

Data from the CORINE database for the years 2000, 2006 and 2012 were used to analyze the land cover and land cover change in the Federation of BiH. The minimum mapping unit or polygon is 25 ha, and map scale 1:100.000. The CORINE nomenclature coverage categories are grouped in six categories, in accordance with IPCC categories. Changes in land cover (>5 ha) were identified for the periods 2000-2006 and 2006-2012, and are analyzed below in order to show the characteristics of actual changes.

For the purpose of analyzing the land cover change in the Federation of BiH during the period 2000-2012, a change matrix (mapped changes >5 ha) was used; it shows what really happened with a particular land cover category, i.e. what is the area that came out of this category during the observed period and what is the area that entered that category at the same time. In the period 2000-2006, such changes were identified at 871 locations, i.e. polygons, on a total area of 33,976 ha. The pressure on the land cover was considerably lower in the period 2006-2012, so that changes are visible on a total area of 10,991 ha (271 polygons). Evident are three types of change: decrease (croplands converted into artificial areas), increase (transition of forest into the group category of shrubs, grassland and sparsely vegetated areas) and transition from one category to another within the same collective category (e.g. meadows into arable land).

Data show that the collective category of Artificial areas was increased by 6,401 ha in the period 2000-2012. Croplands was decreased by 6,347 ha, mainly on account of the increase in Artificial areas. There is also a noticeable change of category within this collective category suggesting the intensification of agricultural activities in some areas of the Federation of BiH which was recorded on an area of 3,857 ha. Forest areas were reduced by 17,962 ha. Approximately 85% of the total decrease is related to deforestation, while about 12% of decrease in forest land was caused by wild fires. Forest was also increased by 10,898 ha. This is mainly due to the gradual transition of agricultural land, pastures and abandoned areas resulting from the displacement of the population due to war activities and general abandonment of rural areas, into the succession of forest vegetation and ultimately into the forests. In the collective category of Shrubs, grasslands and sparsely vegetated areas, there was an evident decrease of 13,000 ha as a result of the transition of natural meadows and pastures into the built-up areas as well as the transition of the succession into the forest areas. The increase in the area of this collective category (Shrubs, grasslands and sparsely vegetated areas) was caused by the increase of neglected agricultural land and the felling of forests. The collective category of Bare land and other areas (e.g. burnt areas) increased by 2,947 ha and in this case it happened on account of fire affected areas, be it forest, agricultural or grassland areas. The collective category of Wetland and water bodies was increased by 136 ha due to the change of river courses. On the other hand, the reduction of these areas was caused by their use for agricultural purposes.

When it comes to changes by cantons, the Artificial areas were most increased in the Tuzla canton (1,548 ha), the Sarajevo canton (1,453 ha) and the Herzegovina-Neretva canton (904 ha). Within this collective category, the category of Discontinuous urban fabric areas recorded the highest increase, while in the area of Tuzla canton there was an evident increase in the areas of mineral exploitation, since Tuzla region is the main mining center. In proportion to this increase, Croplands have reduced as the Artificial areas mainly expand at the expense of agricultural land. A similar situation has been noted in other cantons, only to a lesser extent. Forest land areas were most reduced in Canton 10 due to felling and fire (5,013 ha), Herzegovina-Neretva canton mainly due

to fire (2,466 ha), and Central Bosnia canton due to felling (1,820 ha). Forest areas in the Una-Sana Canton increased considerably, by 3,211 ha, on account of the transition of the forest succession areas into the forests, which, on the other hand, compensated for the cleared areas in the said period. Collective category of Shrubs, grassland and sparsely vegetated areas was most increased in the Canton 10 and Central Bosnia Canton due to felling of forests and neglected agricultural land. This collective category was significantly reduced in the area of Una-Sana Canton due to the transition of the forest succession area into the forest area.