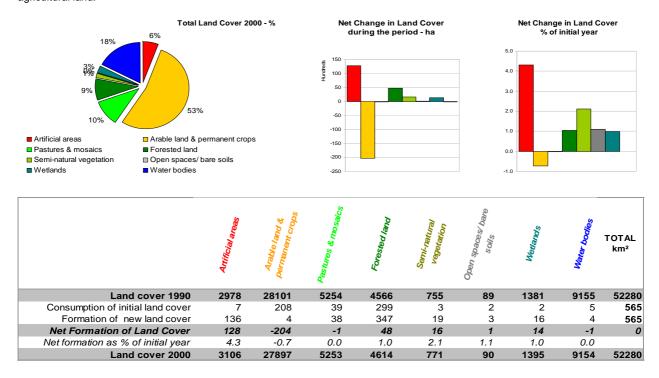




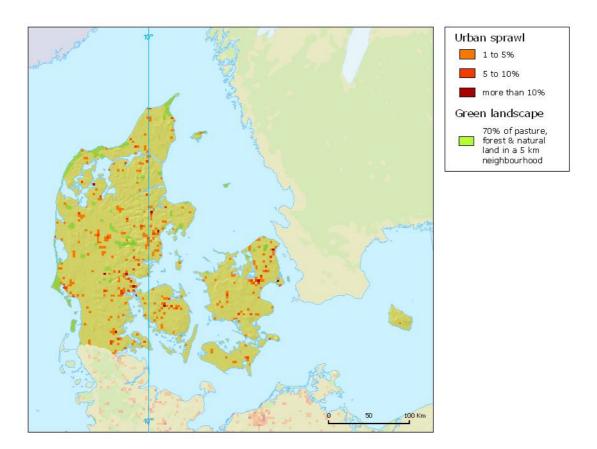
Note The results presented here are based on a change analysis of 44 land cover types mapped consistently on a 1:100.000 scale across Europe over the decade 1990-2000 - see Corine land cover programme for details. The principle of the mapping inventory is one of a consistent generalisation for both static and change data to provide a coherent geographical continuum across Europe. By definition, a generalisation may generate some accuracy deficiencies inherent to the methodology. These restrictions are acknowledged and have been documented in working papers available from EEA.

## Overview of land cover & change 1990-2000

The period between 1990 and 2000 in Denmark can be characterised by urbanisation of the areas surrounding of big cities or industrial areas, and by afforestation driven by government policy. Both urbanisation and afforestation occurred at the expense of agricultural land.



### Urban



### Urban sprawl in commuting zones around major cities

The high costs of housing in Copenhagen and in other main cities of Denmark forced people to move to smaller cities in the neighbourhood or to towns and villages with good connections to the transport network.

On the peninsula of Jutland industrial sites have been created or developed in eastern regions, creating a need for new housing space nearby to accommodate those working in these sites.

The second contribution to urban sprawl during the analysed period can be attributed to the creation of summer houses in close proximity to the coast.

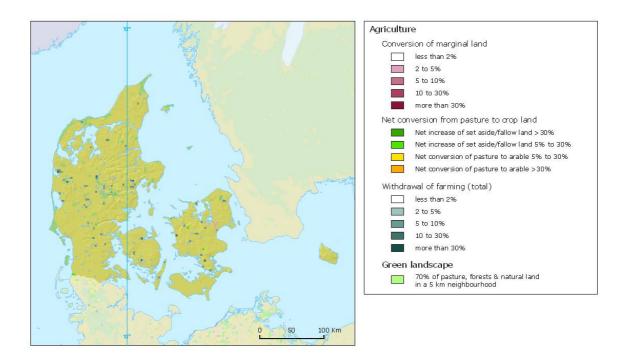
Most of the developments occurred at the expense of agricultural area.



Drivers of urban land development - ha/year

Origin of urban land uptake, as % of total uptake

### **Agriculture**

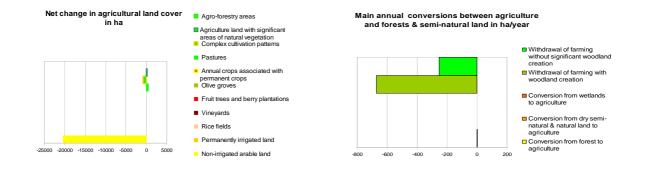


### Conversion of agricultural land to forest

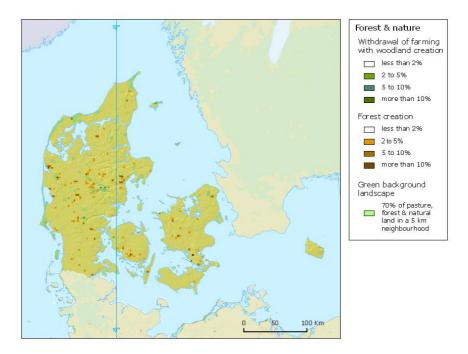
Regarding agricultural cover, there was a reduction of about 1 % in arable area, but there were no other major changes. However, the total land used for agricultural purposes decreased. Agri-environment schemes were made available following the CAP reform of 1992. Consistent with the Danish government's strong policy towards afforestation, some agri-environment measures encourage conversion of agricultural land to forestry or the designation of set-aside land (for 5 or 20 years).

A second driver of change in agricultural cover was conversion of arable land to urban areas. Also notable is a change in nature protection policy towards reclaiming land previously converted from nature to agriculture (e.g. nature restoration with remeandering of rivers).

The new agri-environmental measures brought other changes in the landscape which are not detectable using this type of analysis. These include the planting of hedgerows and change from traditional farming to organic farming.



#### Forest & nature

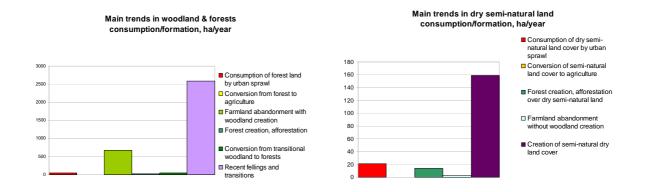


#### Afforestation supported by government policy

During the period 1990-2000, the Danish Ministry of Environment had strong support for its landscape change plans. Therefore, during this time many new forested areas were created. The major reason for forest creation was protection of groundwater aquifers from agricultural pollution. As Denmark does not have any major rivers most of its water supplies comes from groundwater aquifers which are shallow and prone to pollution. The Danish ministry also took recreation and amenity value into account in considering the location of new forested areas, and hence many of the new forested zones are quite close to cities and towns. The second reason for afforestation was replanting of trees that were destroyed during the 1999 storm. The afforestation of agricultural land was financially supported by the government.

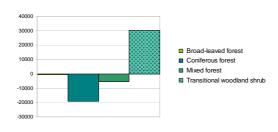
Additional contributor to increase in tree cover is Christmas trees plantations, which are seen as a forest area, though it is a type of agricultural land, which later can be reclaimed by agriculture.

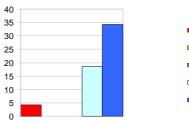
The second major project carried out during this time was the recreation of natural zones, such as restoration of streams to their more natural meandering form, increasing the total water body area. In addition, the amount of drainage has been decreased in recent years to allow the recreation of wetland areas.



Net formation of forest and transitional woodland, in ha

# Main trends in wetalnds & water bodies consumption/formation, ha/year





Consumption of wetlands by urban sprawl
Conversion of wetlands to agriculture
Forest creation and afforestation over wetlands
Farmland abandonment without woodland creation
Net Water bodies creation