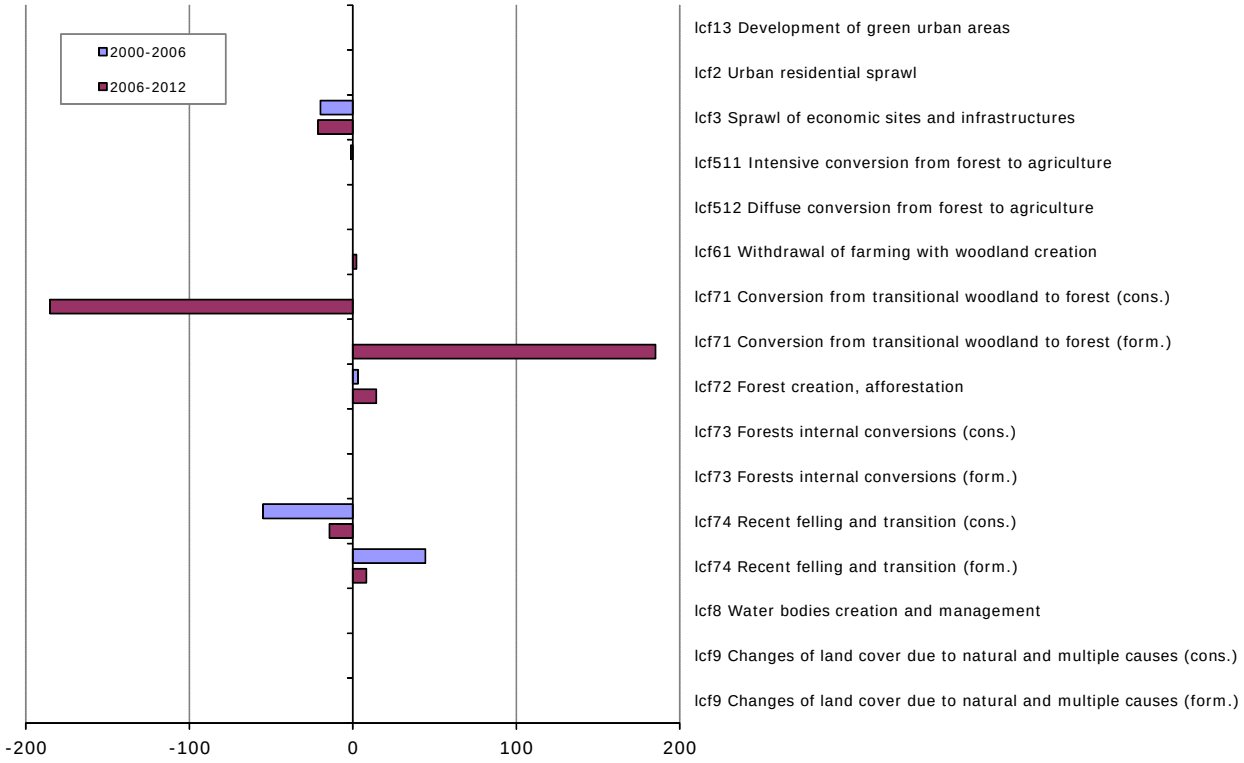
11.41. Wetlands & water 2012 [% of total area]



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

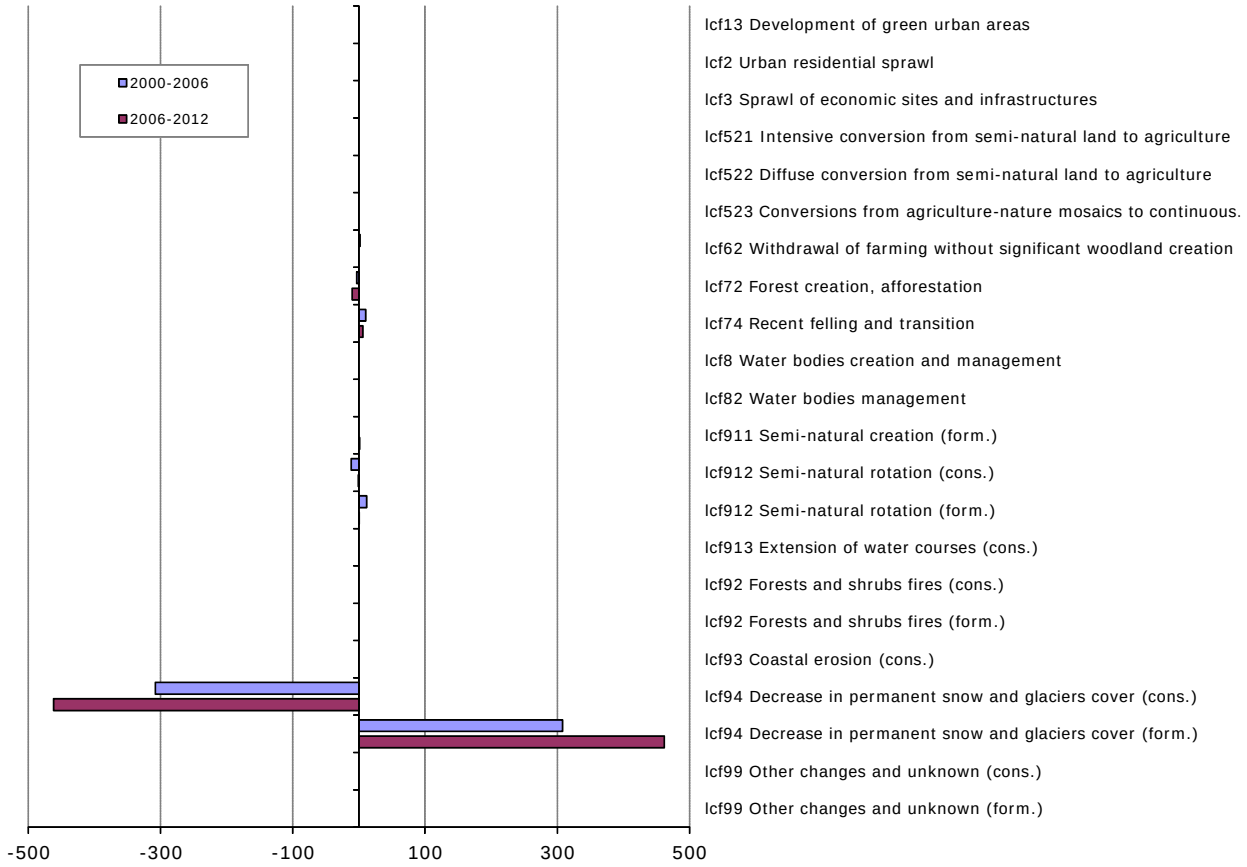


11.43. Mean annual conversions of forest & other woodland [ha/year]

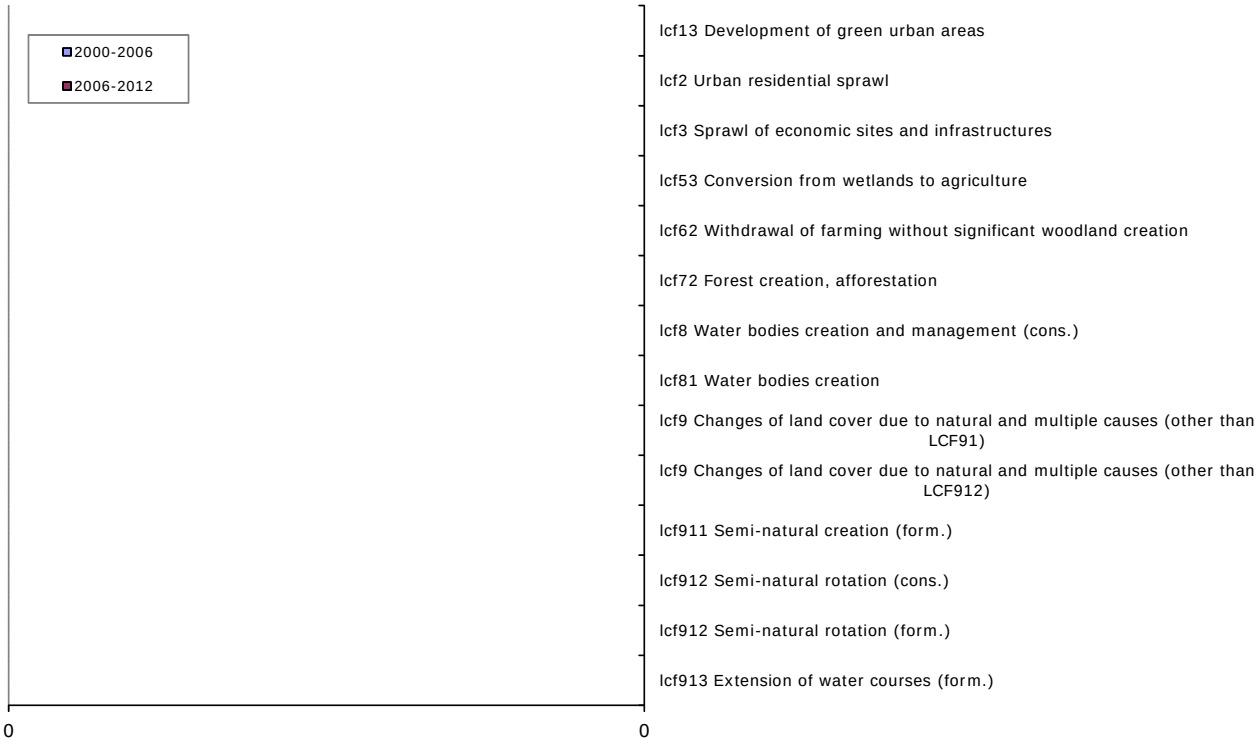


Switzerland

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

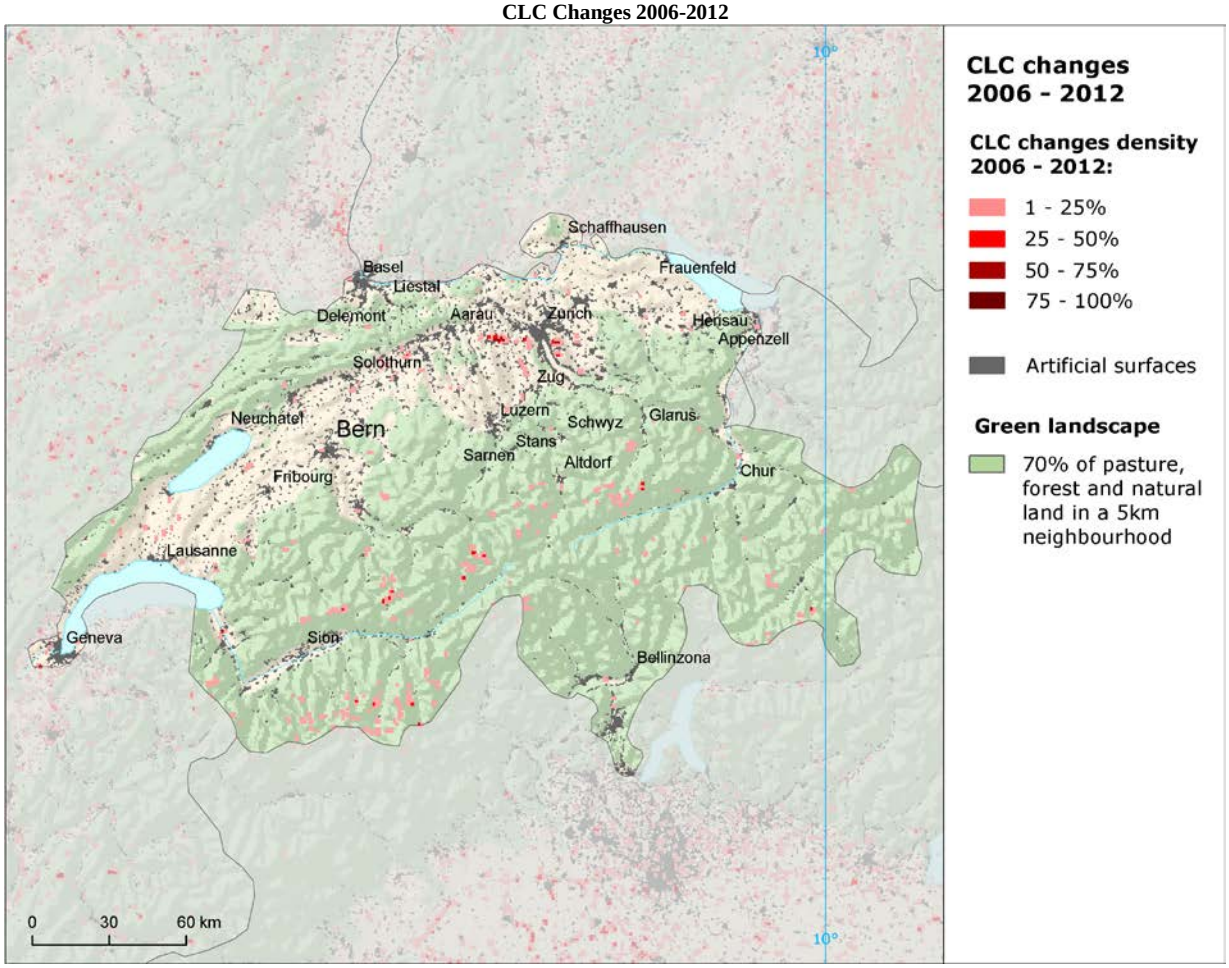


12.45. Mean annual conversions of wetlands and water LC [ha/year]

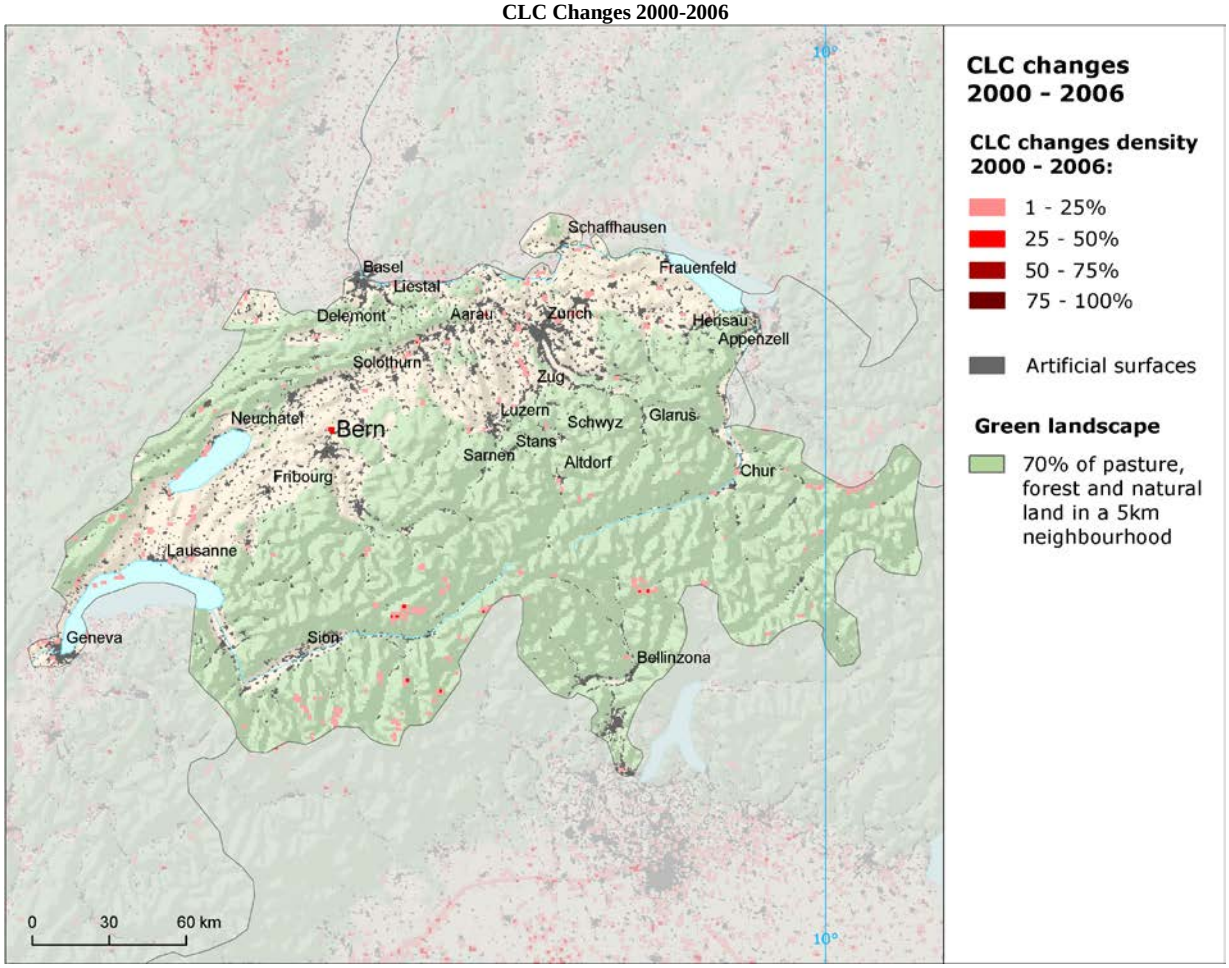


Switzerland

CLC Changes 2006-2012

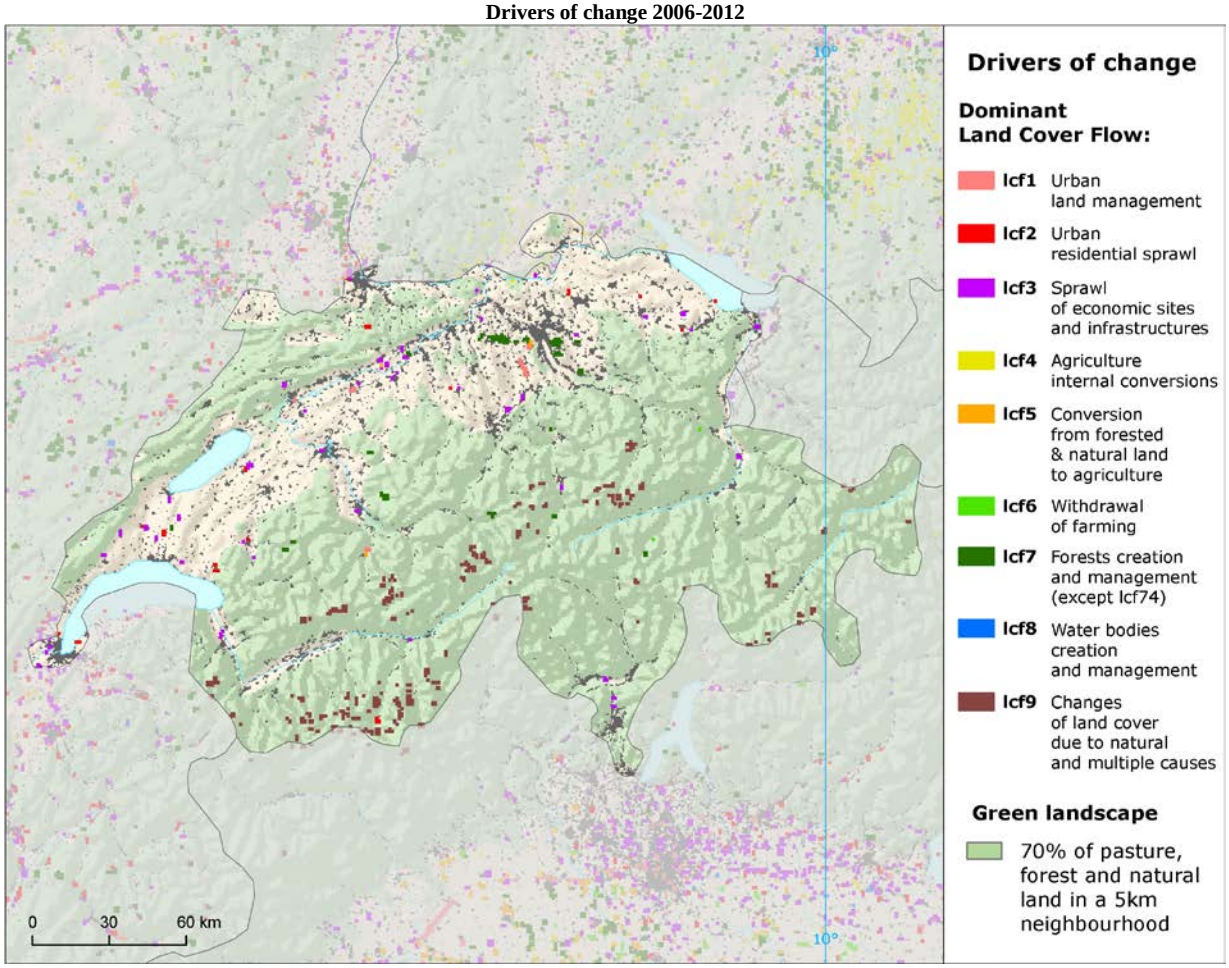


CLC Changes 2000-2006

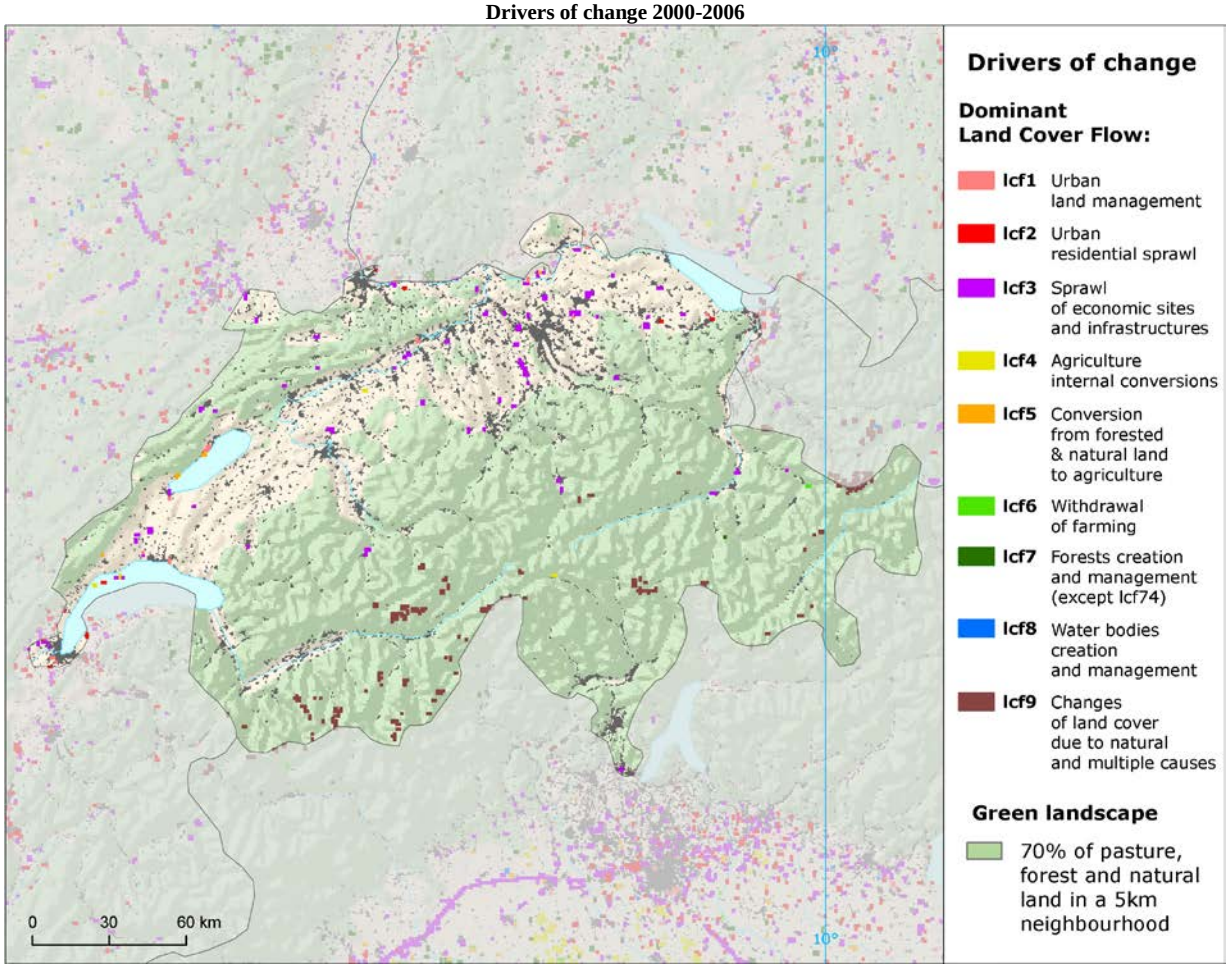


Switzerland

Drivers of change 2006-2012

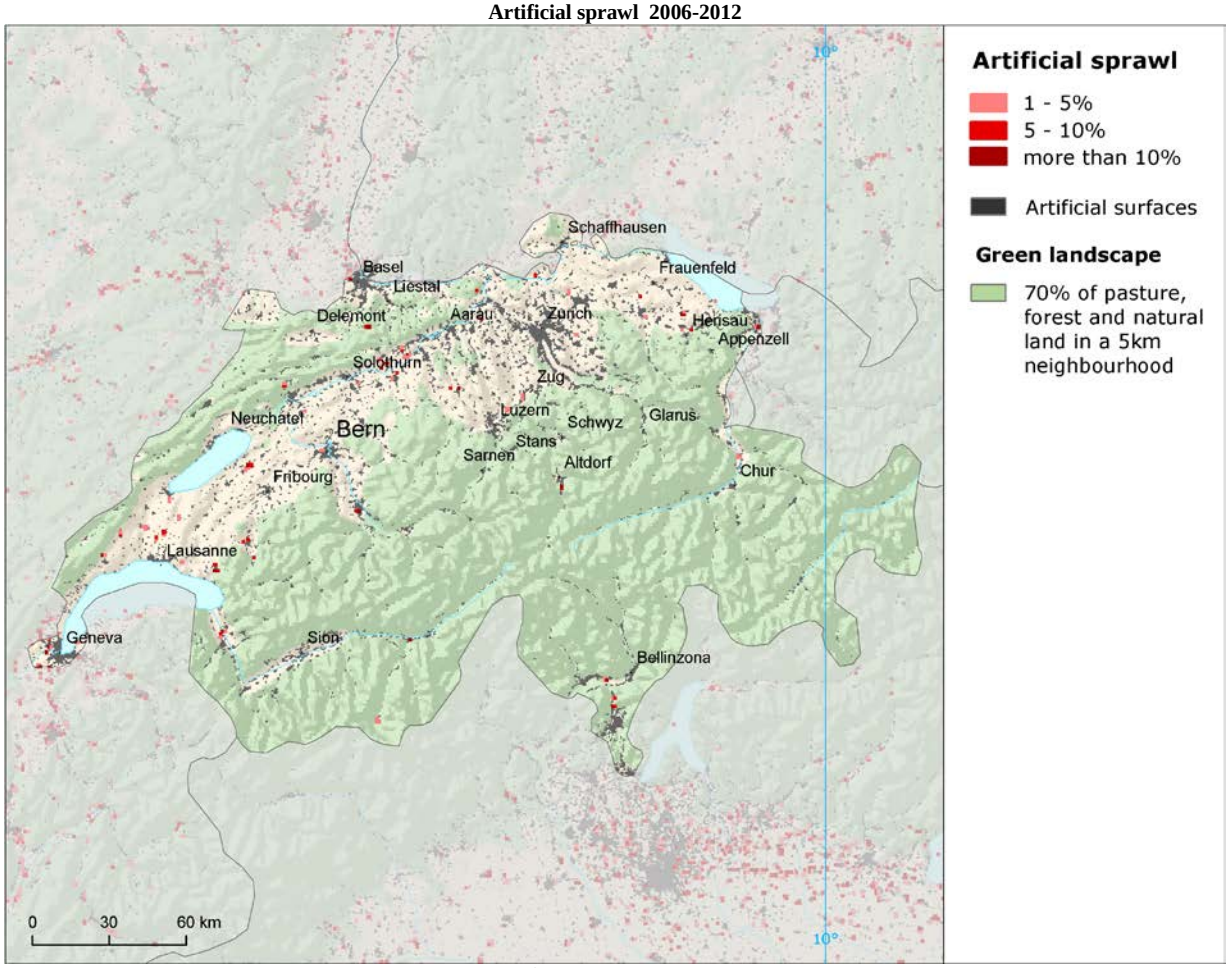


Drivers of change 2000-2006

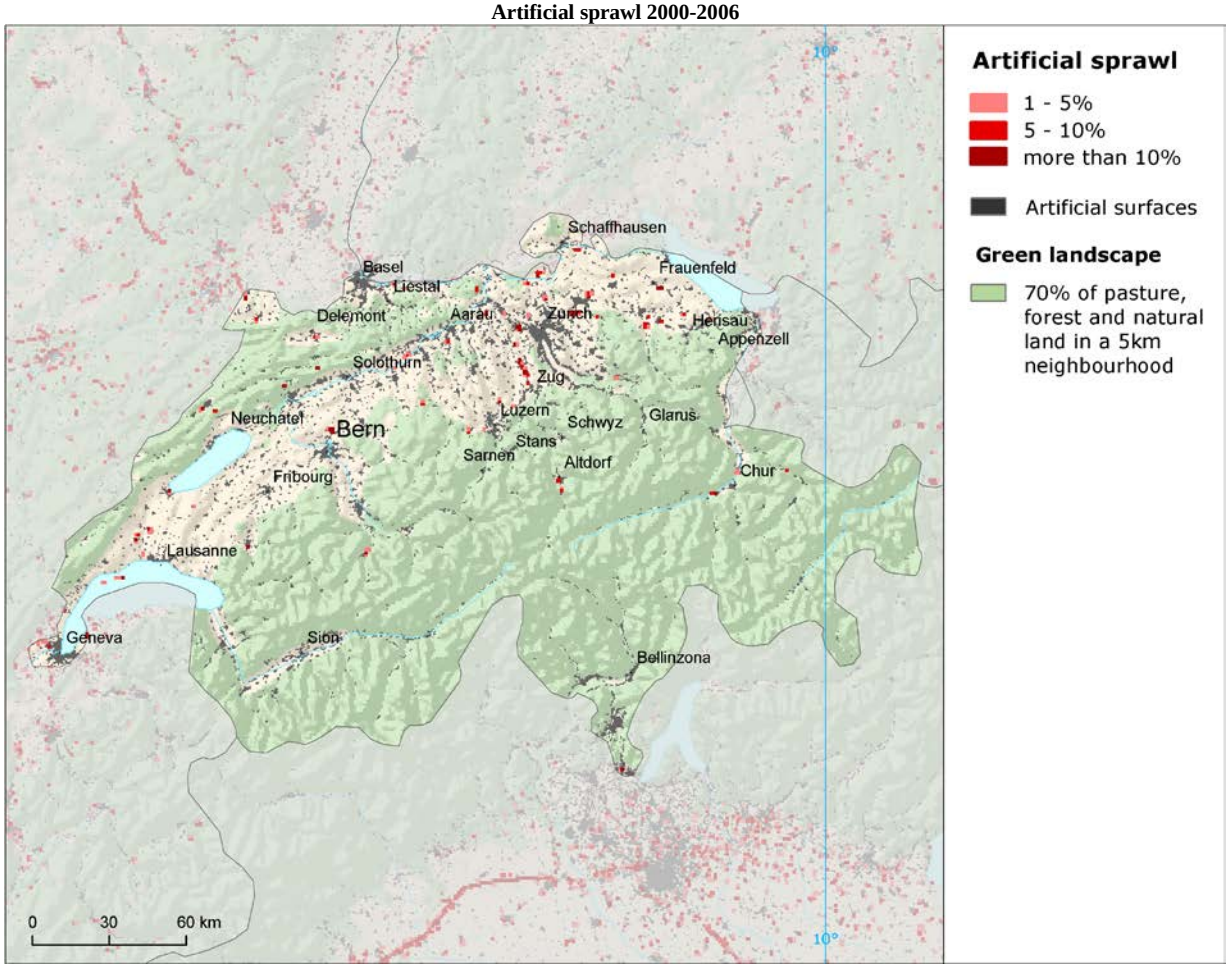


Switzerland

Artificial sprawl 2006-2012

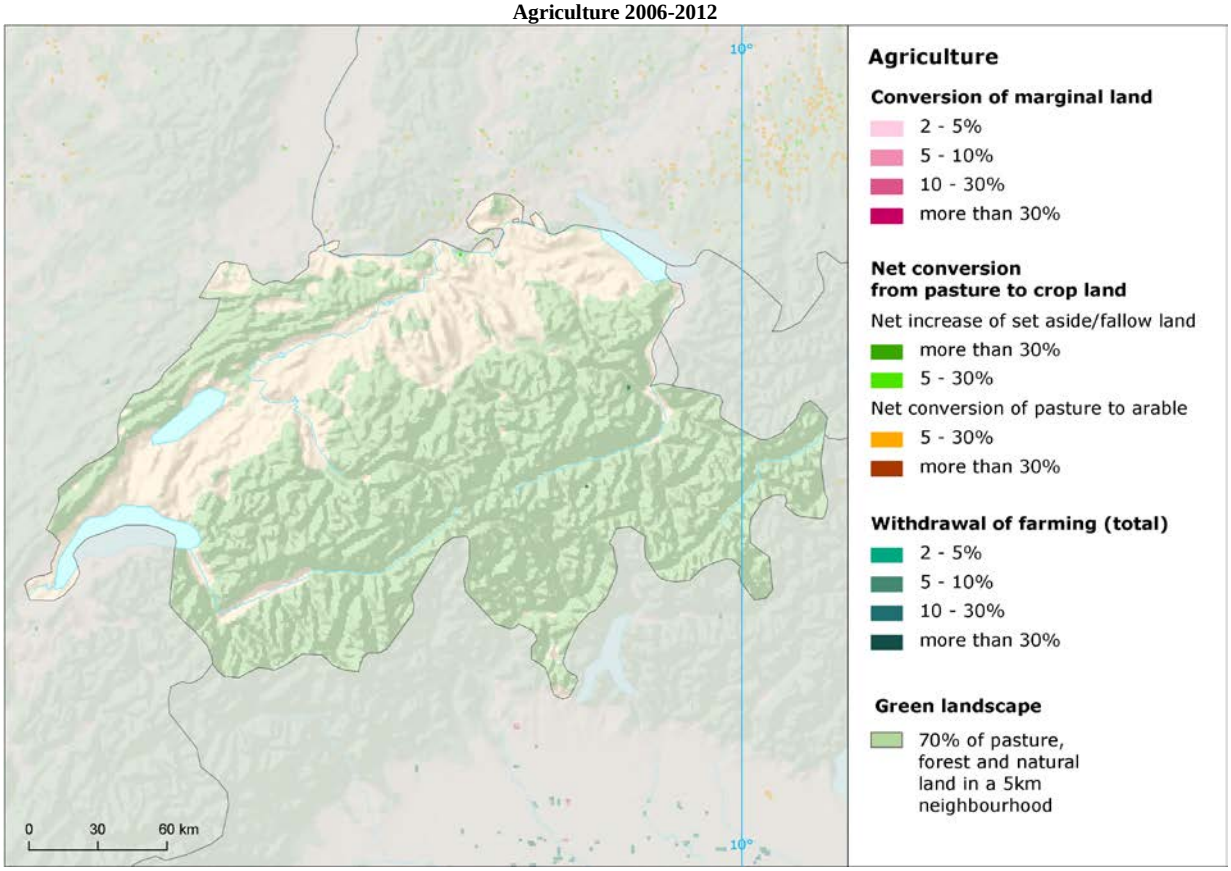


Artificial sprawl 2000-2006

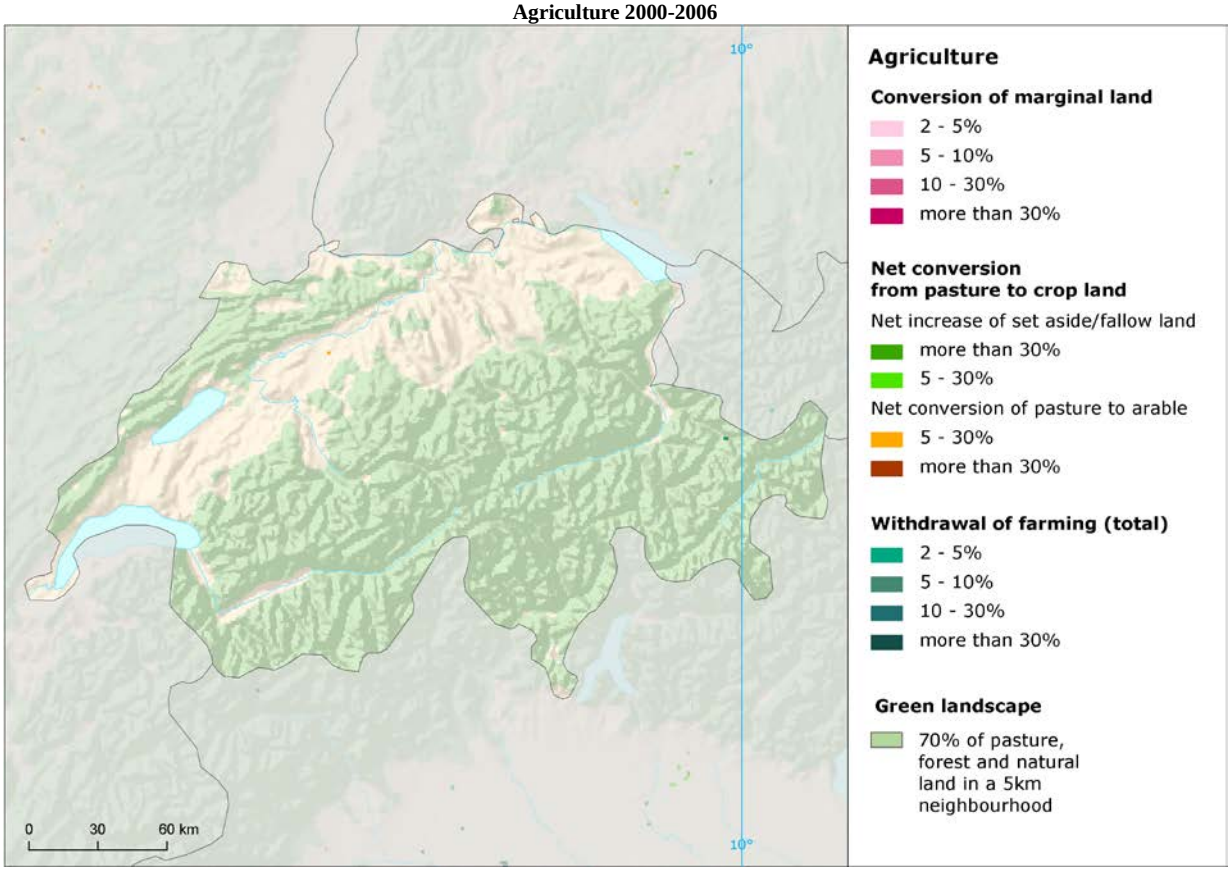


Switzerland

Agriculture 2006-2012

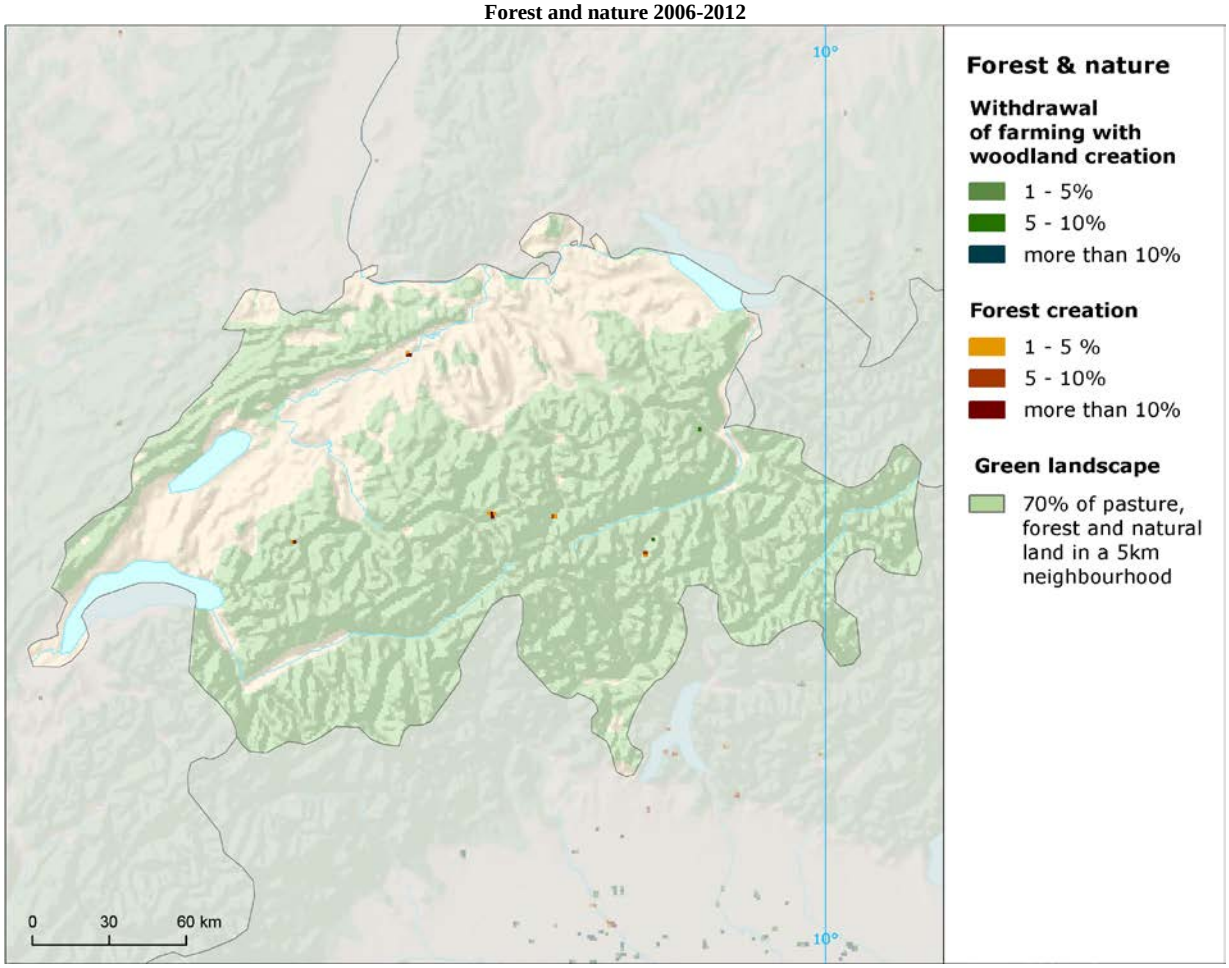


Agriculture 2000-2006



Switzerland

Forest and nature 2006-2012



Forest and nature 2000-2006