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The Relationship between population distribution and agricultural land use in Republic of Srpska

During the long intercensus period from 1991 to 2013, Bosnia and Herzegovina recorded a decrease in population, primarily as a result of the war events, and later due to insufficient birth rates, negative natural increase, ageing and emigration. During this period, the population of the Republic of Srpska decreased by 25%, with five cities/municipalities showing an increase in population, among which are the cities of Bijeljina and East Sarajevo. Bosnia and Herzegovina has been without a population census for 12 years, which greatly complicates demographic research. According to estimates by the Republic of Srpska Institute of Statistics, in 2023, a population decline was recorded in Republic of Srpska. While urban centers continued to show population increases, such as Banjaluka, East Sarajevo, Laktasi, and Trebinje, the overall trend was negative. It should be emphasized that official estimates are based on the closed population model, meaning that external migration is not included. These cities have experienced a negative natural increase over an extended period, but a positive migration balance due to internal migration. However, emigration abroad is significant, although there is no official data available on this phenomenon. As the population in urban areas increases, there is a growing demand for space, leading to the expansion of settlements, often at the expense of agricultural land. An analysis of CORINE Land Cover for Republic of Srpska between 2000 and 2018 showed a reduction in agricultural land. In 2018, compared to 2000, approximately 10% less agricultural land was recorded. Agricultural land is most

frequently replaced by artificial surfaces. The goal of this research is to determine whether there is a connection between the spatial distribution of the population and changes in agricultural land, specifically whether areas experiencing population growth also face a reduction in agricultural land. For land cover change analysis, the CORINE database for the years 2000 (European Environment Agency, 2019) and 2018 (European Environment Agency, 2019) was used. The CORINE Land Cover project provides the fundamental map of the European environment landscape and serves as a basis for ecological analysis and assessments of the impact of development on the environment. Other methods used in the research include geographical analysis and synthesis, statistical processing of population data, comparison, and cartographic methods.

Keywords: population, agricultural land, Republic of Srpska