Country fact sheet

Land cover 2012

Kosovo*

September 2017

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*Under UNSCR 1244/99.

European Environment Agency

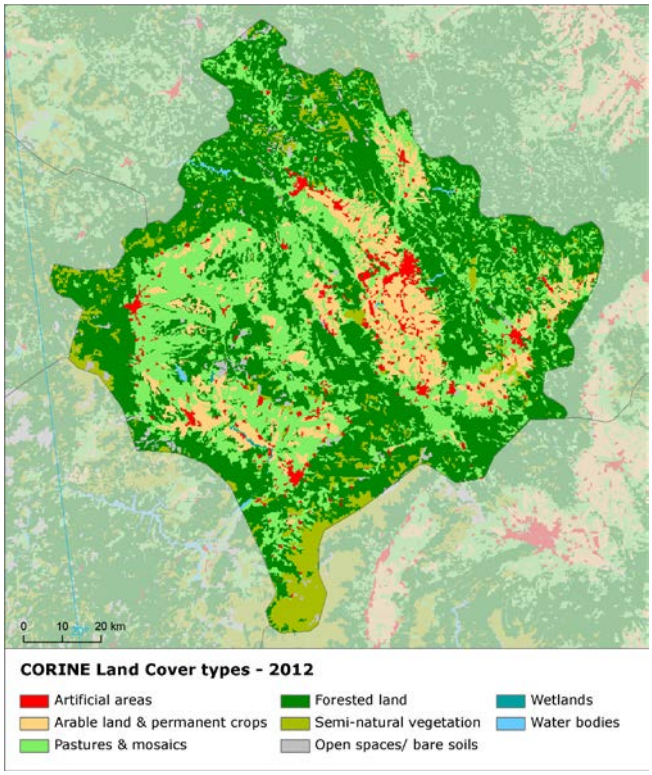
KOSOVO (under UNSCR 1244/99)

Land cover 2012

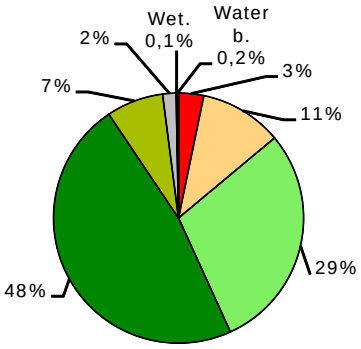
Overview of land cover & change 2006-2012

The overall pace of land cover development in Kosovo (under UNSCR 1244/99) is quite slow, with a mean annual land cover change rate of 0.10%, it is about one half of the European average. Moreover, compared to the previous period 2000-2006, the intensity of the landscape development is getting lower.
This slowdown is caused by rapid decrease of intensity of forest creation and management. This decrease concerns both forest internal conversions and afforestation of non-forested land.
In the period 2006-2012, the sprawl of economic sites and infrastructures, which occurred with significantly higher intensity than in the period 2000-2006, became the most powerful driver of land cover development in Kosovo (under UNSCR 1244/99). On the other hand, the urban residential sprawl, which was the main driver of artificial development in the previous period, became less intensive in the period 2006-2012. The overall intensity of artificial development in Kosovo (under UNSCR 1244/99) is the highest in Europe – with the mean annual land take rate of 1.38%, which is about two times higher than in the previous period (0.74%).
The second most intensive flow in the landscape of the country are agriculture internal conversions, which, however, occur with slightly lower intensity, compared to the previous period. These are represented mostly by conversion from pasture to arable land. There was also observed some amount of forest and shrub fires in the country, in the period 2006-2012, which is included in the flow "Changes due to natural and multiple causes".

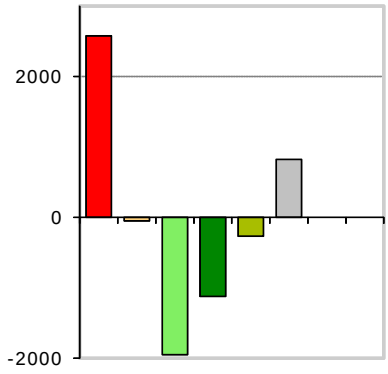
Note: The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over more than decade between 2000-2006-2012 - see Corine land cover (CLC) programme for details.
Number of years between CLC2006-CLC2012 data for Kosovo (under UNSC 1244/99): 6



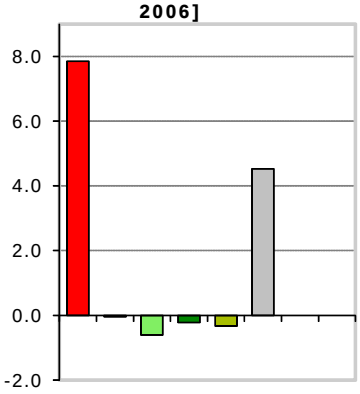
1.1. Land cover 2012 [% of total]



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



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



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

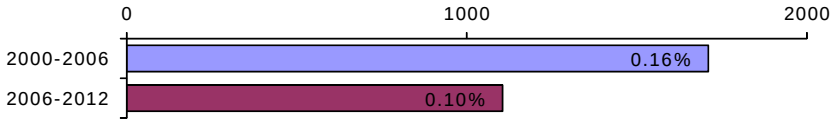
Summary balance table 2006-2012

	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	**328**	**1167**	**3213**	**5183**	**807**	**181**	**10**	**23**	**10912**
Consumption of initial LC	2.8	16.9	20.8	21.1	2.7	2.1	0.0	0.0	66
Formation of new LC	28.6	16.3	1.3	9.8	0.0	10.3	0.0	0.0	66
Net Formation of LC	**25.8**	**-0.5**	**-19.5**	**-11.3**	**-2.7**	**8.2**	**0.0**	**0.0**	**0**
Net formation as % of initial year	*7.8*	*0.0*	*-0.6*	*-0.2*	*-0.3*	*4.5*	*0.0*	*0.0*	
Total turnover of LC	**31.4**	**33.2**	**22.2**	**30.8**	**2.7**	**12.4**	**0.0**	**0.0**	**133**
Total turnover as % of initial year	*9.6*	*2.8*	*0.7*	*0.6*	*0.3*	*6.8*	*0.0*	*0.0*	*1.2*
Land cover 2012	**354**	**1166**	**3193**	**5172**	**804**	**189**	**10**	**23**	**10912**

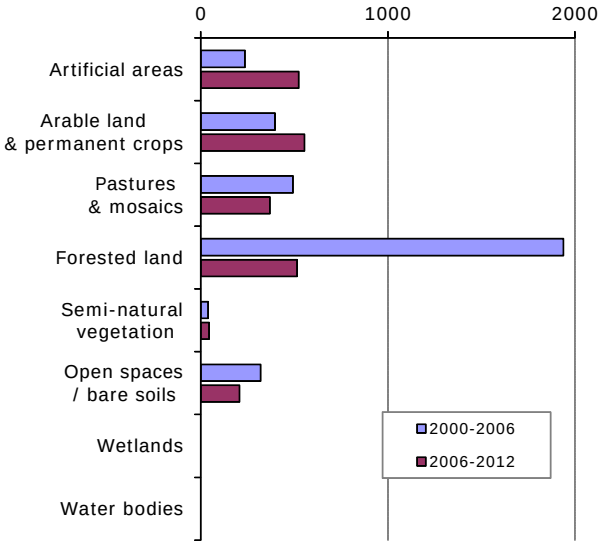
KOSOVO (under UNSCR 1244/99)

Land cover trends 2006-2012

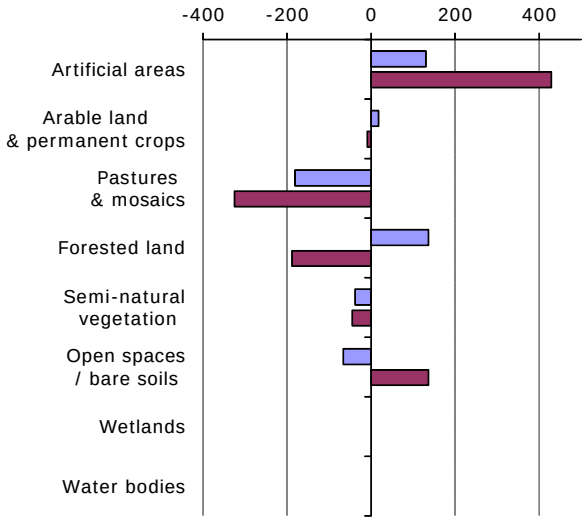
2.4. Annual land cover change [ha/year, % of total area]



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

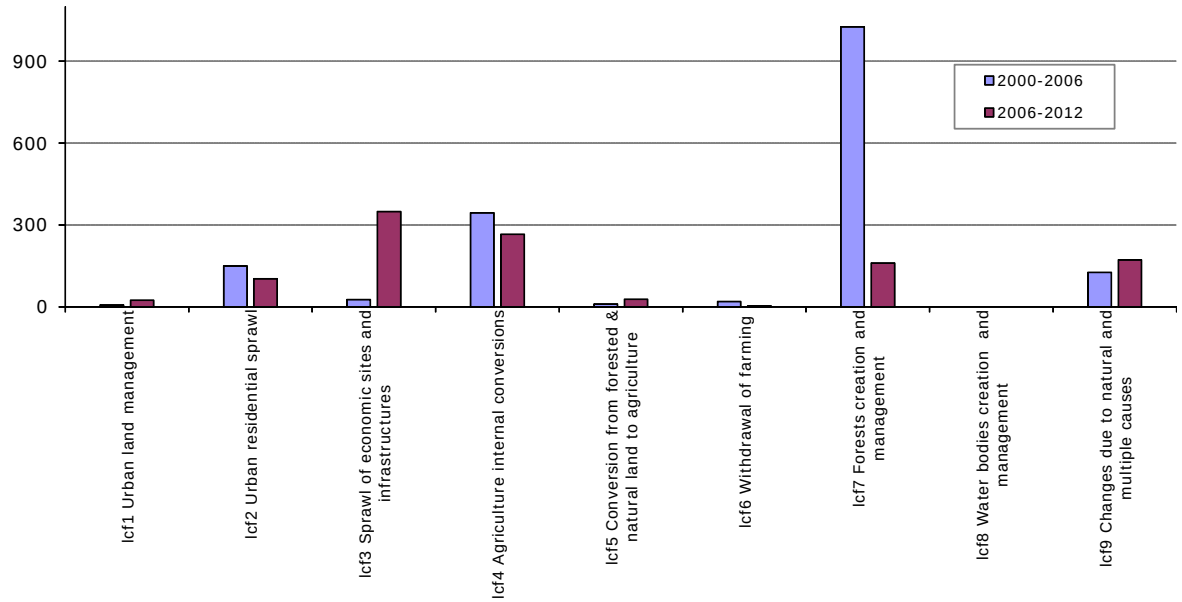


2.6. Net annual change of LC types [ha/year]



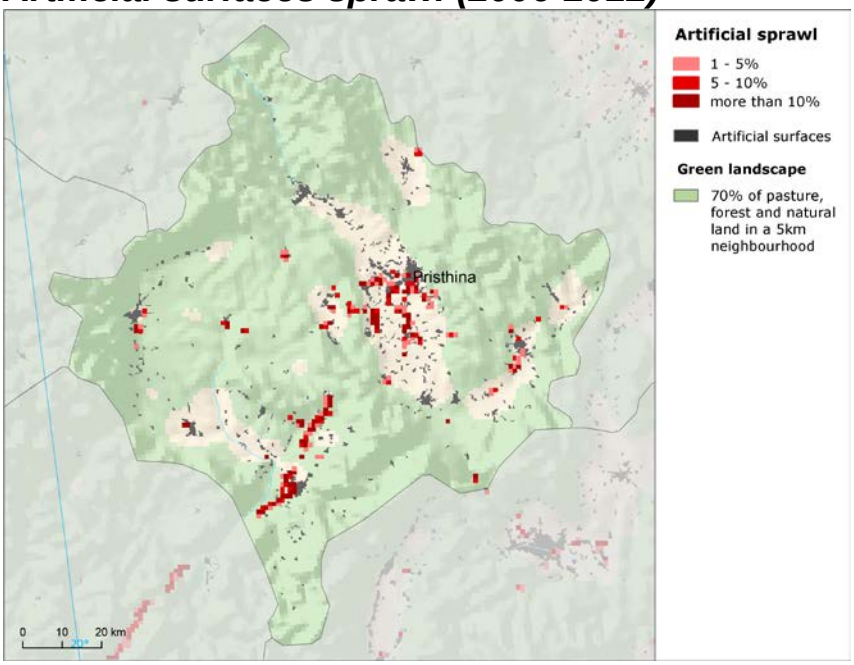
Summary trend figures	2000-2006
Annual land cover change [ha/year]	**1711**
Annual land cover change as % of initial year	**0.16%**
Land uptake by artificial development as mean annual change [ha/year]	177
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]	162
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]	-17
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]	223
Forest & other woodland net formation as mean annual change [ha/year]	137
Dry semi-natural land cover net formation as mean annual change [ha/year]	-104
Wetlands & water bodies net formation as mean annual change [ha/year]	0

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

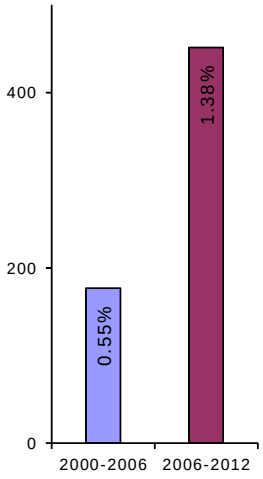


KOSOVO (under UNSCR 1244/99)

Artificial surfaces sprawl (2006-2012)



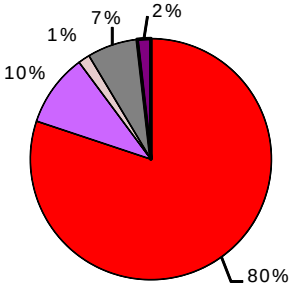
3.8. Artificial land take [ha/year, % of initial year]



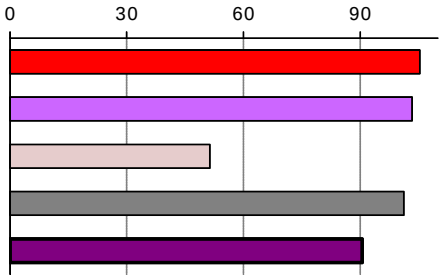
Extremely intensive artificial development in European context

The artificial development in Kosovo (under UNSCR 1244/99) between 2006 and 2012 is very strong, with even doubled intensity than in the previous period. The mean annual land take rate of 1.38% is by far the highest among European countries. Geographically, most of the artificial sprawl is concentrated in the surroundings of capital city of Pristhina and there is also quite visible the construction of a highway, located in the southwest from the capital city, which should connect Pristhina with the Adriatic coast. In contrast to the previous period, during which the artificial development was driven almost exclusively by residential sprawl, in the period 2006-2012, all components of the sprawl are very intensive, including sprawl of residential, commercial/industrial units, mines and dump sites as well as construction and extension of transportation networks.

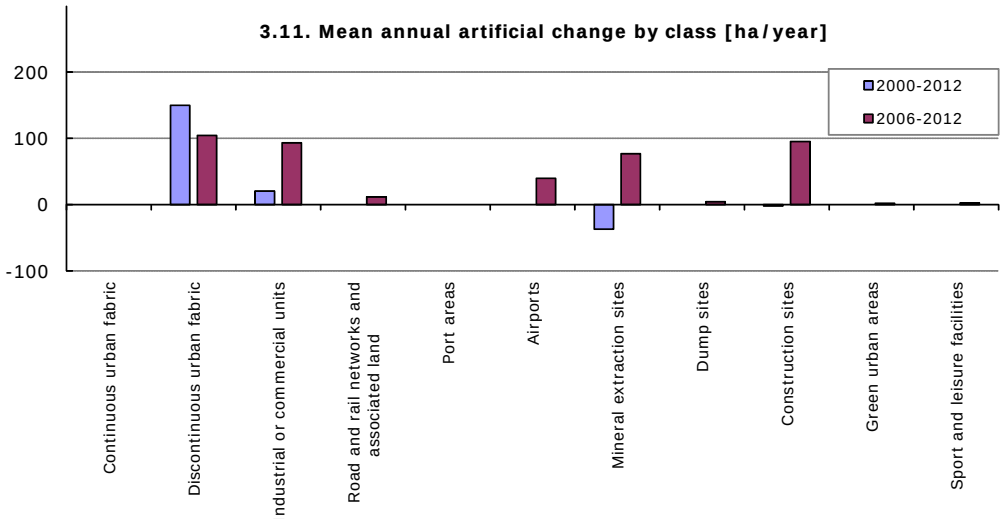
3.9. Artificial surfaces 2012 [% of total area]



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

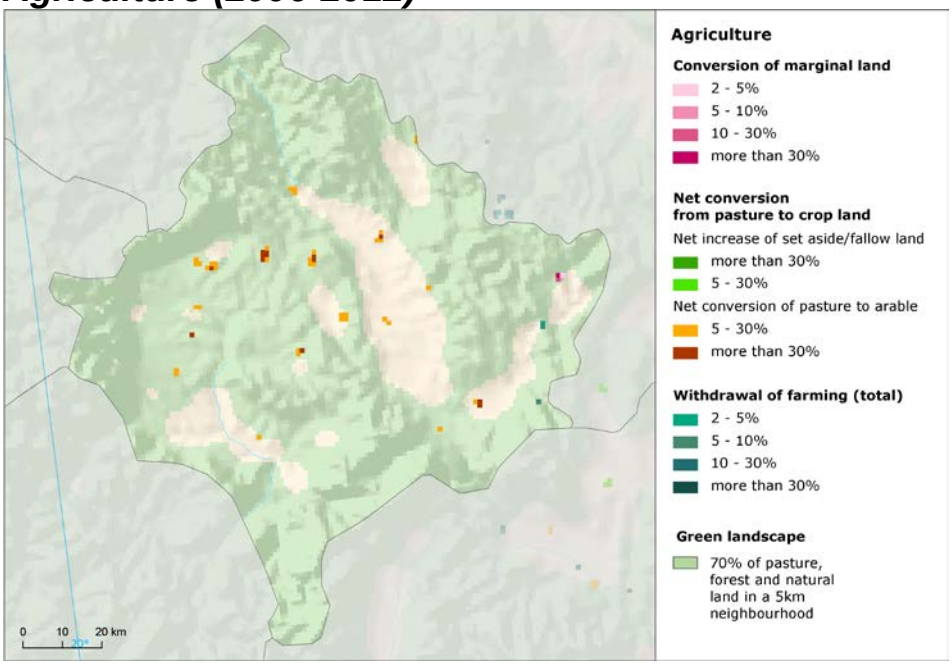


3.11. Mean annual artificial change by class [ha/year]



KOSOVO (under UNSCR 1244/99)

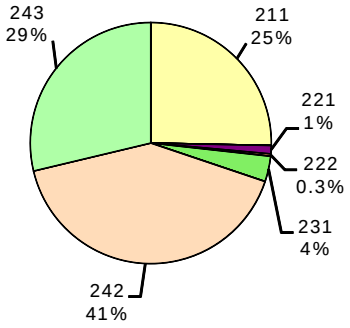
Agriculture (2006-2012)

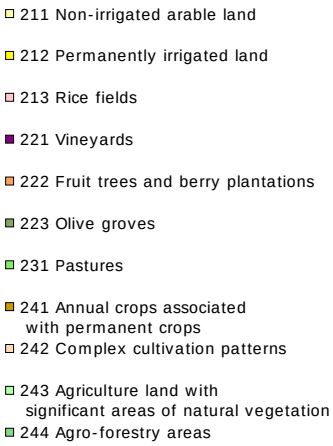


Intensive conversion from pasture to arable land

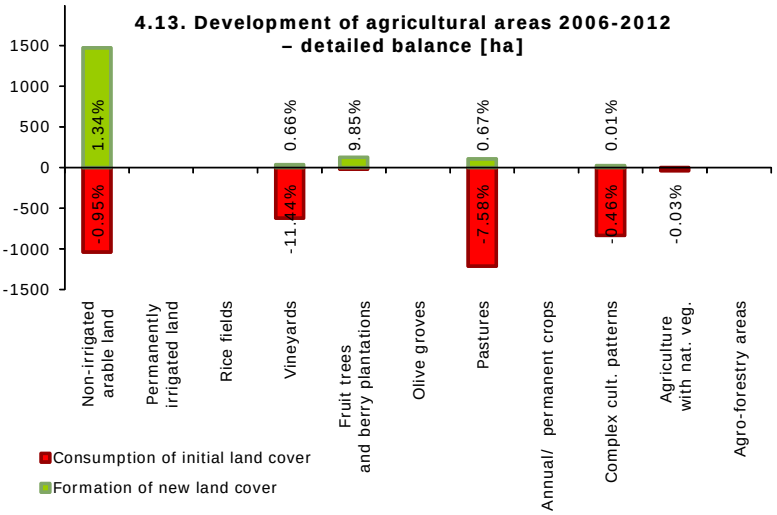
Agricultural development in the county is driven mainly by internal agricultural conversions, with prevailing share of intensive conversion of pasture to arable land. Geographically, this process concentrates mainly in the central part of the country. On the other hand, diffuse conversion from pasture to arable land lost most of its intensity, compared to the previous period. The other significant internal agricultural flow is the conversion from vineyards and orchards to arable land. From external flows, agricultural land - mainly arable and complex cultivation patterns - is consumed by the sprawl of economic sites and infrastructures and also by residential sprawl. As a result of all these processes, arable land shows only a slightly positive net change balance, on the other hand, almost 7% of pasture land has been consumed during the period 2006-2012. The other agricultural land cover class with significant consumption are vineyards, with a consumption rate of about 11% of initial area.

4.12. Agricultural areas 2012 [% of total area]

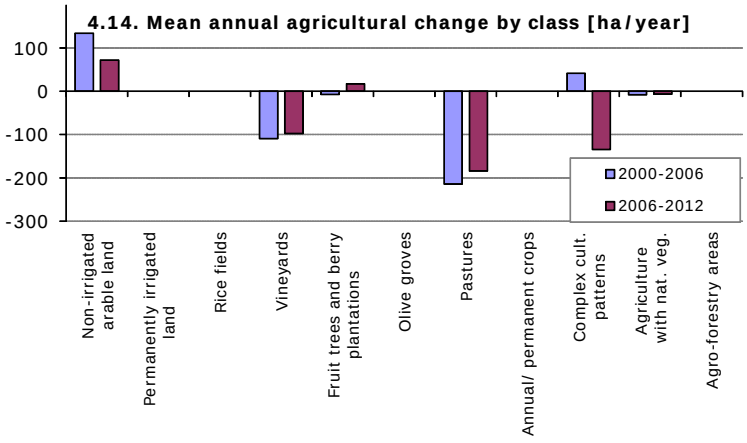




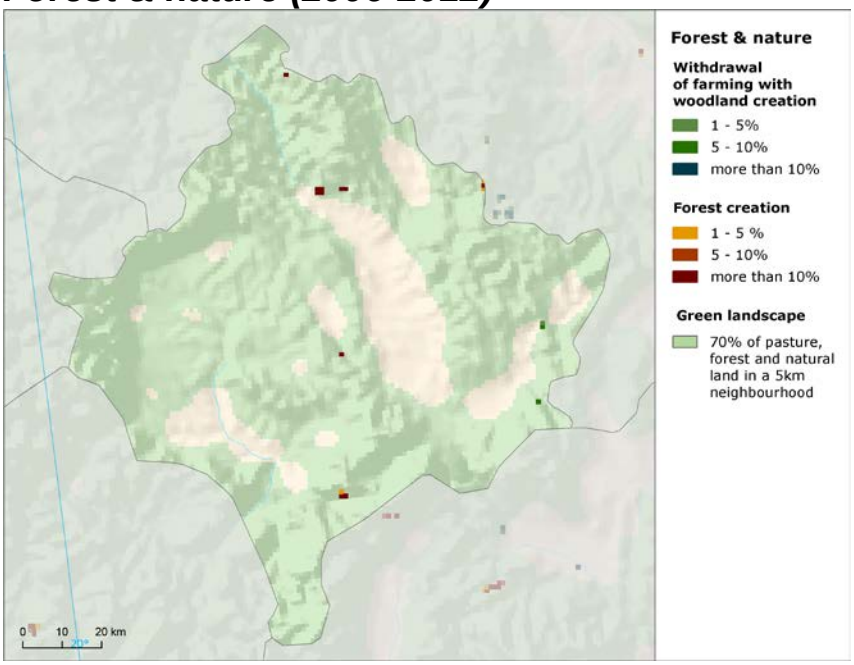
4.13. Development of agricultural areas 2006-2012 – detailed balance [ha]

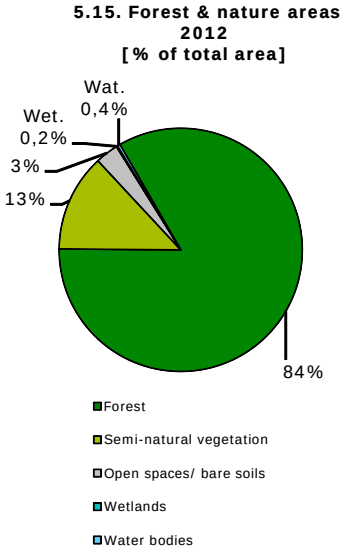


4.14. Mean annual agricultural change by class [ha/year]



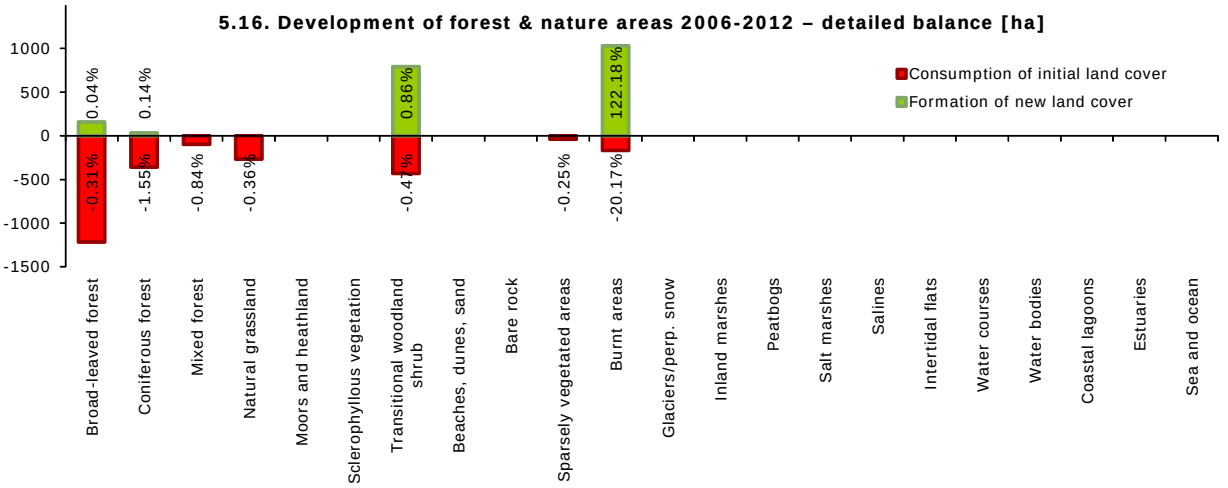
Forest & nature (2006-2012)

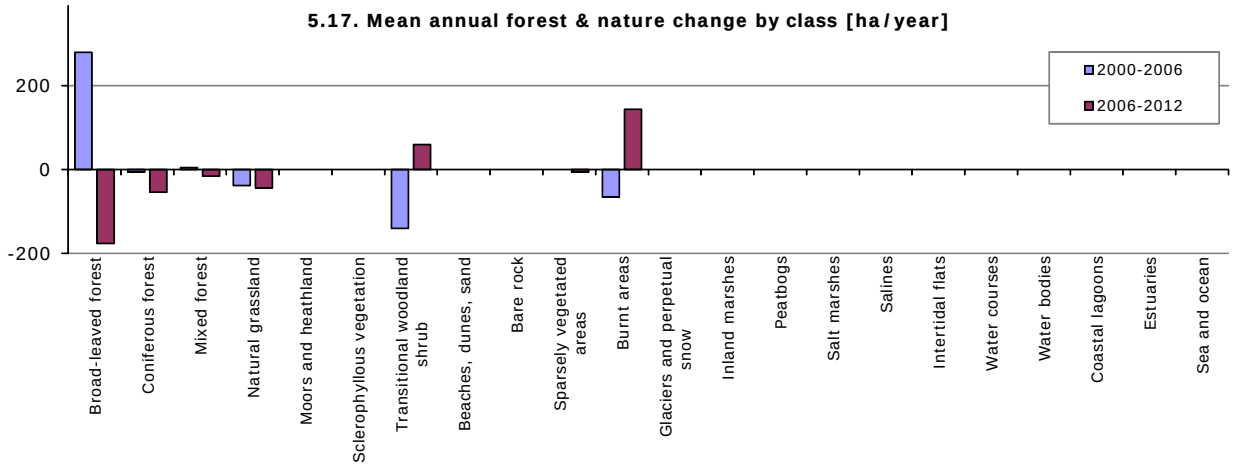




Slowdown of forest internal conversions, forest fires

The exchange of natural landscape in Kosovo (under UNSCR 1244/99) lost most of its intensity, compared to the previous period, mainly due to significant slowdown of internal forest conversions, in particular of conversion from transitional woodland to forest. In the period 2006-2012, the main processes which occurred in the country landscape were forest and shrub fires. These consumed more than 1000 hectares of natural land, mainly of broad-leaved forest. Such fires were also present in the previous period 2000-2006, however, with slightly lower incidence and recently some of areas burnt between 2000 and 2006 are going through afforestation processes. Beside these processes, natural land (in particular transitional woodland/shrub, natural grassland and broad-leaved forest) is being consumed by the extension of mineral extraction and construction sites, which is a similar situation as in the previous period 2000-2006.

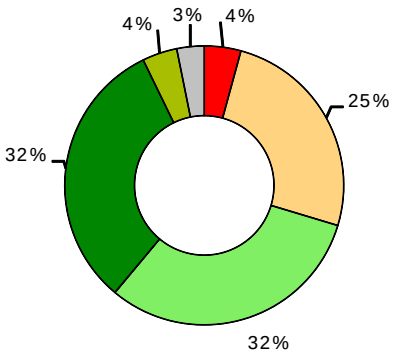




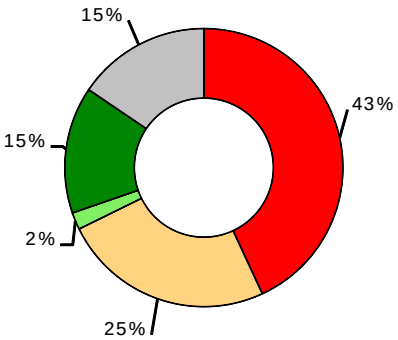
Annex: Land cover flows and trends

Land cover flows 2006-2012

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

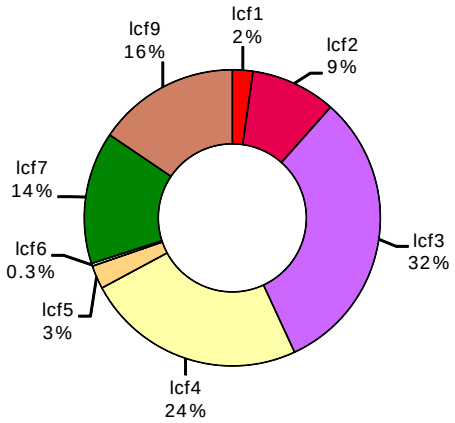


6.19. Formation of land cover 2006-2012 [% of total change area]



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]

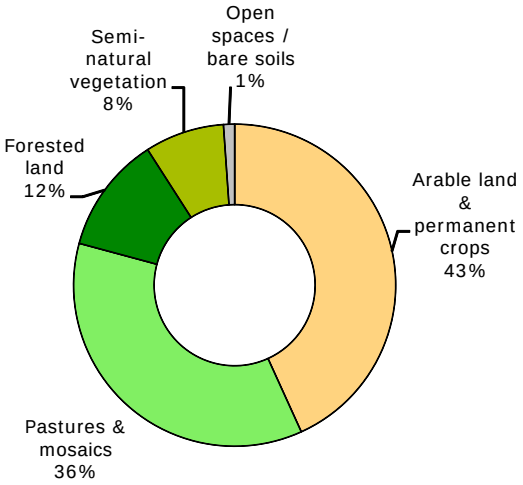


lcf1 Urban land management
lcf2 Urban residential sprawl
lcf3 Sprawl of economic sites and infrastructures
lcf4 Agriculture internal conversions
lcf5 Conversion from forested & natural land to agriculture
lcf6 Withdrawal of farming
lcf7 Forests creation and management
lcf8 Water bodies creation and management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

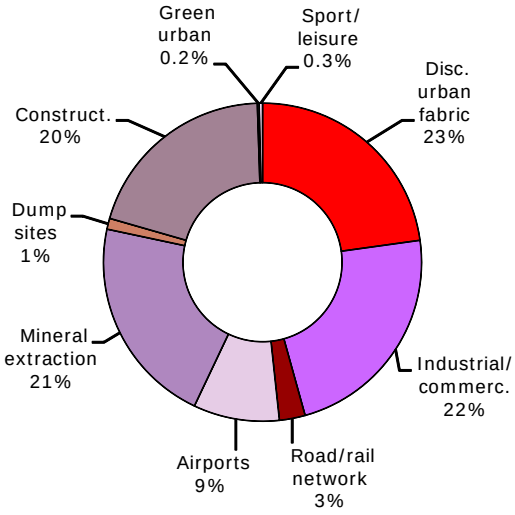
KOSOVO (under UNSCR 1244/99)

Artificial areas

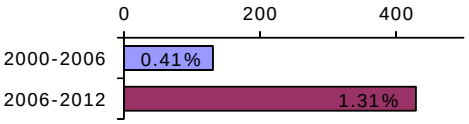
7.21. Consumption by artificial land take 2006-2012 [% of total]



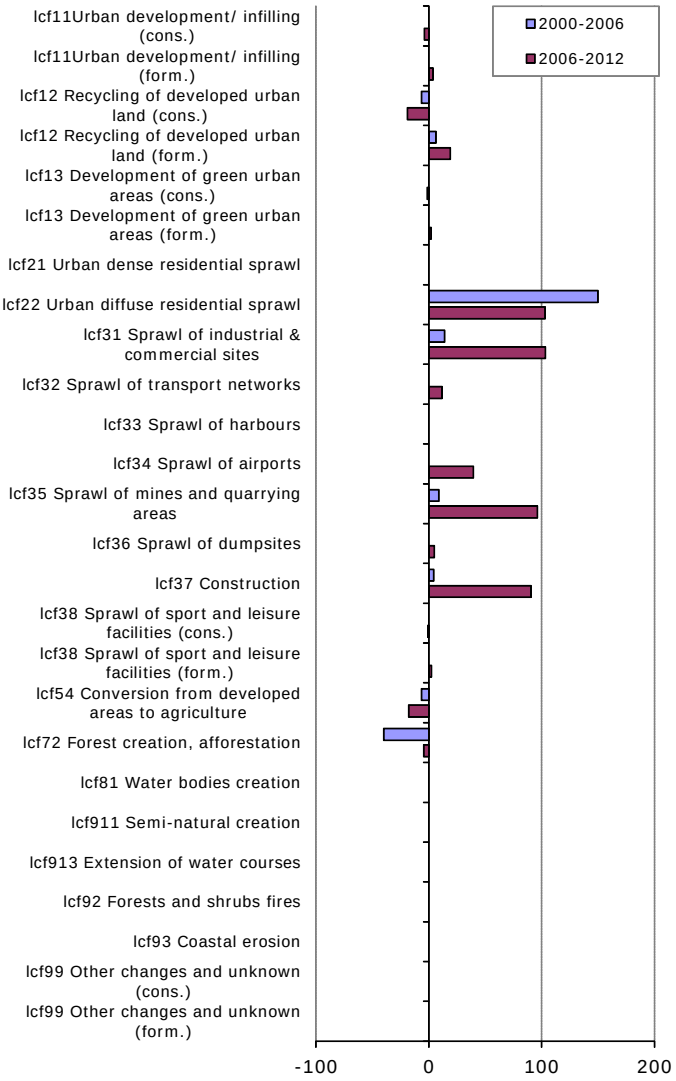
7.22. Formation by artificial land take 2006-2012 [% of total]



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



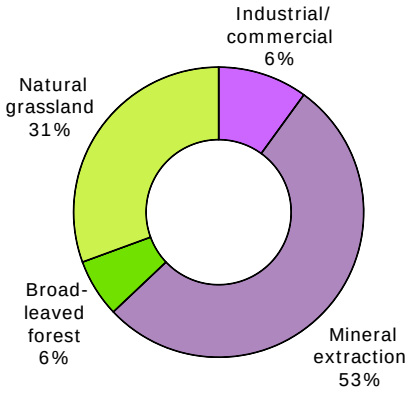
7.24. Artificial development by change drivers (LC FLOWS) [ha/year]



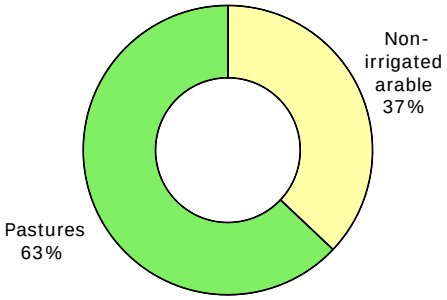
KOSOVO (under UNSCR 1244/99)

Agriculture

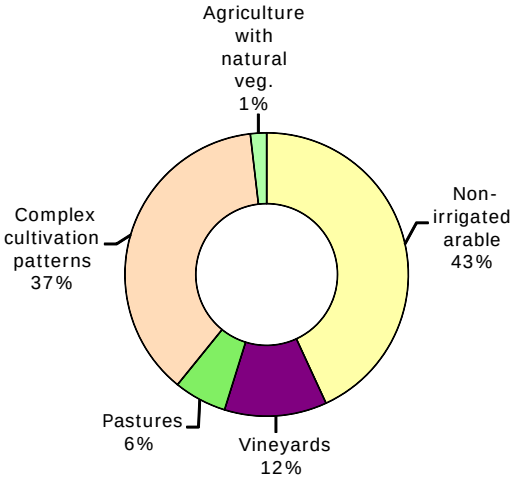
8.25. LC consumed by agriculture 2006-2012 [% of total]



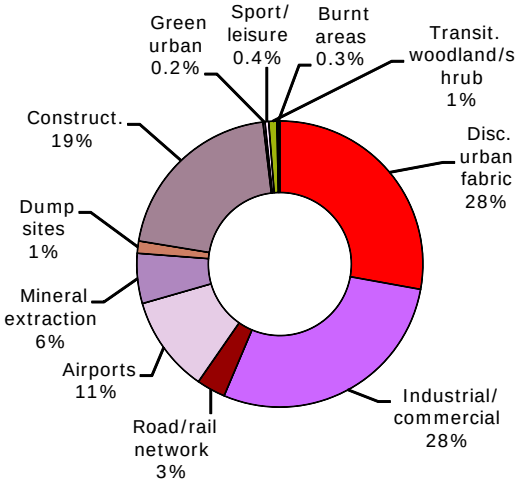
8.26. Formation of agricultural land from non-agriculture 2006-2012 [% of total]



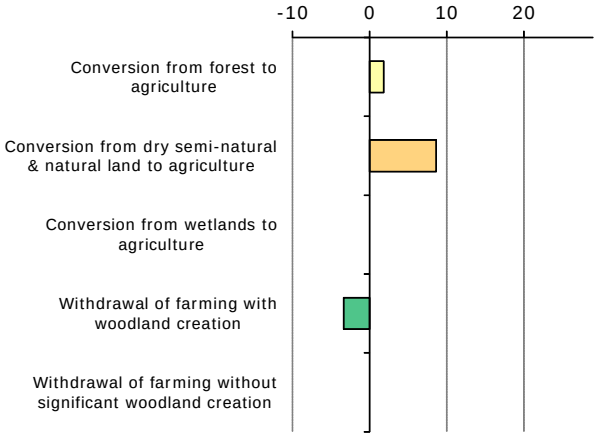
8.27. Consumption of agricultural land by non-agriculture 2006-2012 [% of total]



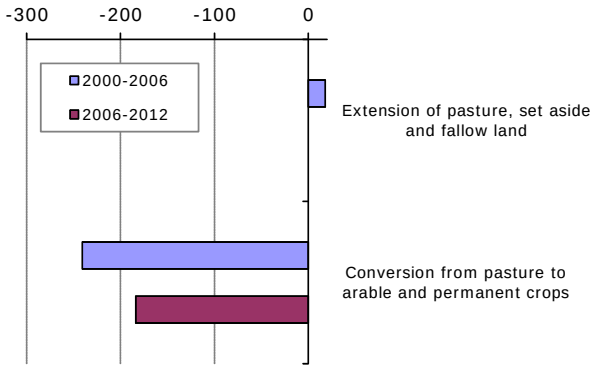
8.28. Formation of non-agricultural land from agriculture 2006-2012 [% of total]



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

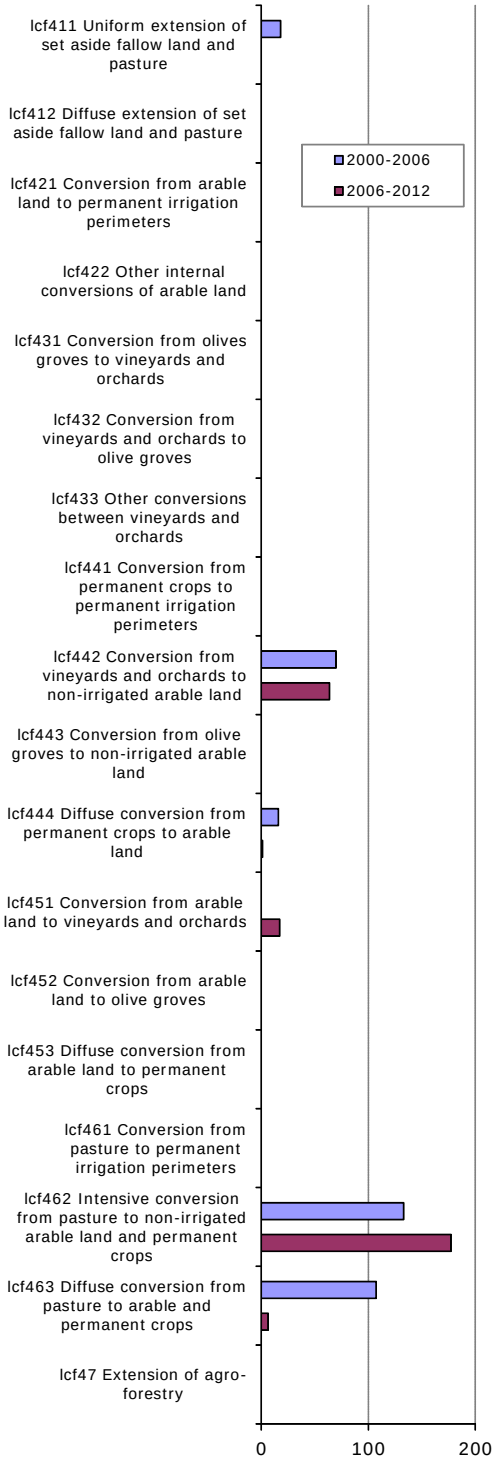


8.30. Mean annual conversion between arable land and pasture [ha/year]

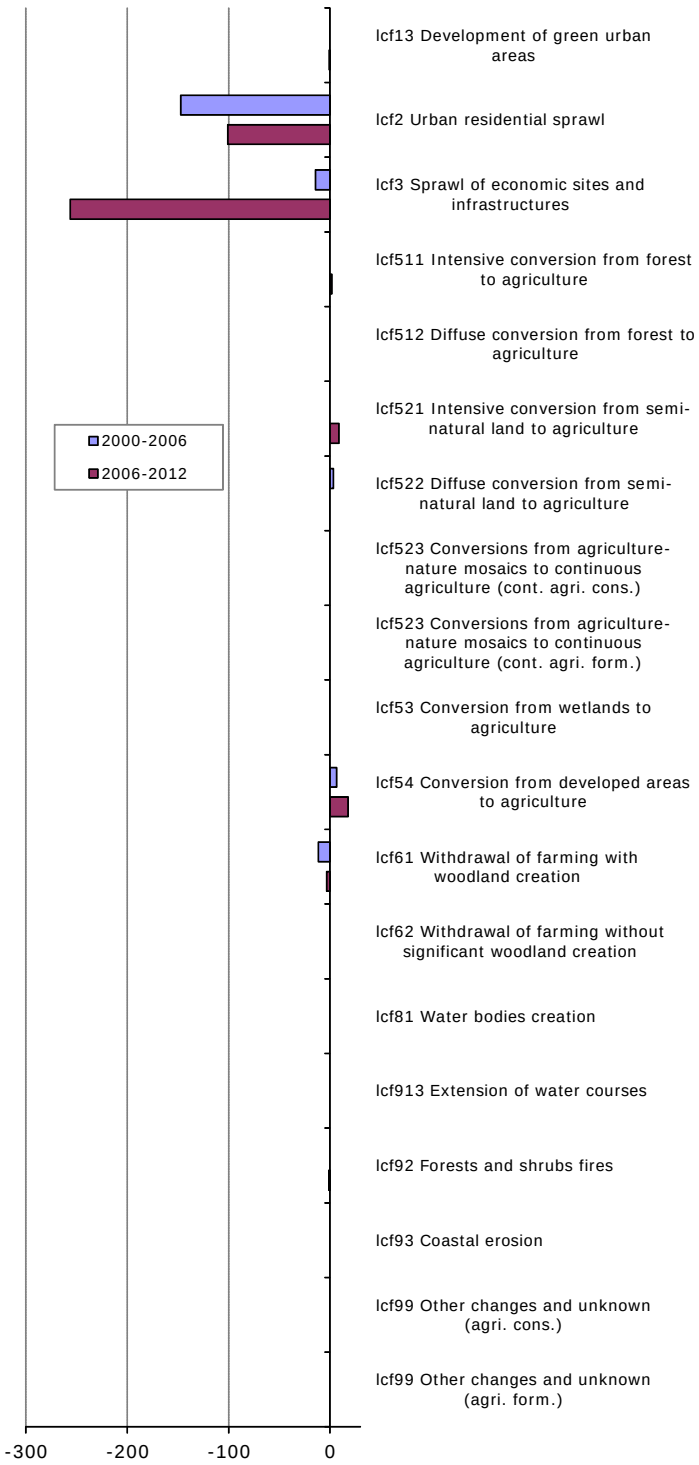


KOSOVO (under UNSCR 1244/99)

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



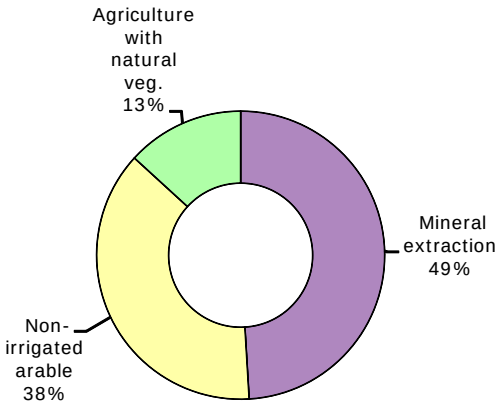
9.32. Mean annual conversions between agriculture and other LC types [ha / year]



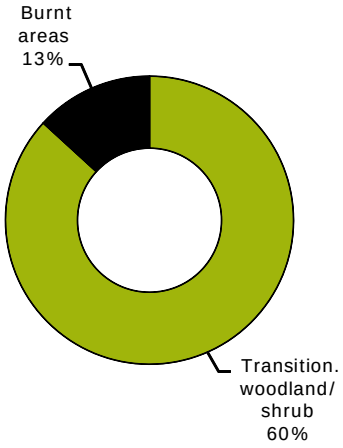
KOSOVO (under UNSCR 1244/99)

Forest & nature

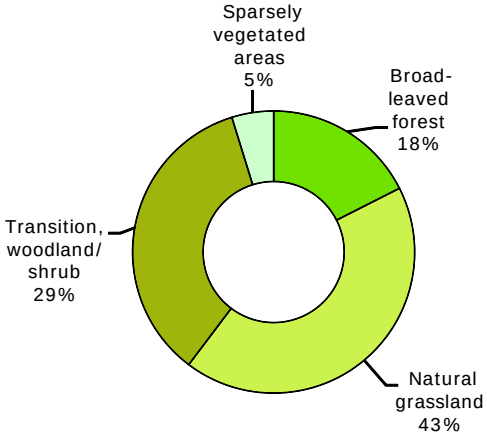
10.33. LC consumed by forest & nature 2006-2012 [% of total]



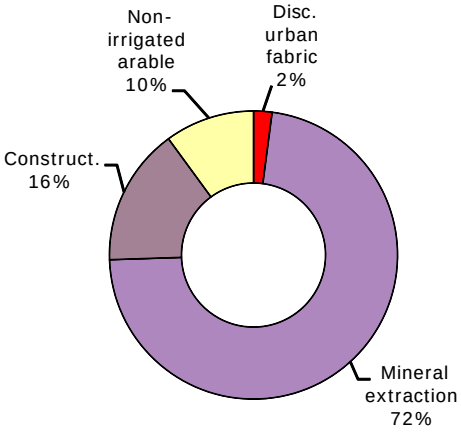
10.34. Formation of forest & nature land from non-forest /nature 2006-2012 [% of total]



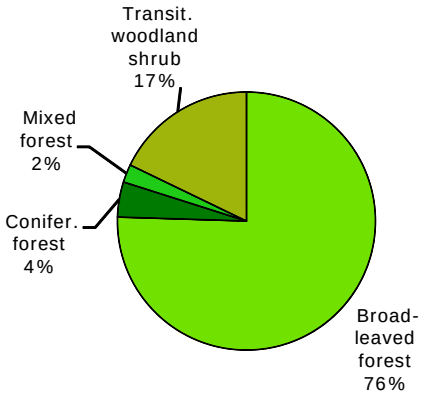
10.35. Consumption of forest & nature land by non-forest/nature 2006-2012 [% of total]



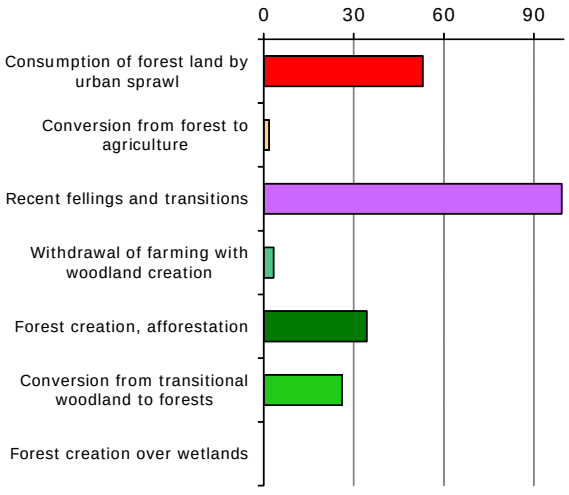
10.36. Formation of non-forest/nature land from forest & nature 2006-2012 [% of total]



10.37. Forested land 2012 [% of total area]

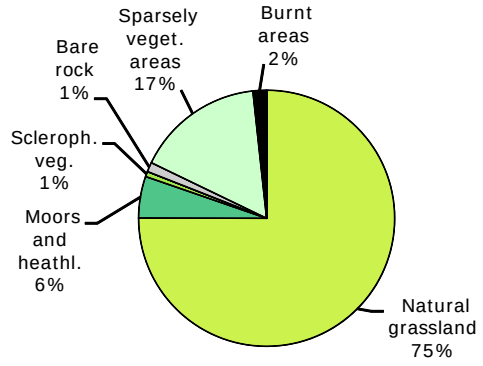


10.38. Main trends in woodland & forests consumption/formation 2006-2012 [ha/year]

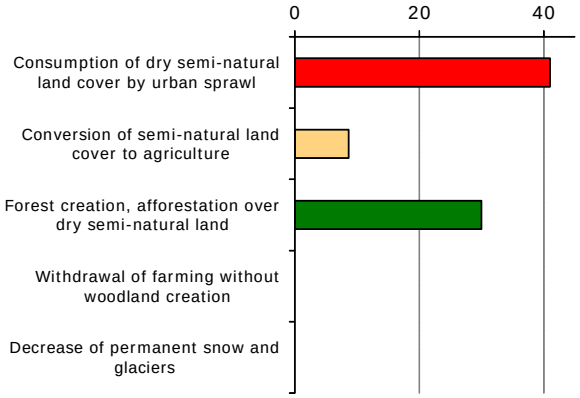


KOSOVO (under UNSCR 1244/99)

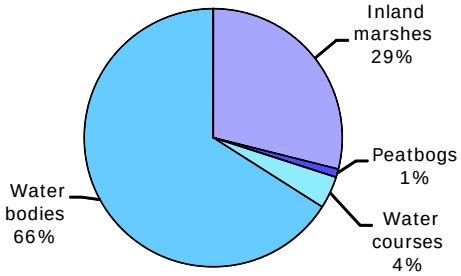
11.39. Dry semi-natural areas 2012 [% of total area]



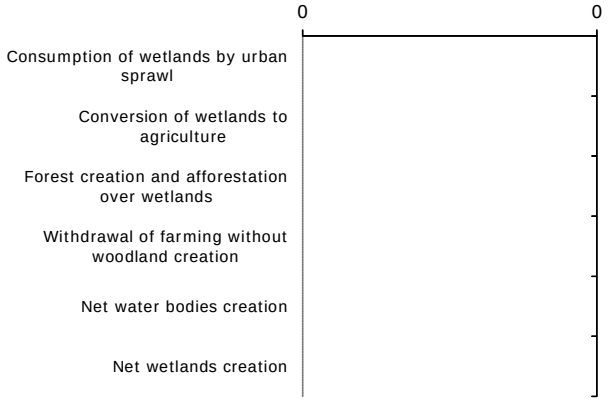
11.40. Main trends in dry semi-natural land consumption/formation 2006-2012 [ha/year]



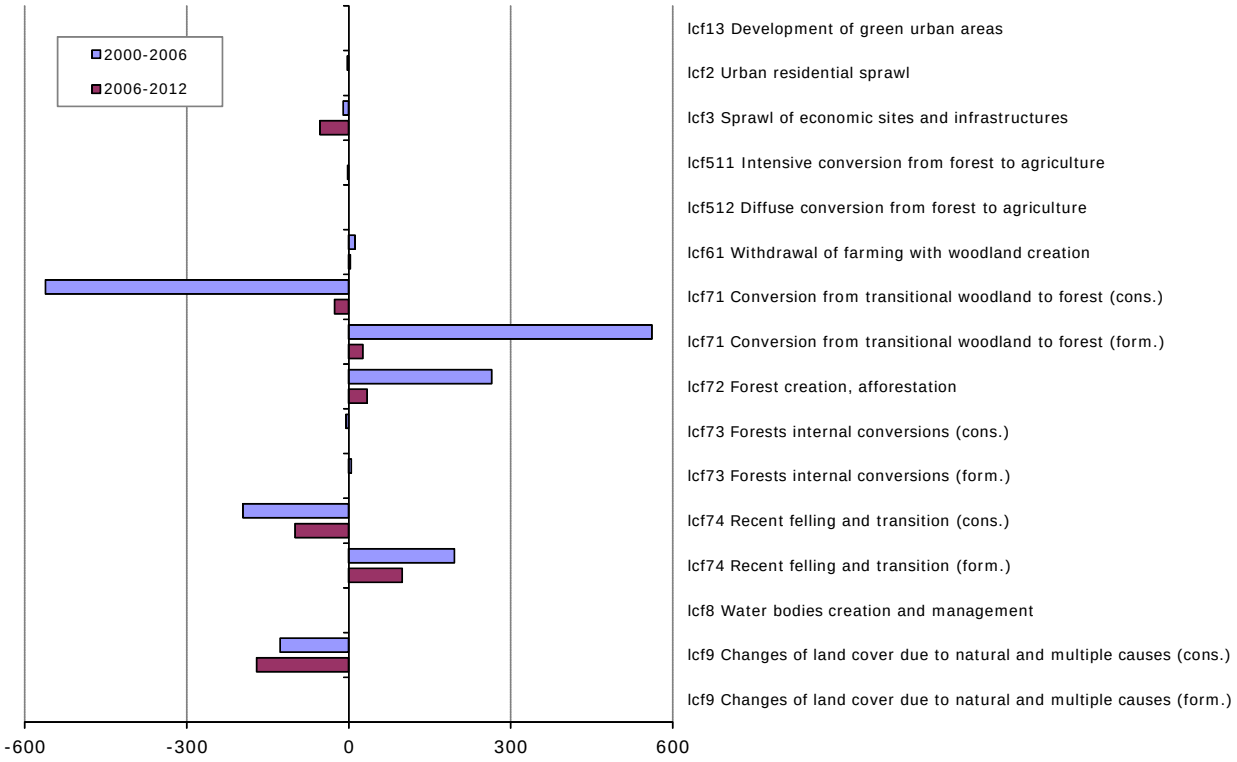
11.41. Wetlands & water 2012 [% of total area]



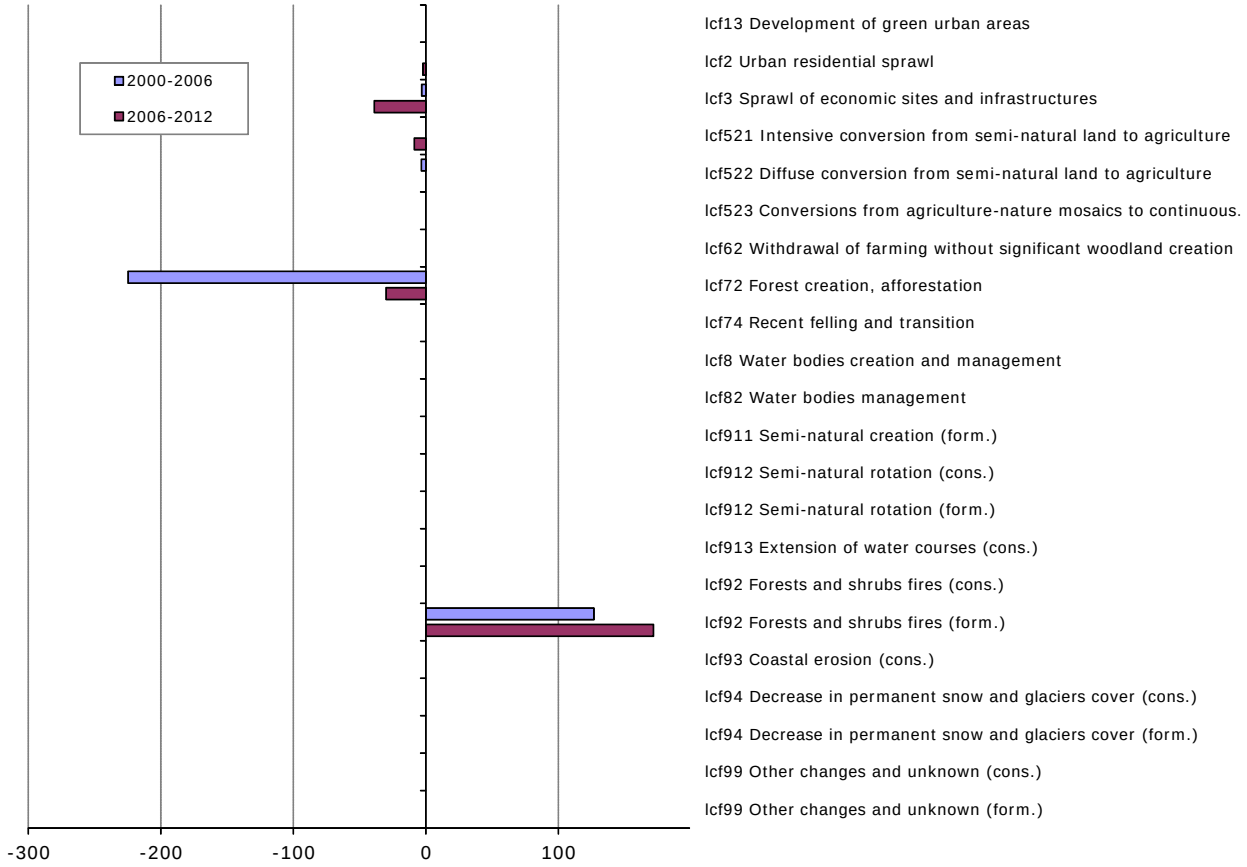
11.42. Main trends in wetlands & water consumption/formation 2006-2012 [ha/year]



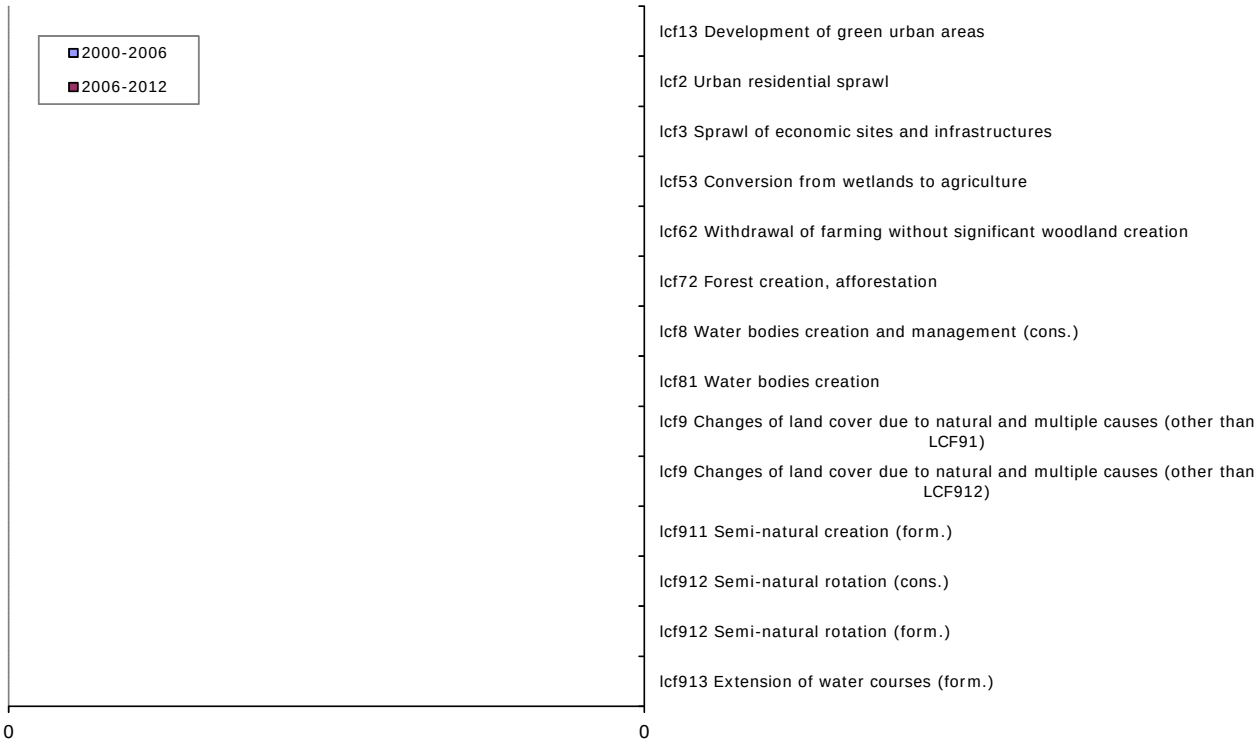
11.43. Mean annual conversions of forest & other woodland [ha/year]



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

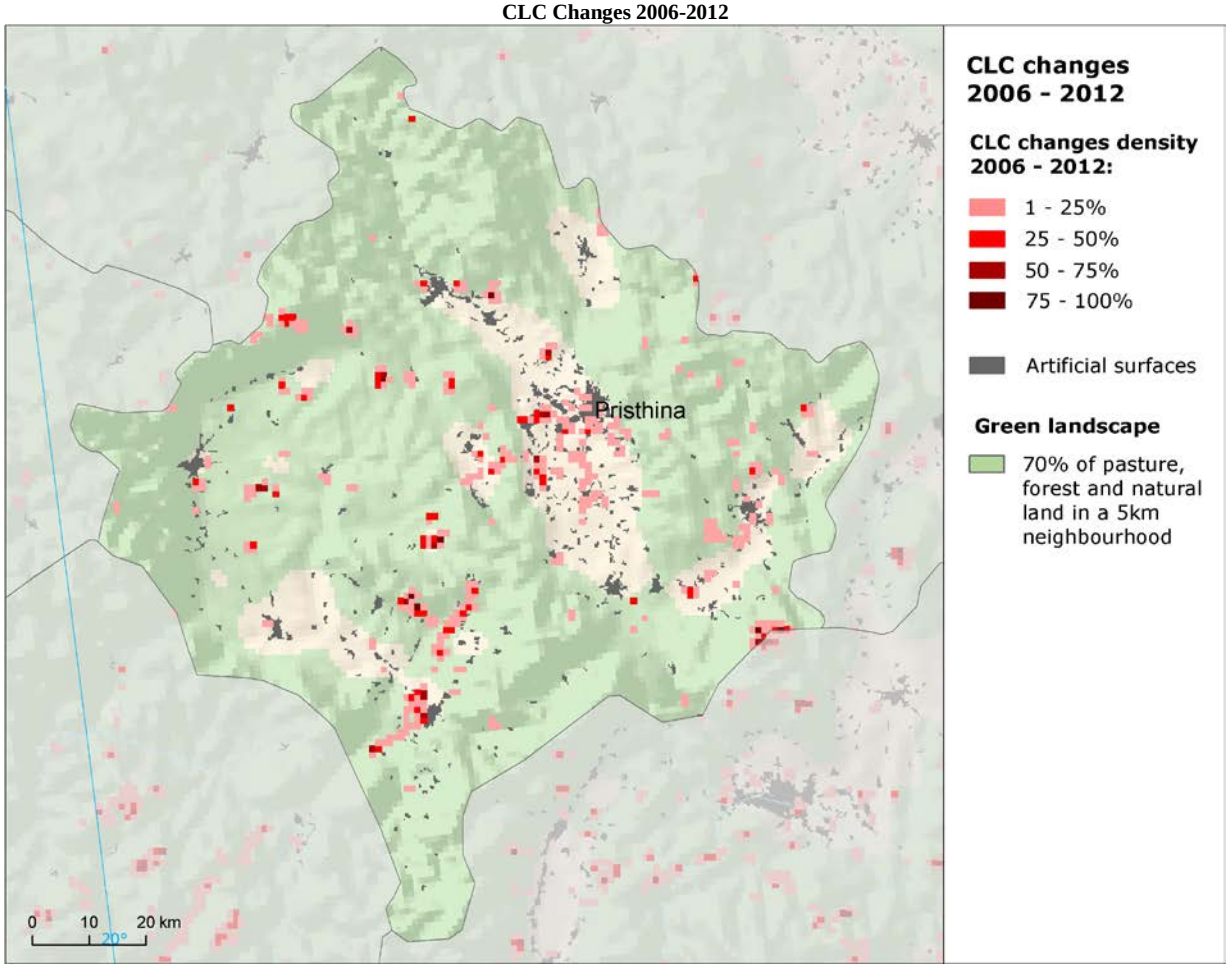


12.45. Mean annual conversions of wetlands and water LC [ha/year]

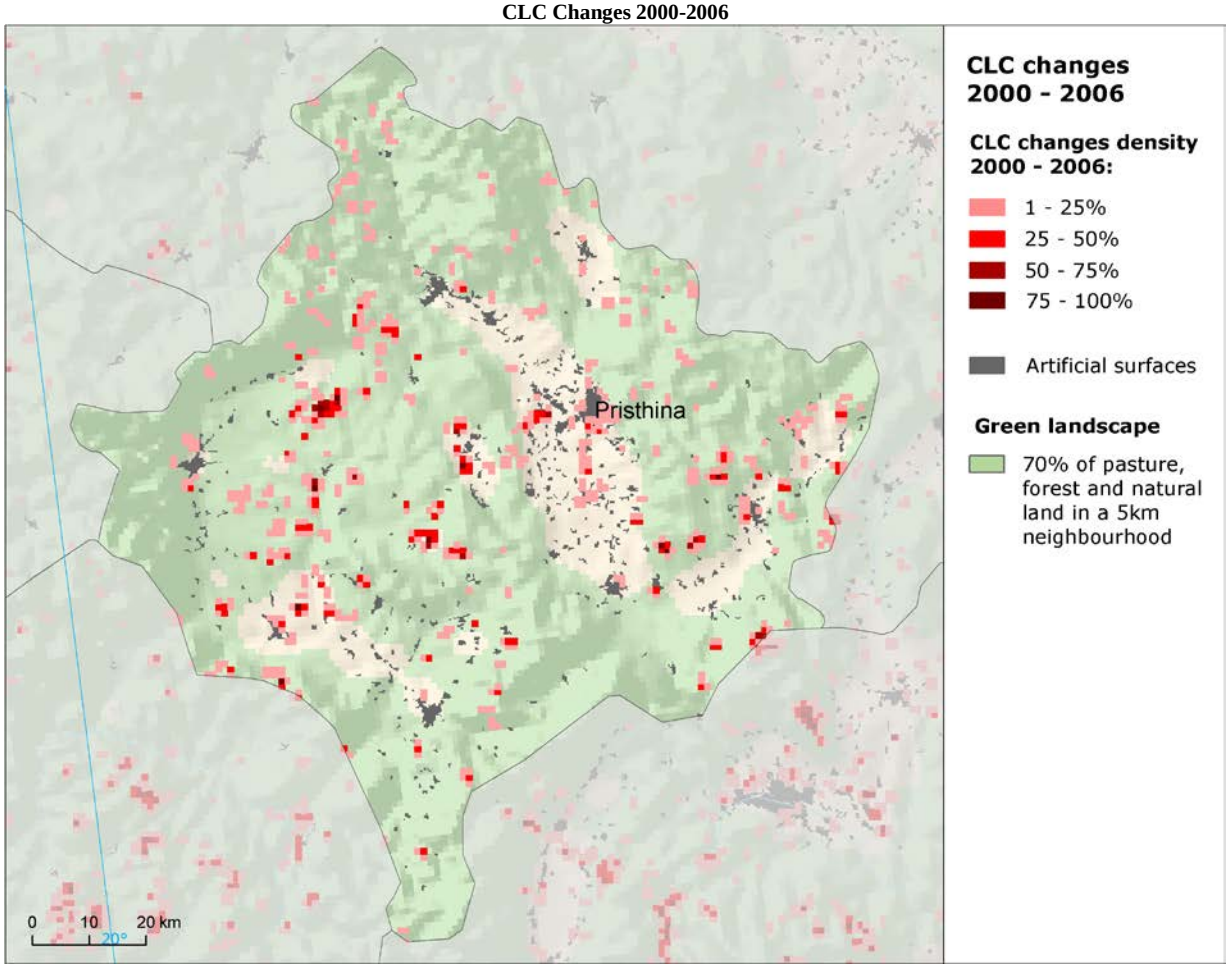


KOSOVO (under UNSCR 1244/99)

CLC Changes 2006-2012

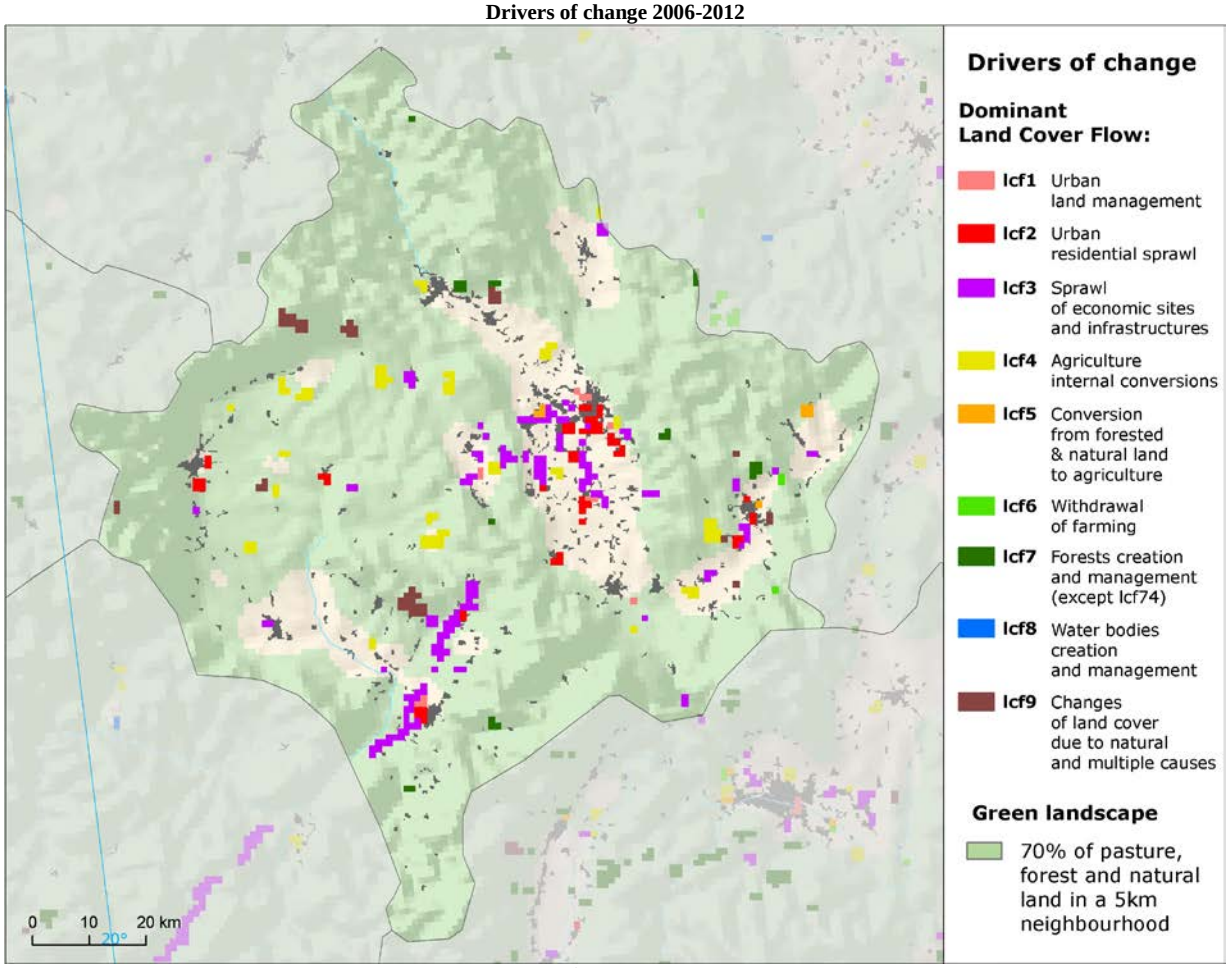


CLC Changes 2000-2006

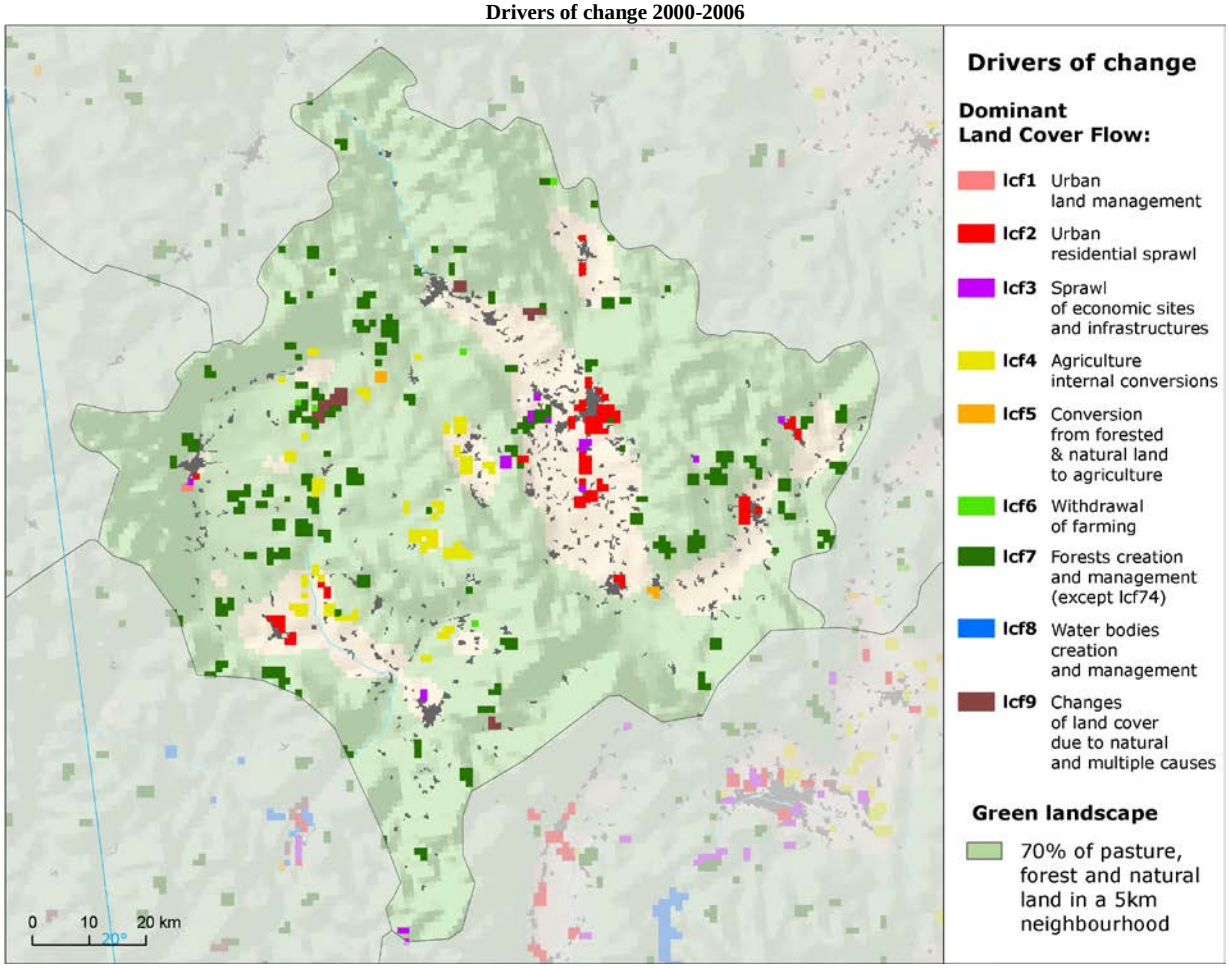


KOSOVO (under UNSCR 1244/99)

Drivers of change 2006-2012

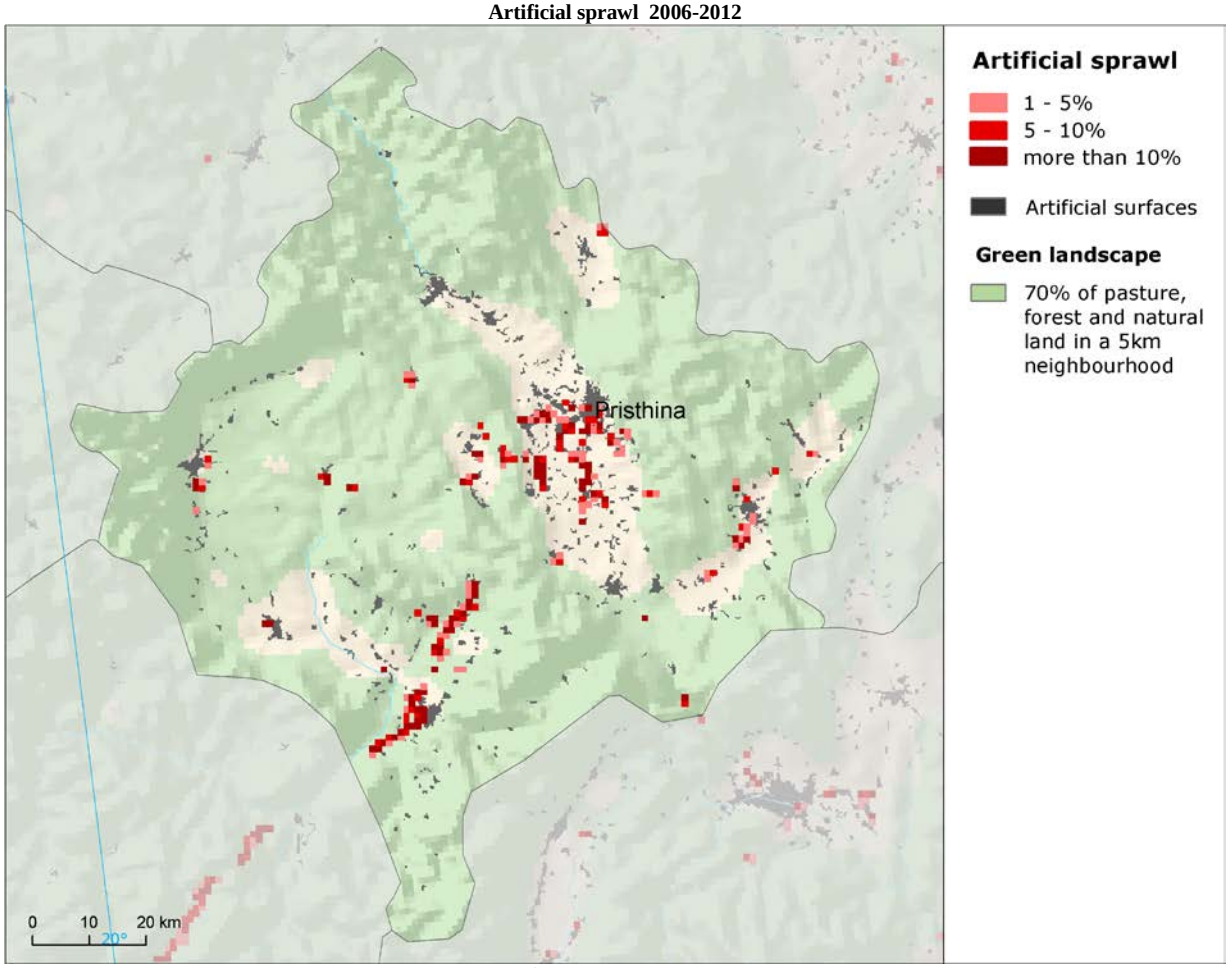


Drivers of change 2000-2006

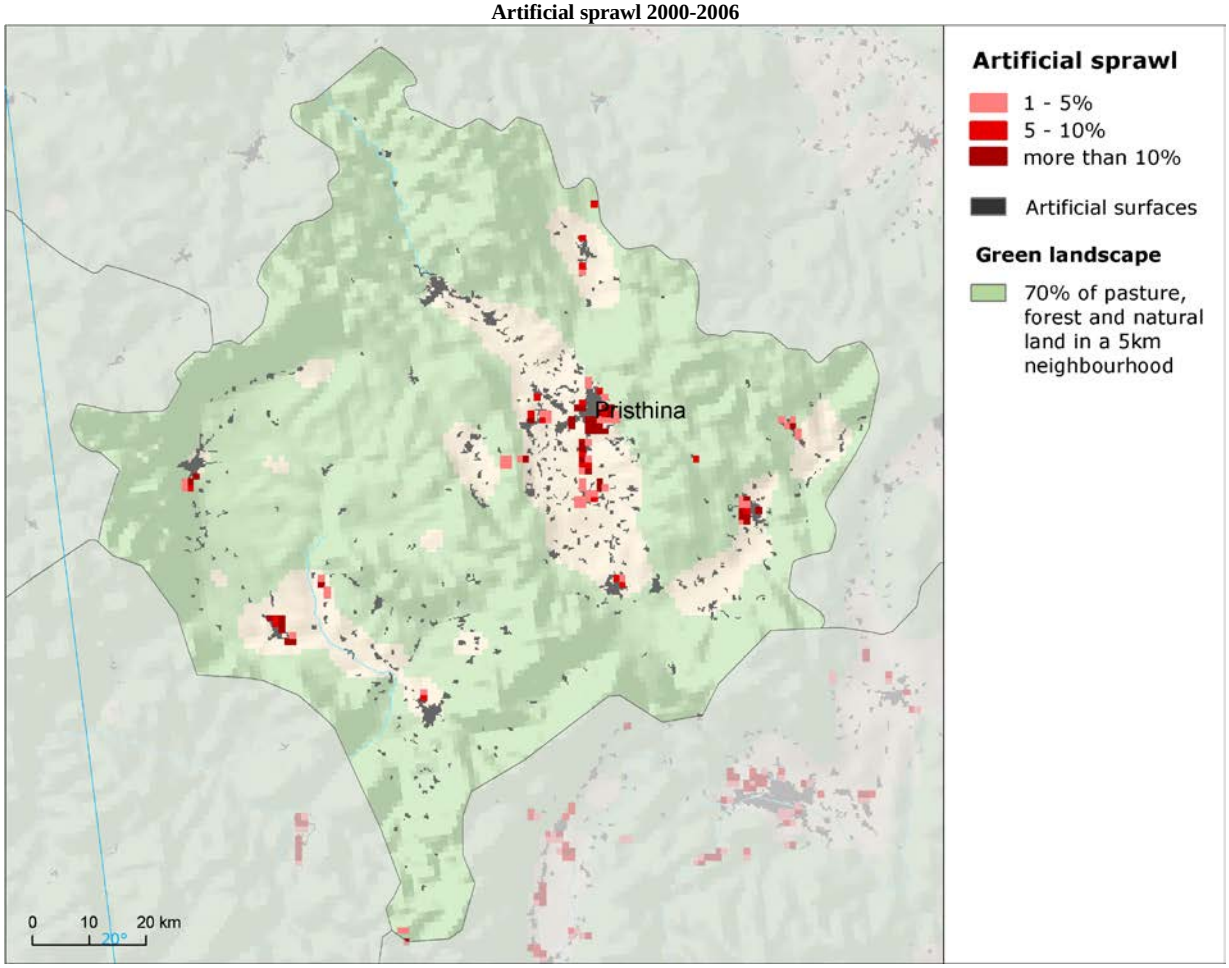


KOSOVO (under UNSCR 1244/99)

Artificial sprawl 2006-2012

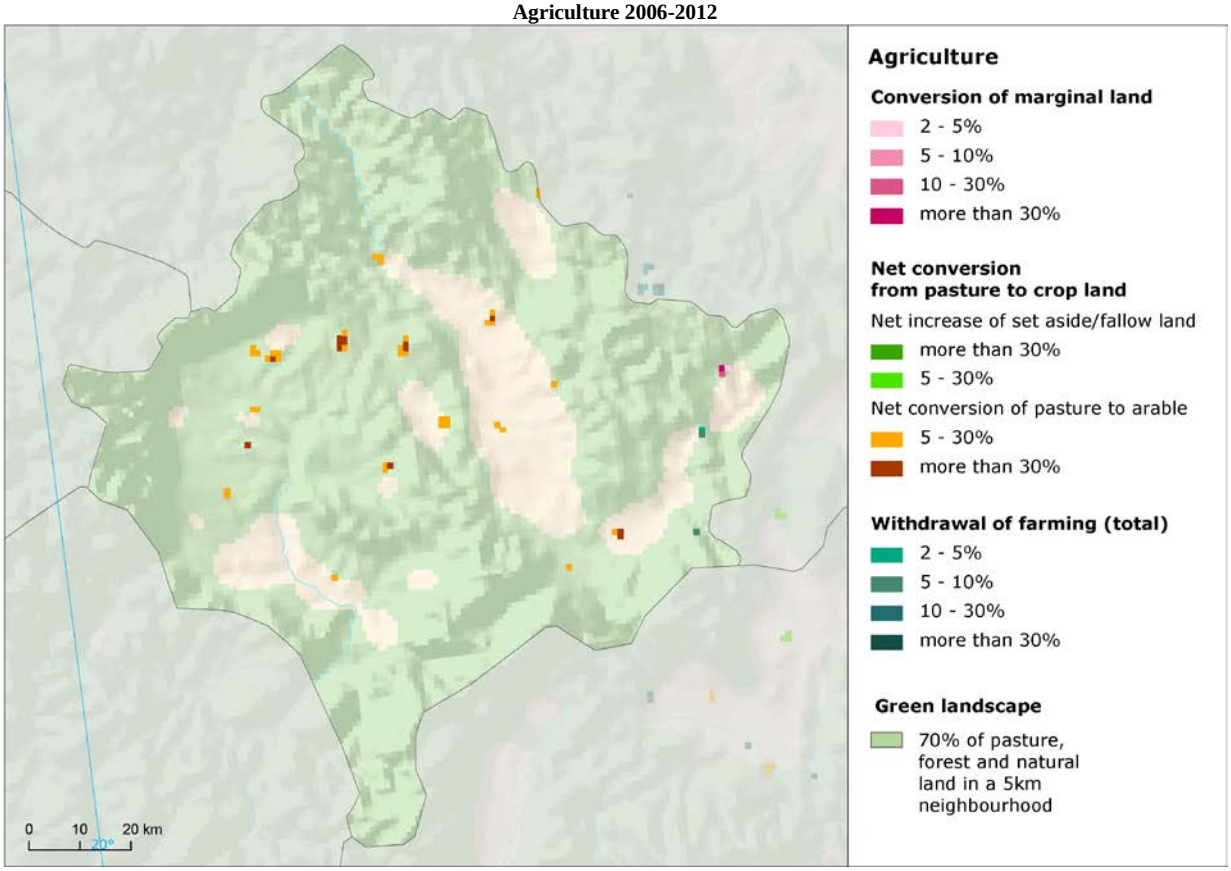


Artificial sprawl 2000-2006

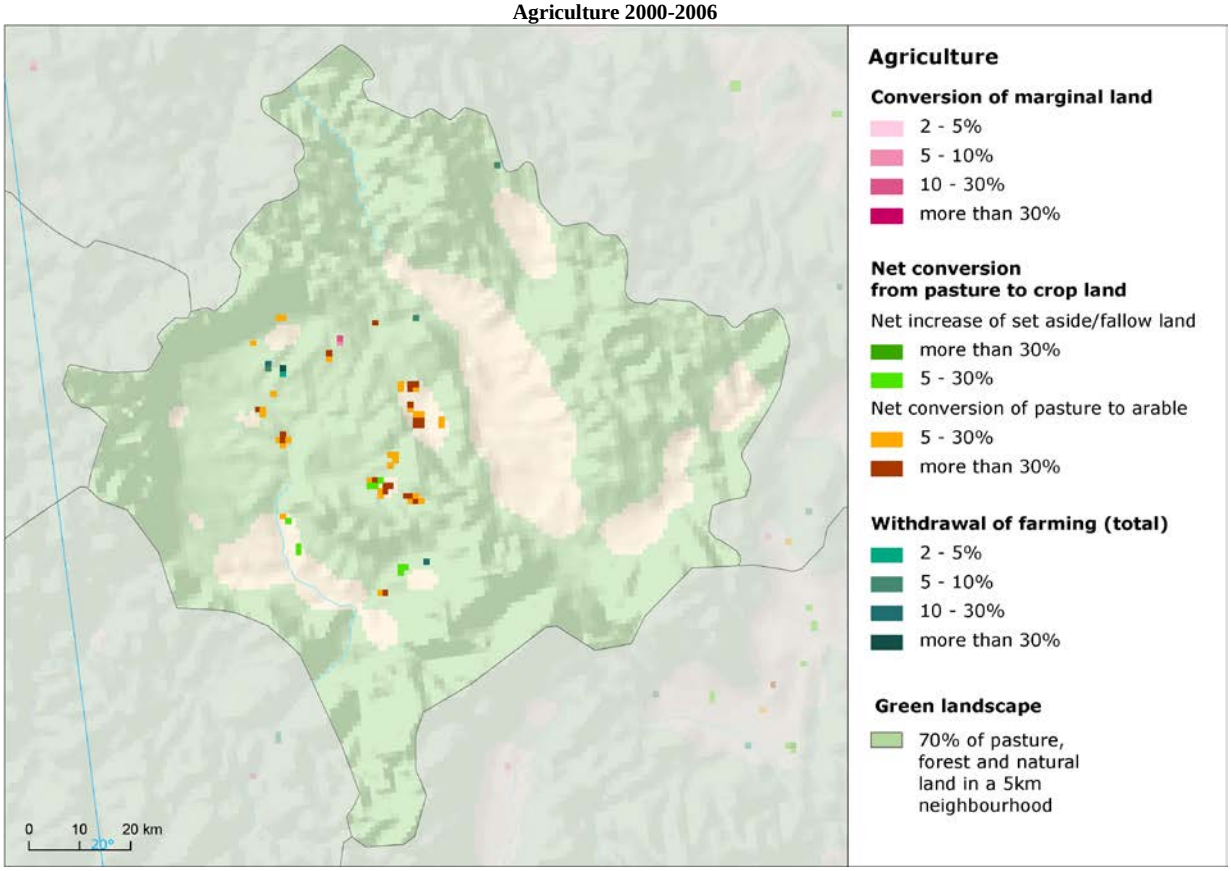


KOSOVO (under UNSCR 1244/99)

Agriculture 2006-2012

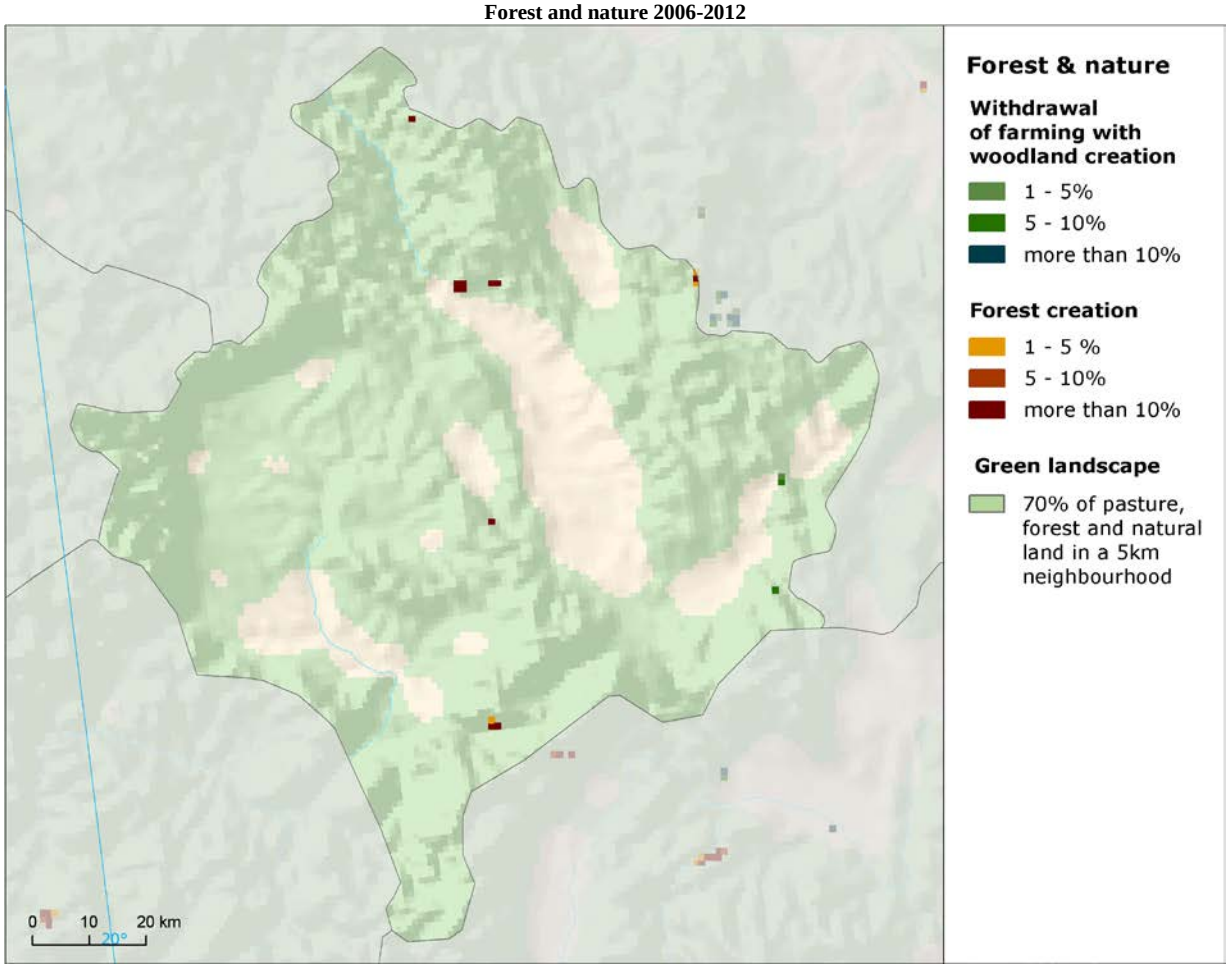


Agriculture 2000-2006



KOSOVO (under UNSCR 1244/99)

Forest and nature 2006-2012



Forest and nature 2000-2006