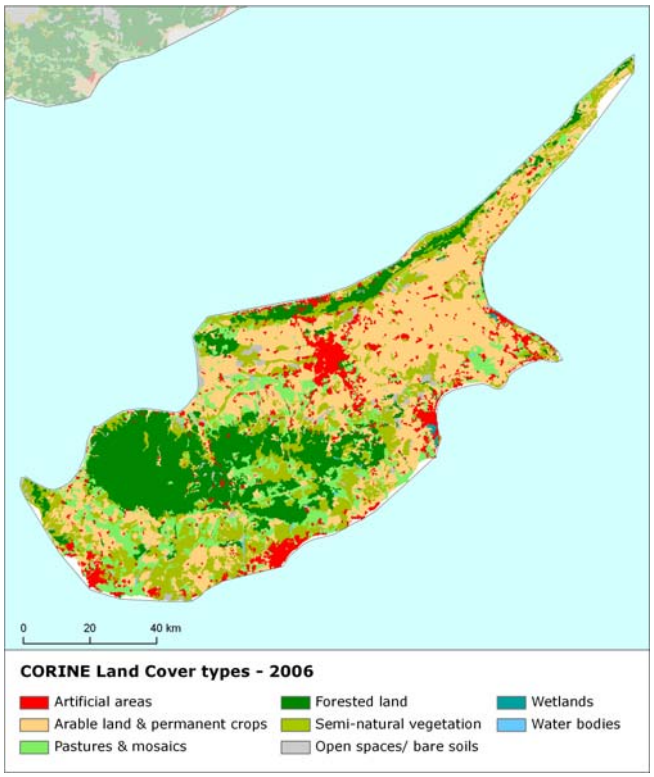
Cyprus

Land cover 2006

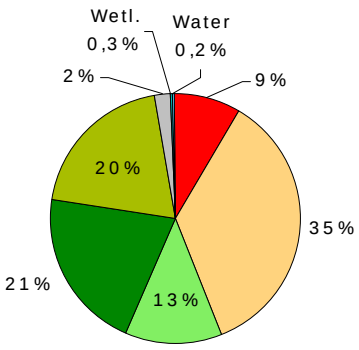
Overview of land cover & change 2000-2006

The change of landscape in Cyprus during 2000-2006 is dominated by formation of artificial areas and forested land and on the other hand consumption of open spaces/bare soils, semi-natural vegetation areas and agricultural land.
The highest change dynamics, characterized by turnover of land cover, are increase in artificial surfaces, followed by open spaces/bare soils and forested land.
The artificial land uptake is formed by urban residential sprawl together with sprawl of economic sites and infrastructures. Forest creation and management is represented mostly by transitional woodland creation over burnt areas. Besides significant conversion from forested and natural land to agriculture occurs too.
Concerning the spatial distribution of change areas, most of artificial land take is located along the coastline and in proximity to the capital city Nicosia. Changes of forested land are concentrated in three areas in the centre of the island.

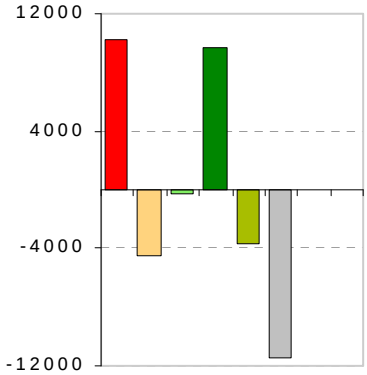


Note: The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over almost two decades 1990-2006 - see Corine land cover (CLC) programme for details.
Number of years between CLC2000-CLC2006 data for Cyprus: 6

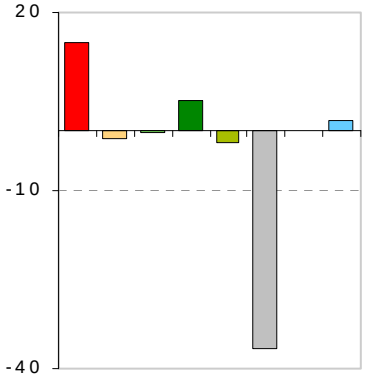
1.1. Land cover 2006 [% of total]



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

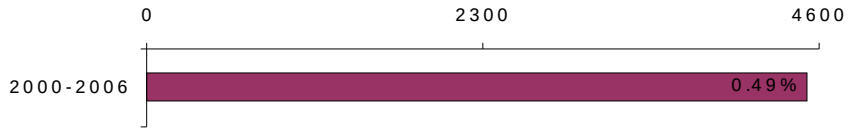
Summary balance table 2000-2006

	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	**689**	**3301**	**1161**	**1845**	**1894**	**315**	**25**	**16**	**9245**
Consumption of initial LC	15	53	44	5	37	118	0	0	271
Formation of new LC	117	8	41	102	0	3	0	0	271
Net Formation of LC	**102**	**-44**	**-3**	**97**	**-37**	**-115**	**0**	**0**	**0**
Net formation as % of initial year	*14.9*	*-1.3*	*-0.2*	*5.2*	*-2.0*	*-36.5*	*0.0*	*1.7*	
Total turnover of LC	**131**	**61**	**86**	**106**	**37**	**120**	**0**	**0**	**542**
Total turnover as % of initial year	*19.1*	*1.8*	*7.4*	*5.8*	*2.0*	*38.2*	*0.0*	*1.7*	*5.9*
Land cover 2006	**791**	**3257**	**1158**	**1941**	**1857**	**200**	**25**	**16**	**9245**

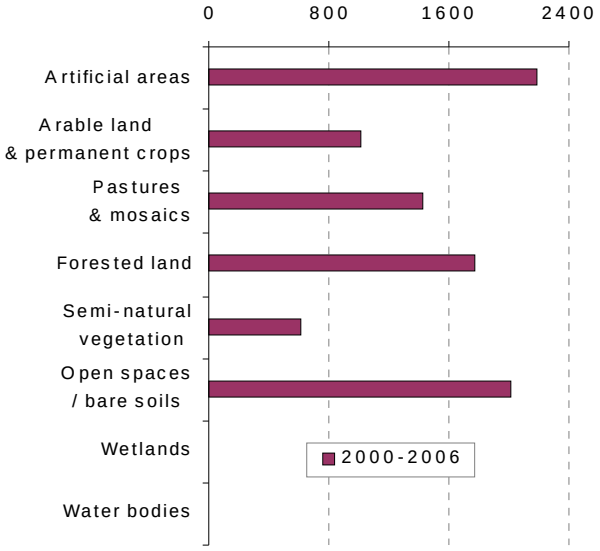
Cyprus

Land cover trends 2000-2006

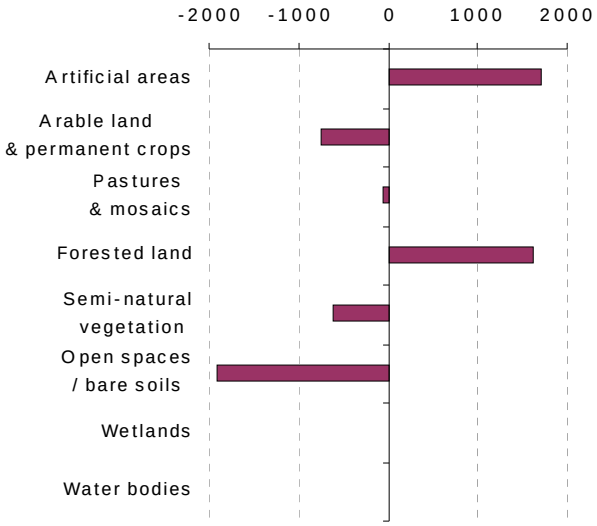
2.4. Annual land cover change [ha/year, % of total area]



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

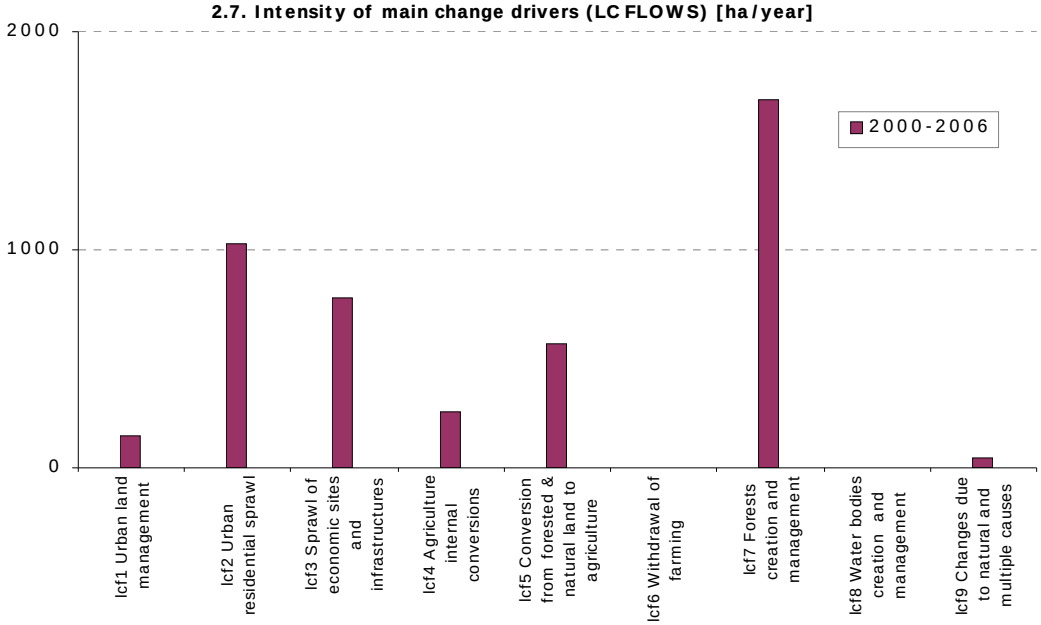


2.6. Net annual change of LC types [ha/year]



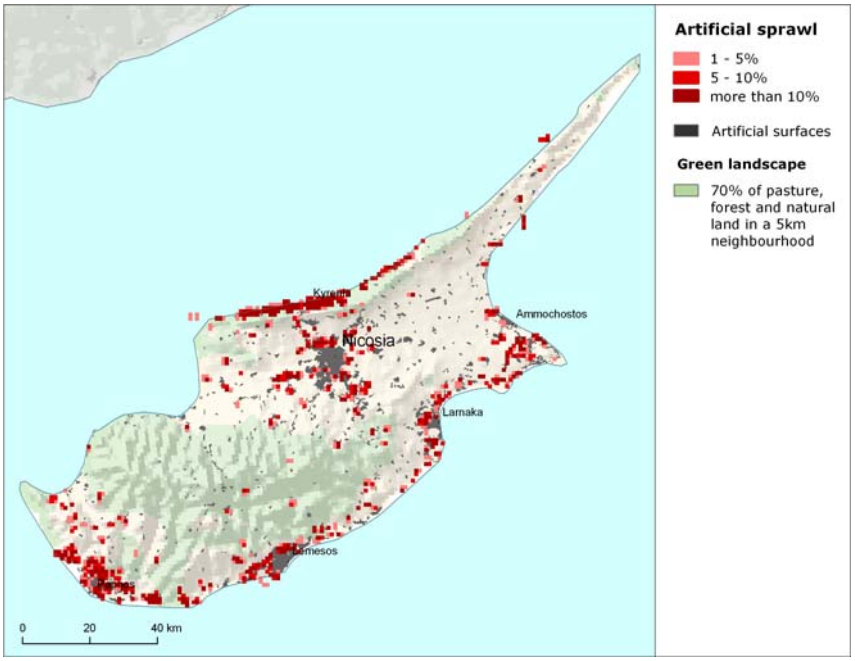
Summary trend figures	2000-2006
Annual land cover change [ha/year]	**4517**
Annual land cover change as % of initial year	**0.49%**
Land uptake by artificial development as mean annual change [ha/year]	1766
Agricultural land uptake by urban and infrastructures development as mean annual change [ha/year]	1297
Net uptake of forests and semi-natural land by agriculture as mean annual change [ha/year]	534
Net conversion from pasture to arable land and permanent crops as mean annual change [ha/year]	-135
Forest & other woodland net formation as mean annual change [ha/year]	1614
Dry semi-natural land cover net formation as mean annual change [ha/year]	-2180
Wetlands & water bodies net formation as mean annual change [ha/year]	5

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

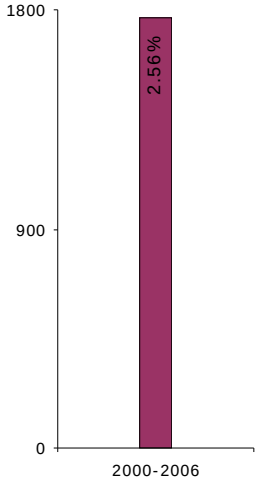


Cyprus

Artificial areas



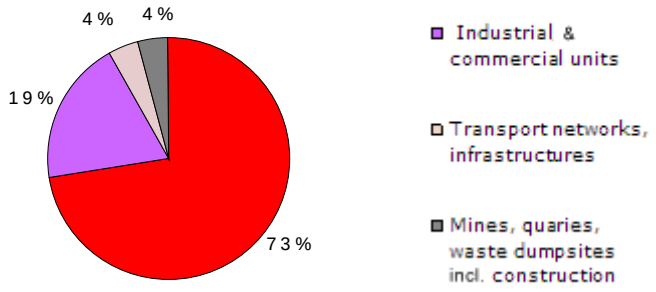
3.8. Artificial land take [ha/year, % of initial year]



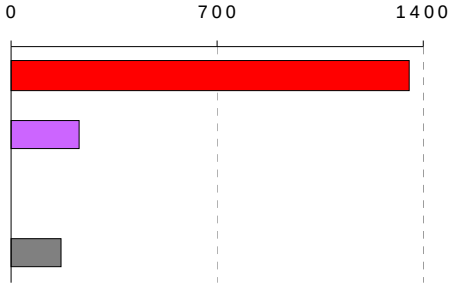
High diffuse residential urban sprawl

Artificial surfaces are the land cover type with the largest formation area in Cyprus during this period. The high artificial land uptake is driven mostly by diffuse residential sprawl (58%), accompanied by sprawl of sport and leisure facilities (19%) and commercial or industrial sprawl (13%). Mostly agricultural land with slightly prevailing share of pastures and mosaics (40%) to arable land and permanent crops (34%), together with semi-natural vegetation areas (23%) has been taken by artificial sprawl. Besides land take, also recycling of developed urban areas (represented by conversion of former construction sites into residential areas, commercial/industrial units or transportation networks) has significant share on total artificial development. On the contrary, small amount of artificial areas, namely mineral extraction sites, have been re-used for agriculture or reforested. Concerning the spatial distribution, most of artificial land take is located along the coastline and in proximity to the capital city Nicosia and other main cities.

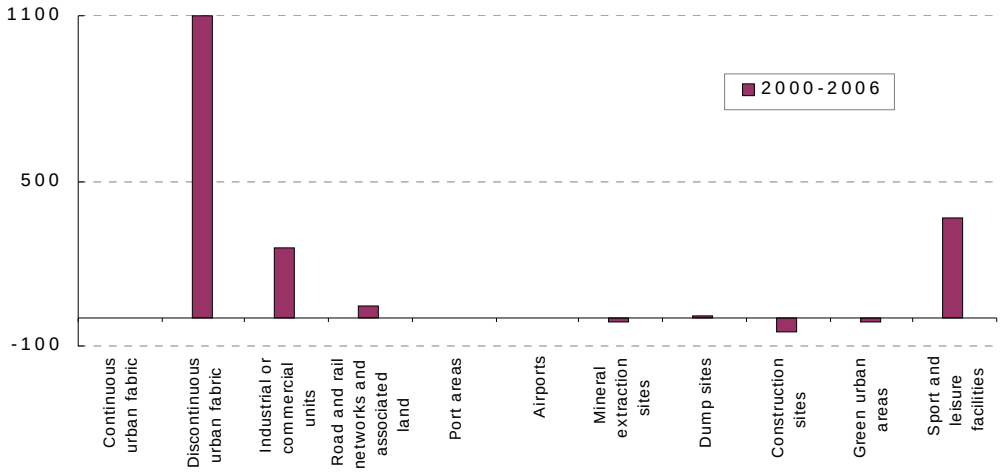
3.9. Artificial surfaces 2006 [% of total area]



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

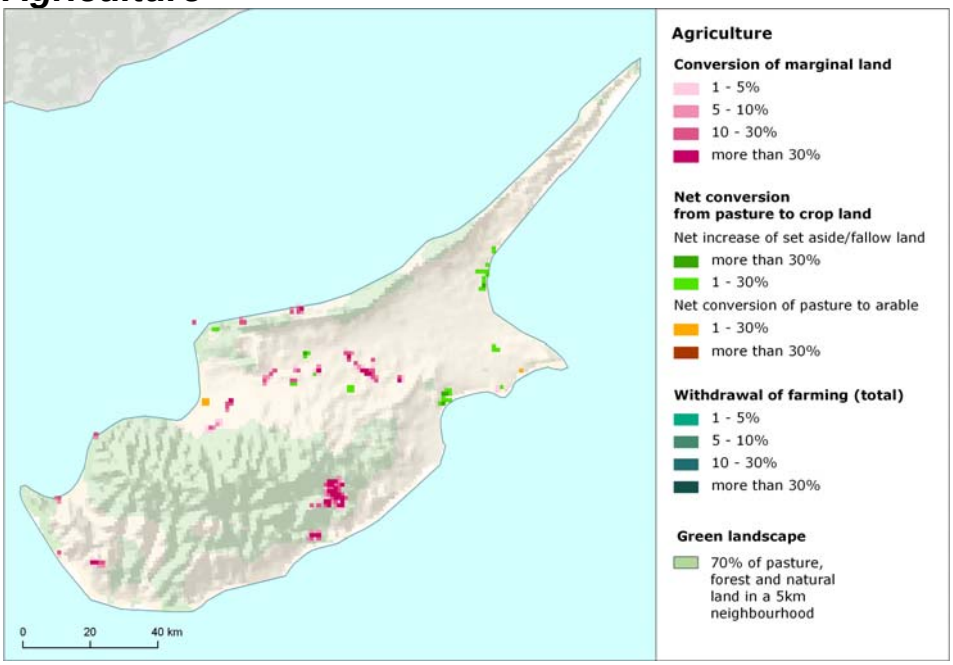


3.11. Mean annual artificial change by class [ha/year]



Cyprus

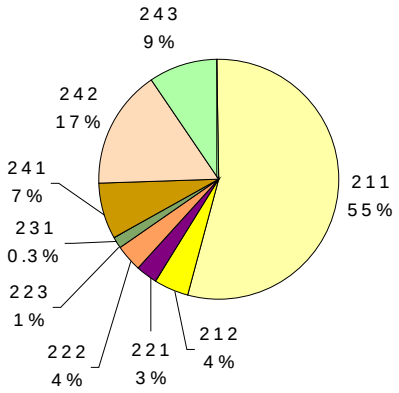
Agriculture



Consumption of agricultural land

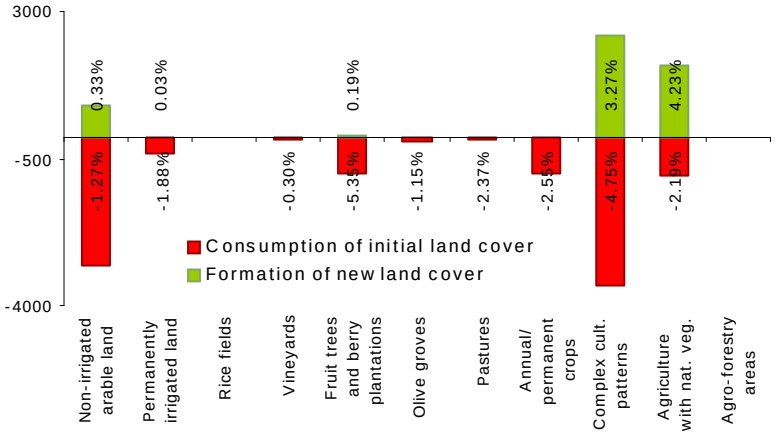
Cyprian agriculture is characterized by dominant share of non-irrigated arable land (more than 55%). The other major agricultural classes are complex cultivation patterns, agriculture with natural vegetation and annual crops associated with permanent crops (see graph 4.12). All agricultural classes, with the only exception of agriculture with natural vegetation, have negative balance of net change during the 2000-2006 period. Fruit trees and berry plantations are the class with highest percentual consumption rate. Complex cultivation patterns have biggest internal dynamics. The most significant consumer of agricultural land is the urban residential sprawl, followed by sprawl of economic sites and infrastructures. In contrast, new agricultural areas have been formed through (mainly diffuse) conversion from semi-natural (marginal) land, represented by natural grassland and sclerophyllous vegetation. In particular, this is mostly (50%) by change of temporally burnt areas to agriculture.
Internal agricultural conversions occur to a lesser extent, compared to external exchange of agricultural land cover. The prevailing internal conversion is diffuse extension of pasture over former arable or crop land, followed by diffuse conversion from permanent crops to arable land.

4.12. Agricultural areas 2006 [% 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

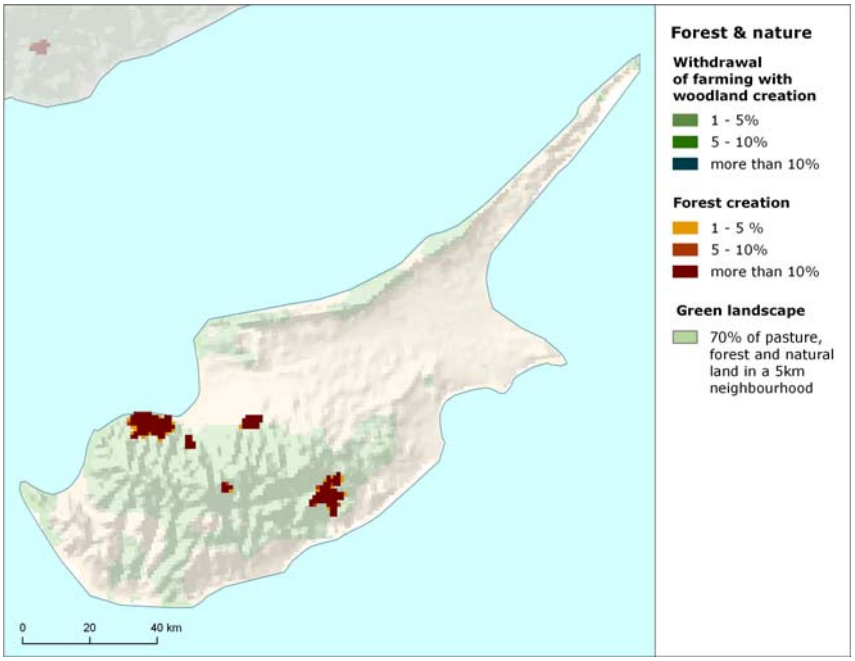
4.13. Development of agricultural areas 2000-2006 – detailed balance [ha]

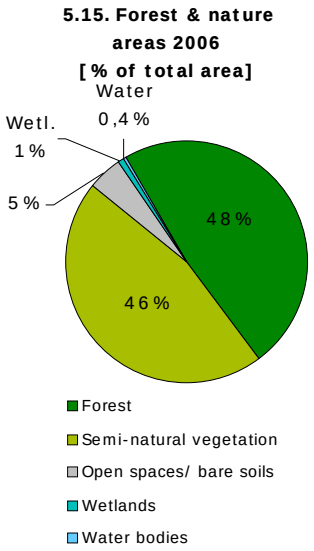


4.14. Mean annual agricultural change by class [ha/year]

Cyprus

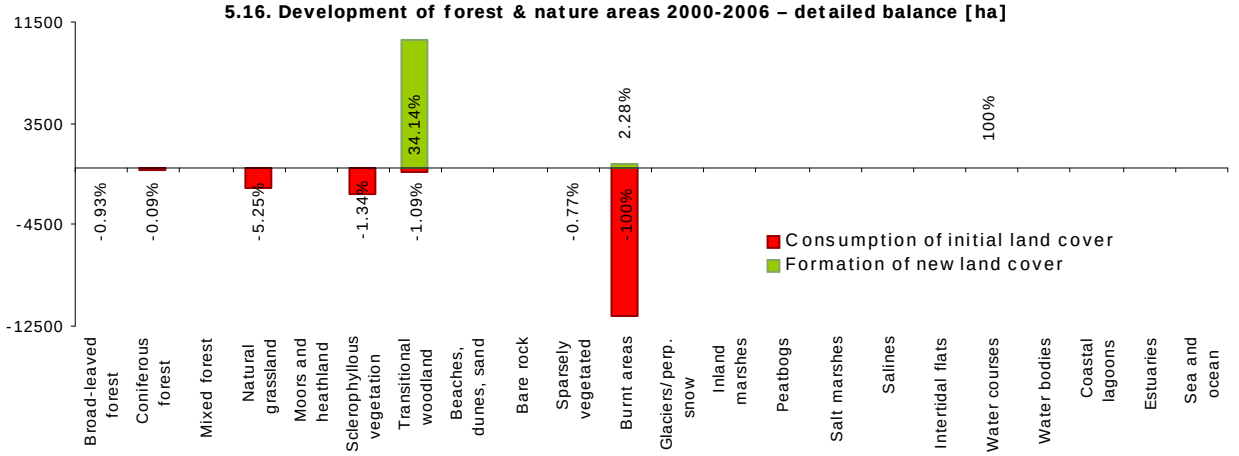
Forest & nature

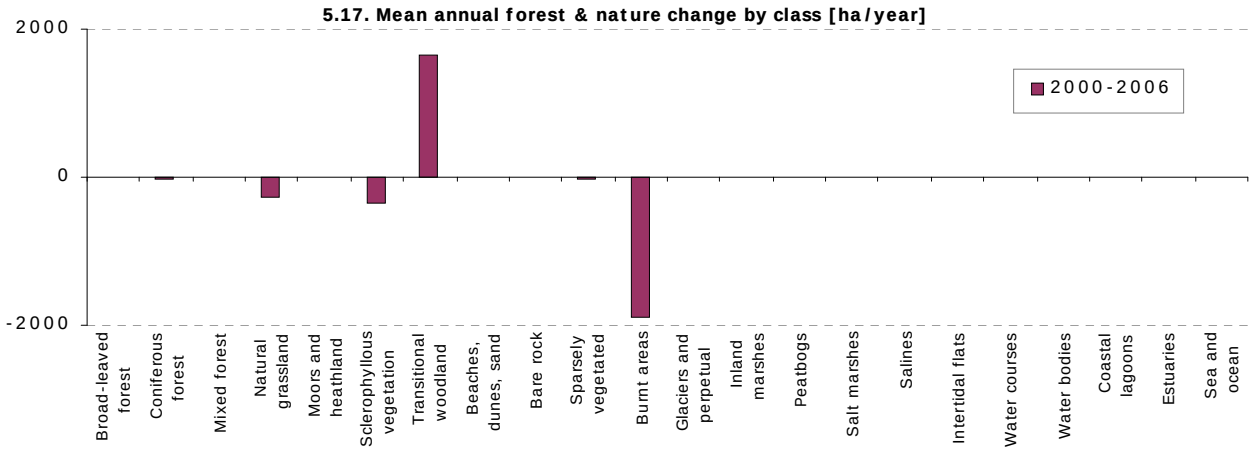




Transitional woodland formation over burnt areas

Cyprian natural landscape has almost equal share of forested land (which consists of coniferous forests and transitional woodland) and semi-natural vegetation areas (with prevailing share of sclerophyllous vegetation and natural grassland). The rest of natural landscape consists of open spaces/bare soils, wetlands and water bodies (see graph 5.15).
The most significant change in natural landscape in Cyprus is the formation of transitional woodland over former burnt areas. Besides, natural surfaces have been consumed by artificial sprawl and by intensive conversion from semi-natural land to agriculture (namely consumption of natural grasslands by non-irrigated arable land).



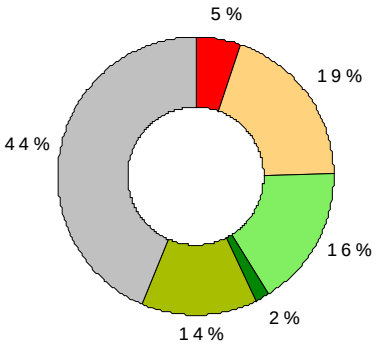


Cyprus

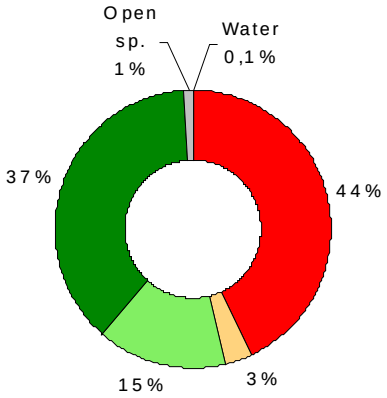
Annex: Land cover flows and trends

Land cover flows 2000-2006

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

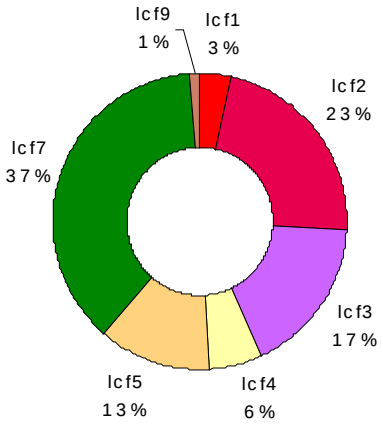


6.19. Formation of land cover 2000-2006 [% of total change area]



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) 2000-2006 [% of total change area]

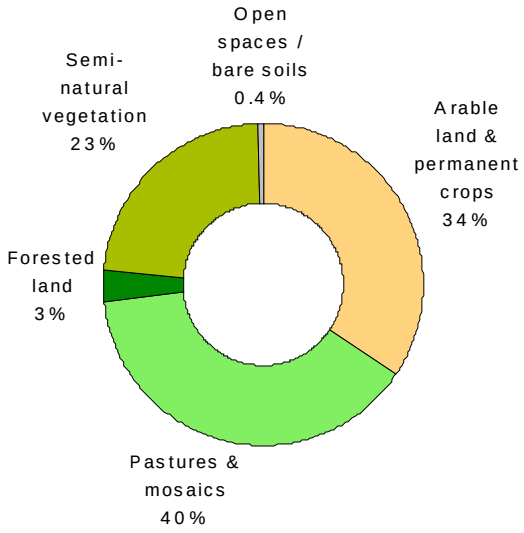


- lcf1 Urban land management
- lcf2 Urban residential sprawl
- lcf3 Sprawl of economic sites and infrastructures
- lcf4 Agriculture internal conversions
- lcf5 Conversion from forested & natural land to agriculture
- lcf6 Withdrawal of farming
- lcf7 Forests creation and management
- lcf8 Water bodies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

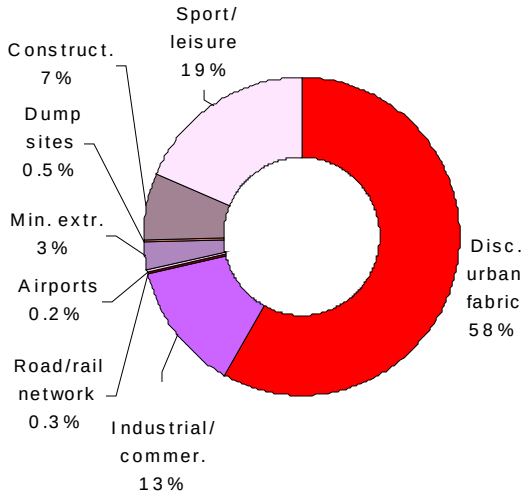
Cyprus

Artificial areas

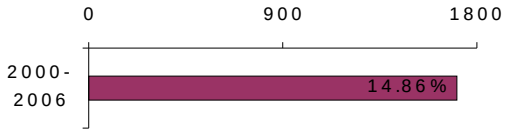
7.21. Consumption by artificial land take 2000-2006 [% of total]



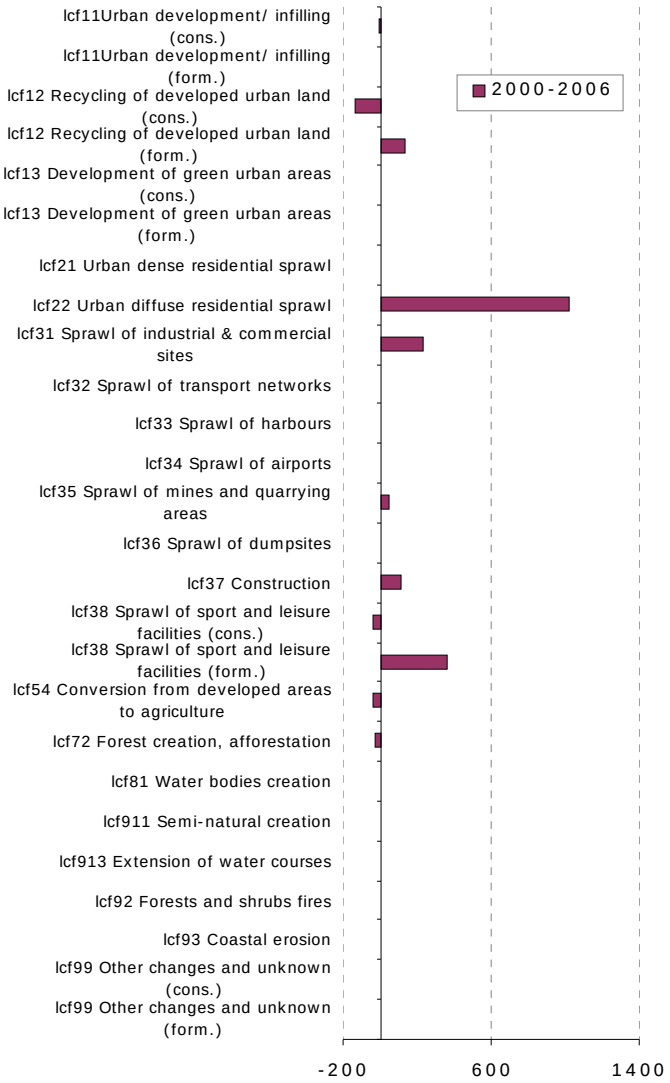
7.22. Formation by artificial land take 2000-2006 [% of total]



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



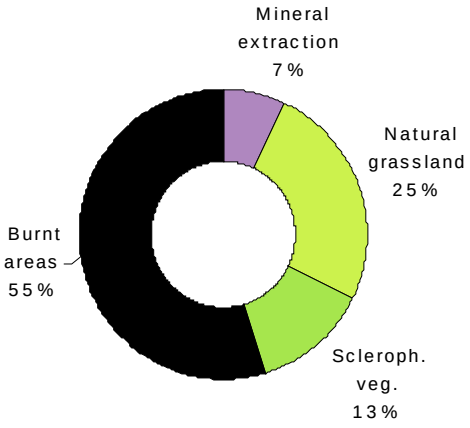
7.24. Artificial development by change drivers (LC FLOWS) [ha/year]



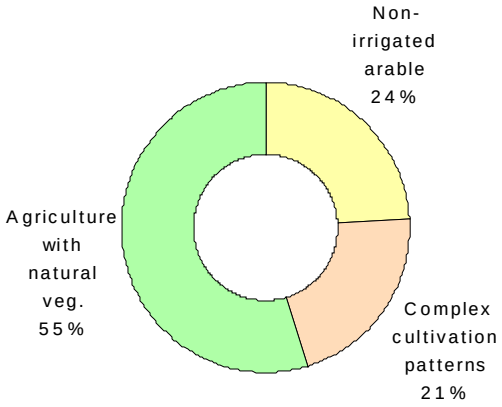
Cyprus

Agriculture

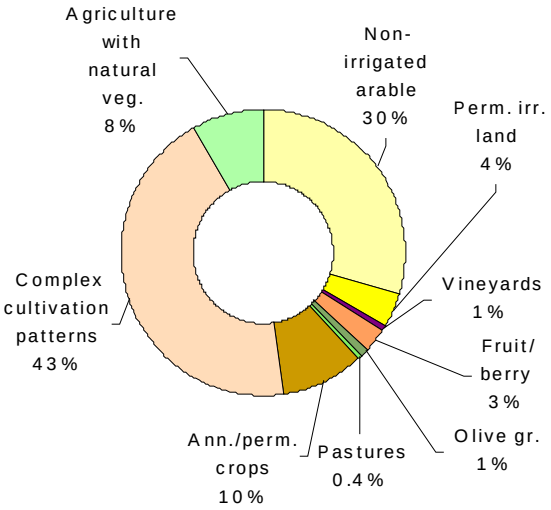
8.25. LC consumed by agriculture 2000-2006 [% of total]



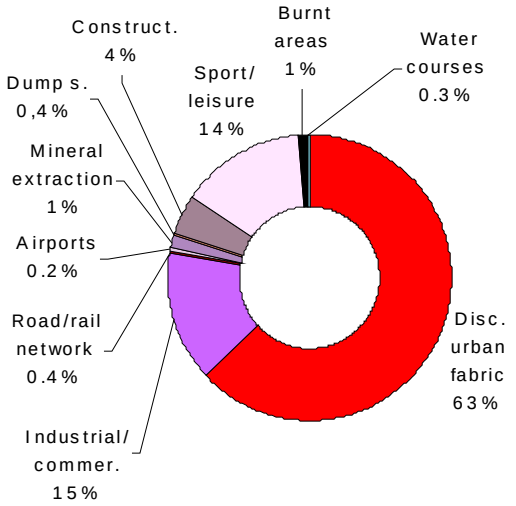
8.26. Formation of agricultural land from non-agriculture 2000-2006 [% of total]



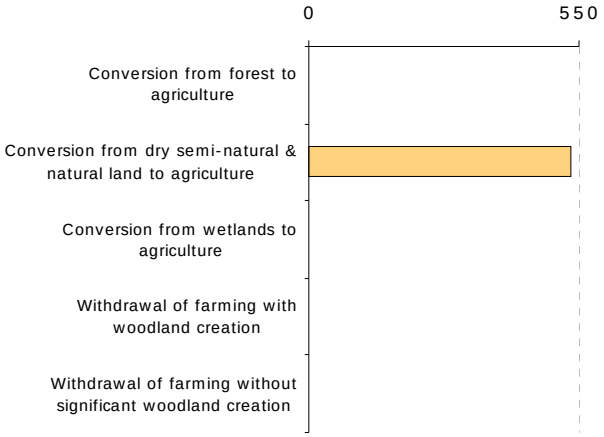
8.27. Consumption of agricultural land by non-agriculture 2000-2006 [% of total]



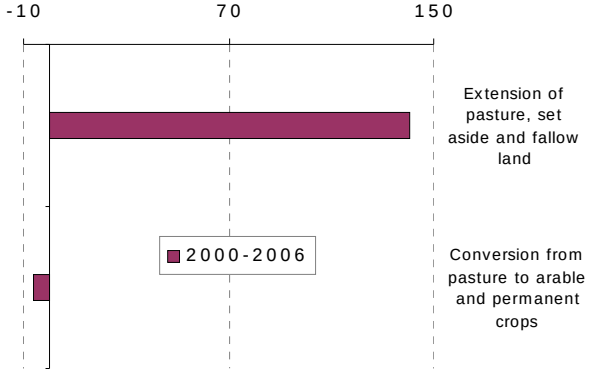
8.28. Formation of non-agricultural land from agriculture 2000-2006 [% of total]



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

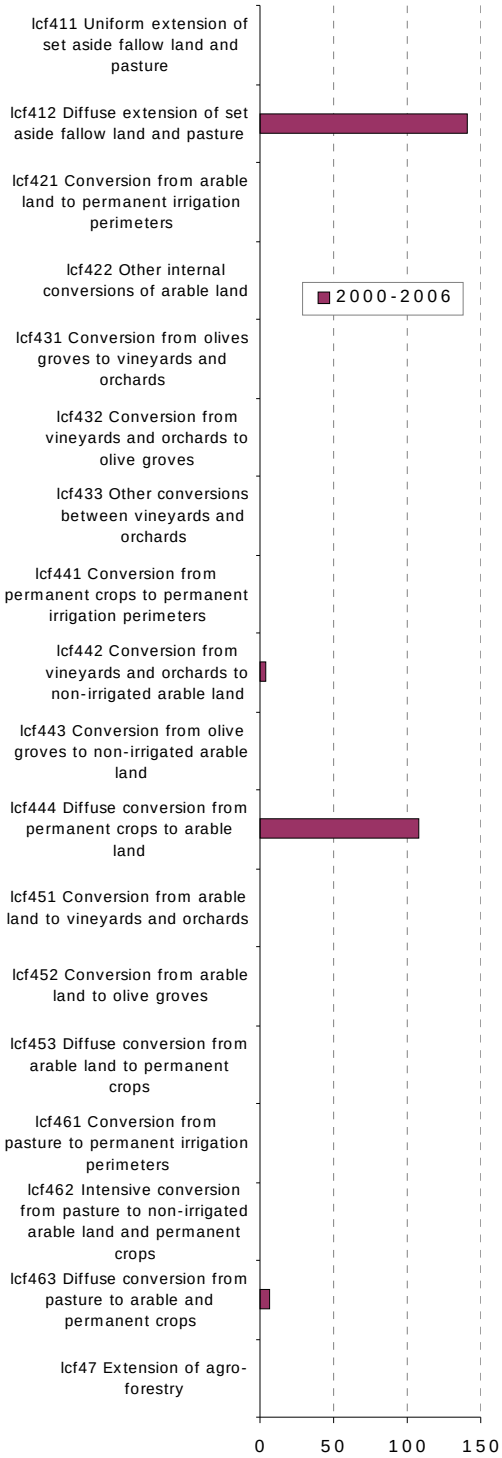


8.30. Mean annual conversion between arable land and pasture [ha/year]

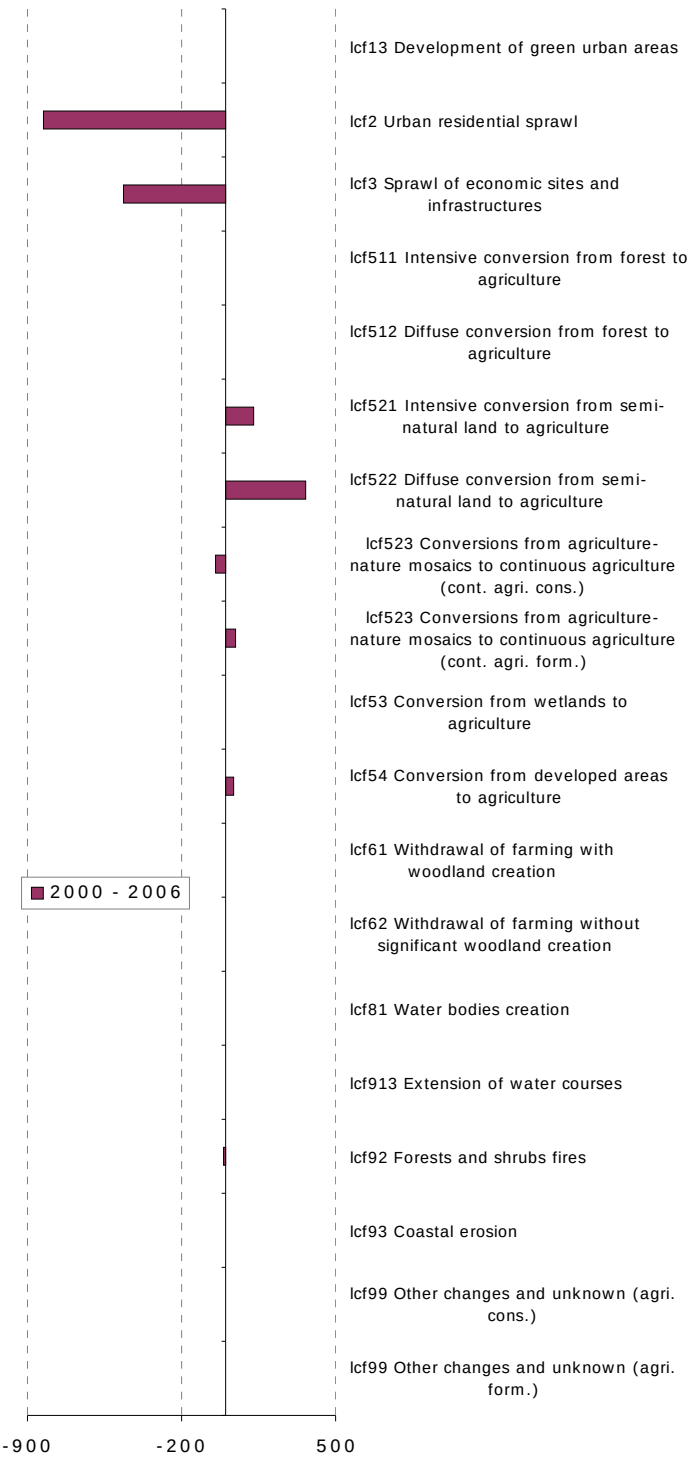


Cyprus

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



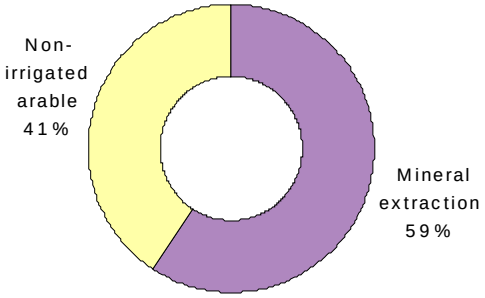
9.32. Mean annual conversions between agriculture and other LC types [ha/year]



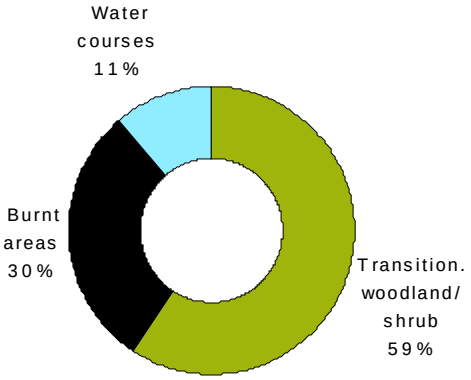
Cyprus

Forest & nature

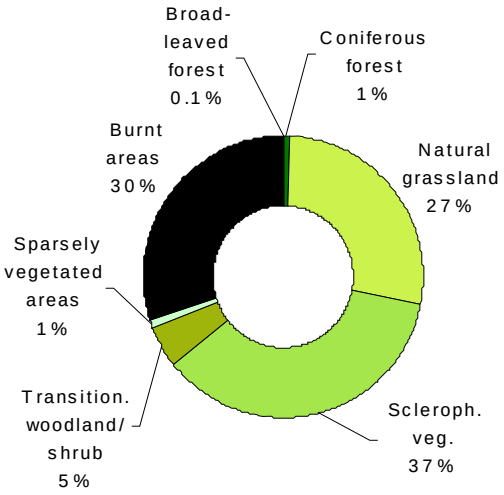
10.33. LC consumed by forest & nature 2000-2006 [% of total]



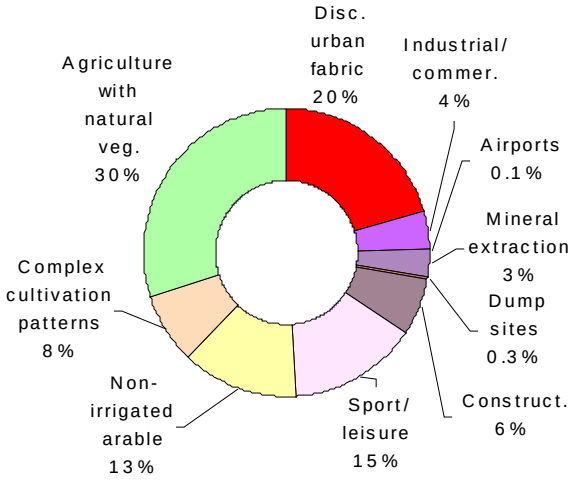
10.34. Formation of forest & nature land from non-forest /nature 2000-2006 [% of total]



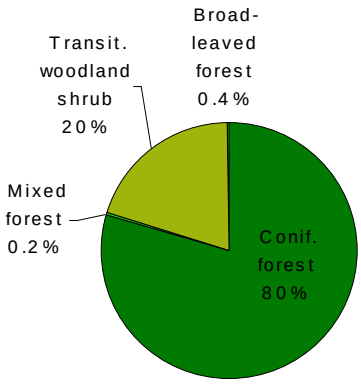
10.35. Consumption of forest & nature land by non-forest /nature 2000-2006 [% of total]



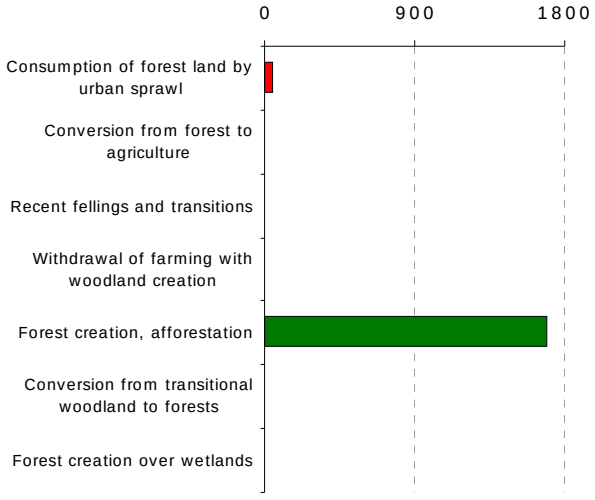
10.36. Formation of non-forest /nature land from forest & nature 2000-2006 [% of total]



10.37. Forested land 2006 [% of total area]

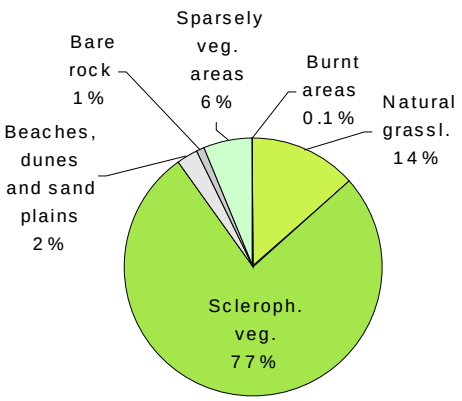


10.38. Main trends in woodland & forests consumption/formation 2000-2006 [ha/year]

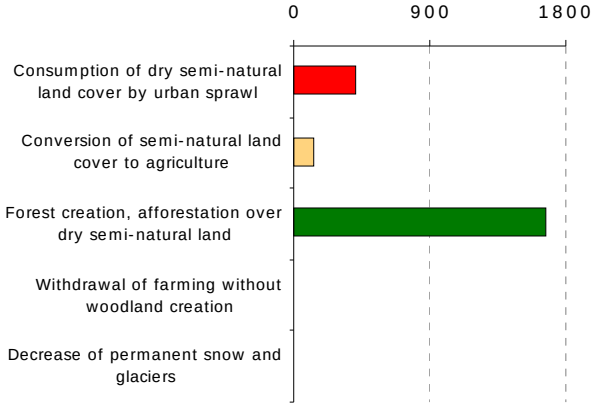


Cyprus

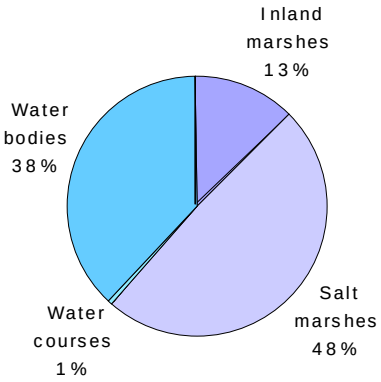
11.39. Dry semi-natural areas 2006 [% of total area]



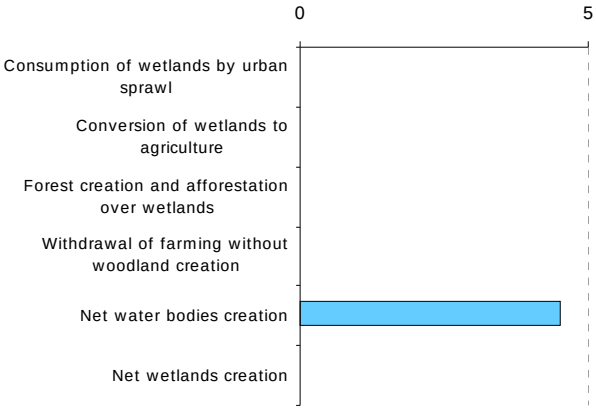
11.40. Main trends in dry semi-natural land consumption/formation 2000-2006 [ha/year]



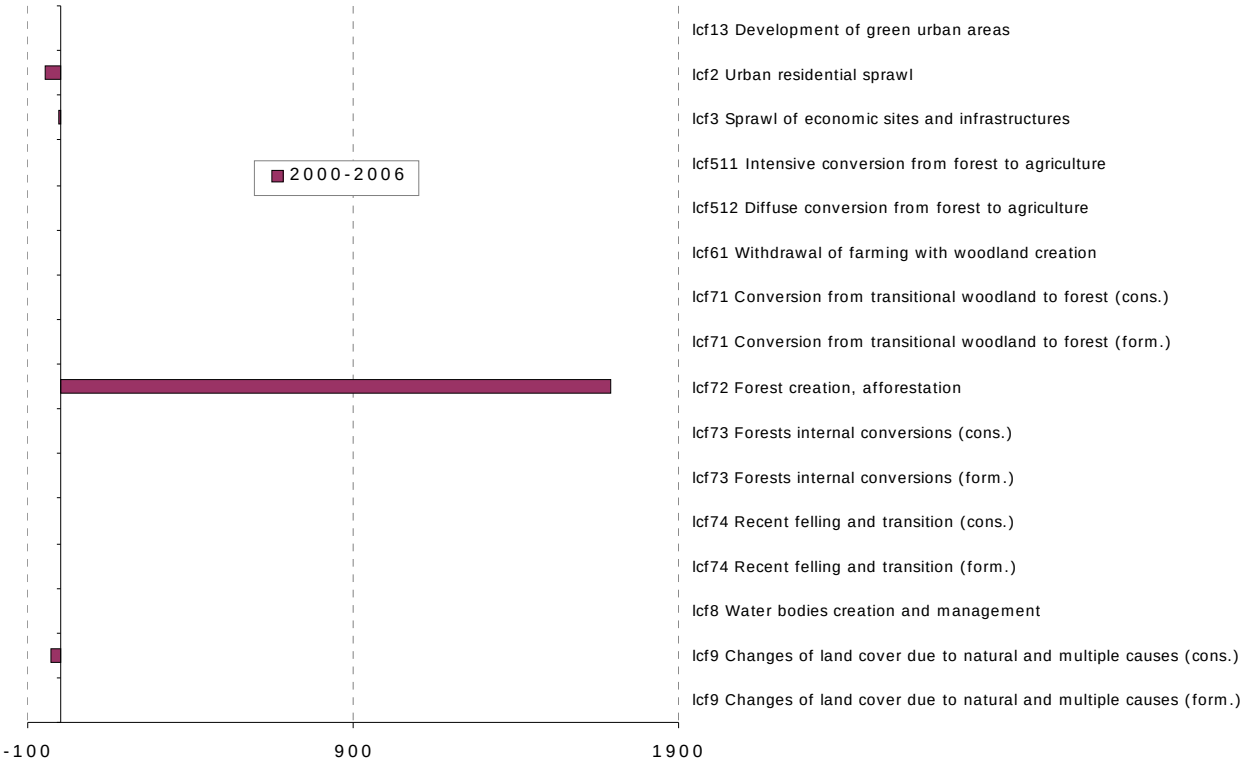
11.41. Wetlands & water 2006 [% of total area]



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



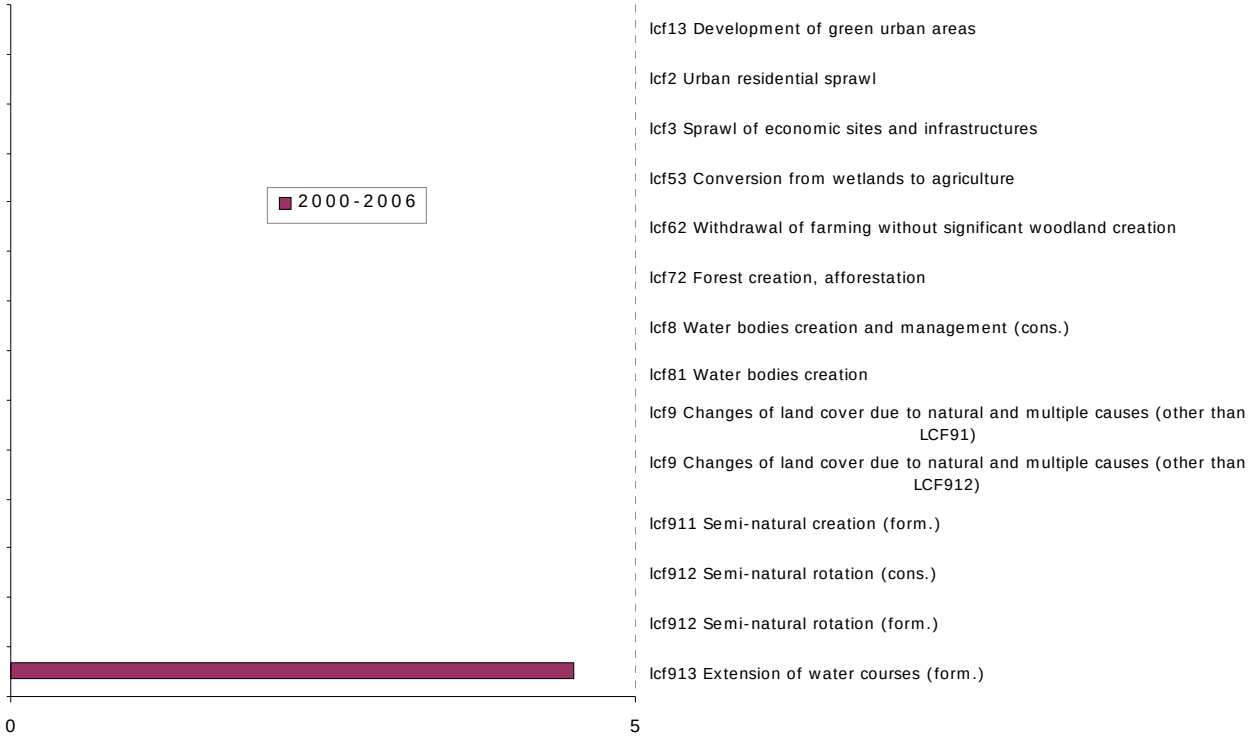
11.43. Mean annual conversions of forest & other woodland [ha/year]



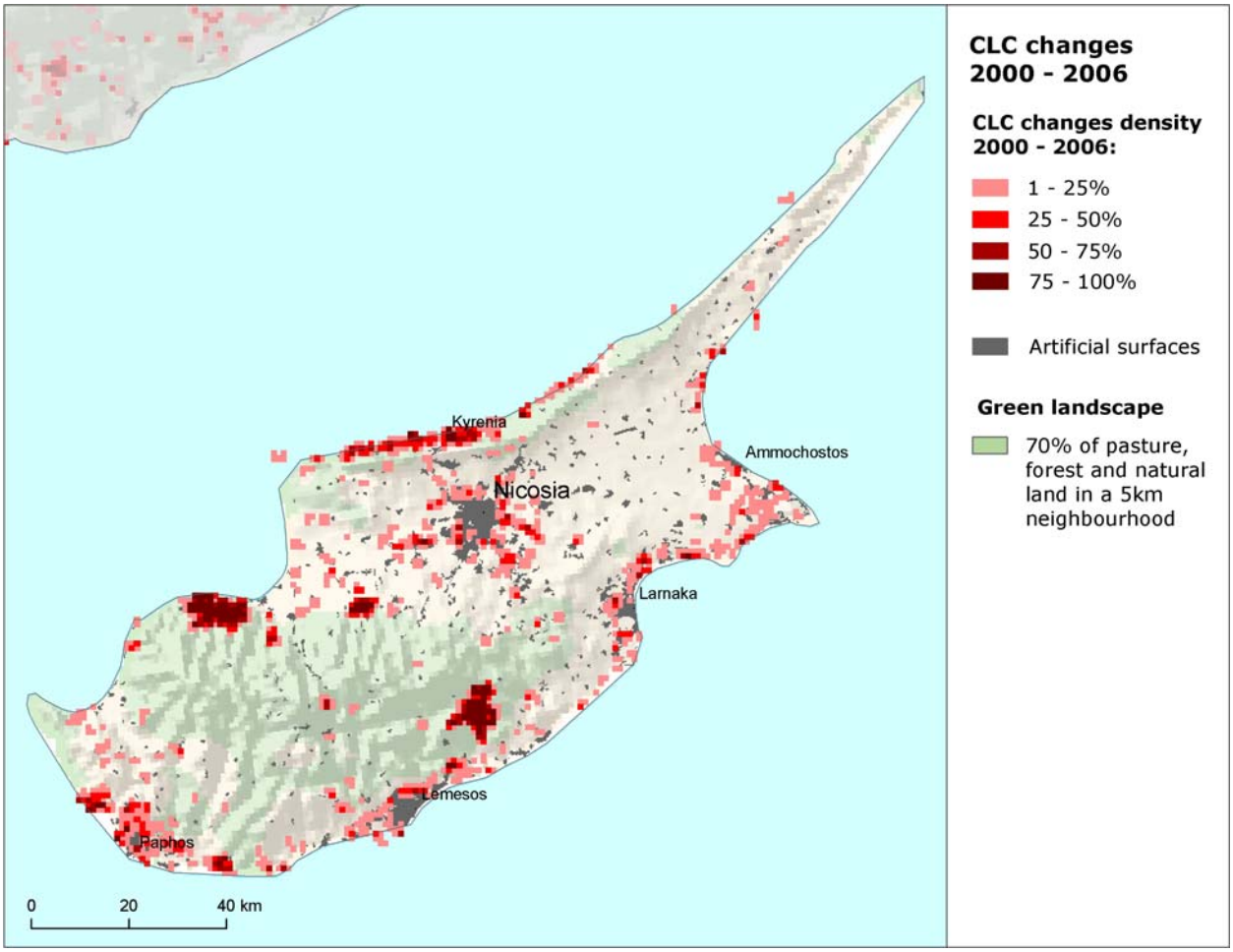
Cyprus

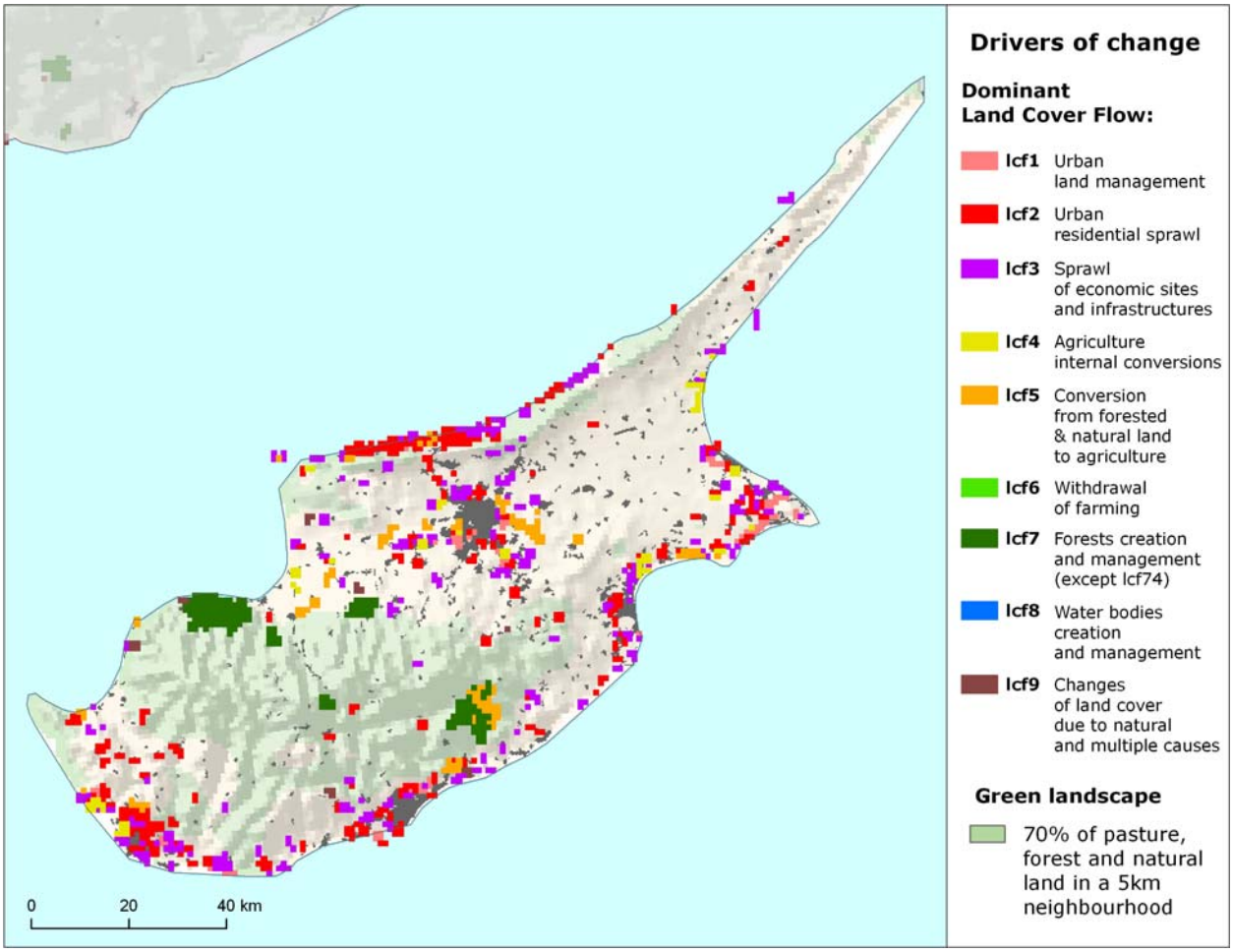
12.44. Mean annual conversions of dry semi-natural LC [ha/year]

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



Cyprus


Kyrenia
Ammochostos
Nicosia
Larnaka
Lemesos
Raphos
0
20
40 km
CLC changes 2000 - 2006
CLC changes density 2000 - 2006:
1 - 25%
25 - 50%
50 - 75%
75 - 100%
Artificial surfaces
Green landscape
70% of pasture, forest and natural land in a 5km neighbourhood


0
20
40 km
Drivers of change
Dominant Land Cover Flow:
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 (except lcf74)
lcf8 Water bodies creation and management
lcf9 Changes of land cover due to natural and multiple causes
Green landscape
70% of pasture, forest and natural land in a 5km neighbourhood