

Geospatial analysis of agricultural land in Nikšić from 1990 to 2018

Miroslav DODEROVIC¹, Ivan MIJANOVIC^{1*}

¹ University of Montenegro, Faculty of Philosophy, Geography, dodemir@t-com.me (M.D.)

* Correspondence: urngiss@gmail.com (I.M.)

The area of Nikšić municipality covers the western part of Montenegro, and is characterized by several relief forms that differ in geological, geomorphological, climatological, hydrological and pedological characteristics, different anthropogenic influences, and therefore land cover. This paper aims to analyze the changes of agricultural land in the territory of Nikšić municipality from 1990 to 2018. The data from the CORINE Land Cover (CLC) database were used to create this paper. The changes were analyzed for five consecutive versions of the CORINE Land Cover (CLC) database and by applying GIS. The analysis also included the determination of the percentage share of agricultural land in the total area and its changes in the indicated period.

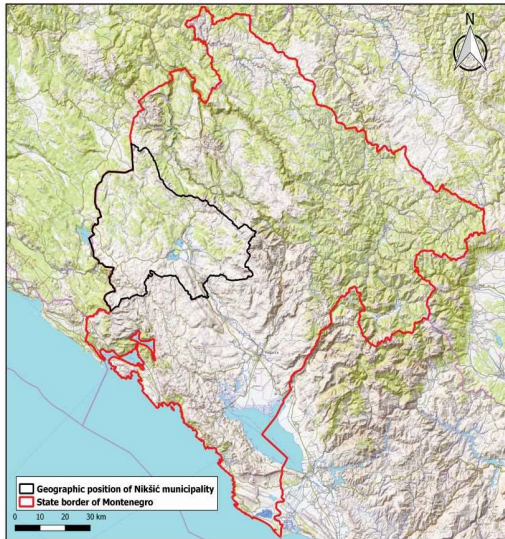


Figure 1: Geographical position of the municipality of Nikšić

CORINE code	Land use types	1990	2000	2006	2012	2018
		in km ²	in km ²	in km ²	in km ²	in km ²
211	Non-irrigated arable land	1,09	1,09	0,9	0,83	0,83
222	Fruit trees and berry plantations	0,56	0,48	0,48	0,48	0,48
231	Pastures	96,24	66,99	72,32	73,47	73,40
242	Complex cultivation patterns	32,20	31,54	30,89	30,71	30,78
243	Land principally occupied by agriculture with significant areas of natural vegetation	285,15	283,93	149,47	148,85	148,85
	Total	415,24	384,05	254,08	254,37	254,37

Table 1: Summary statistics of agricultural areas for the period 1990-2018.

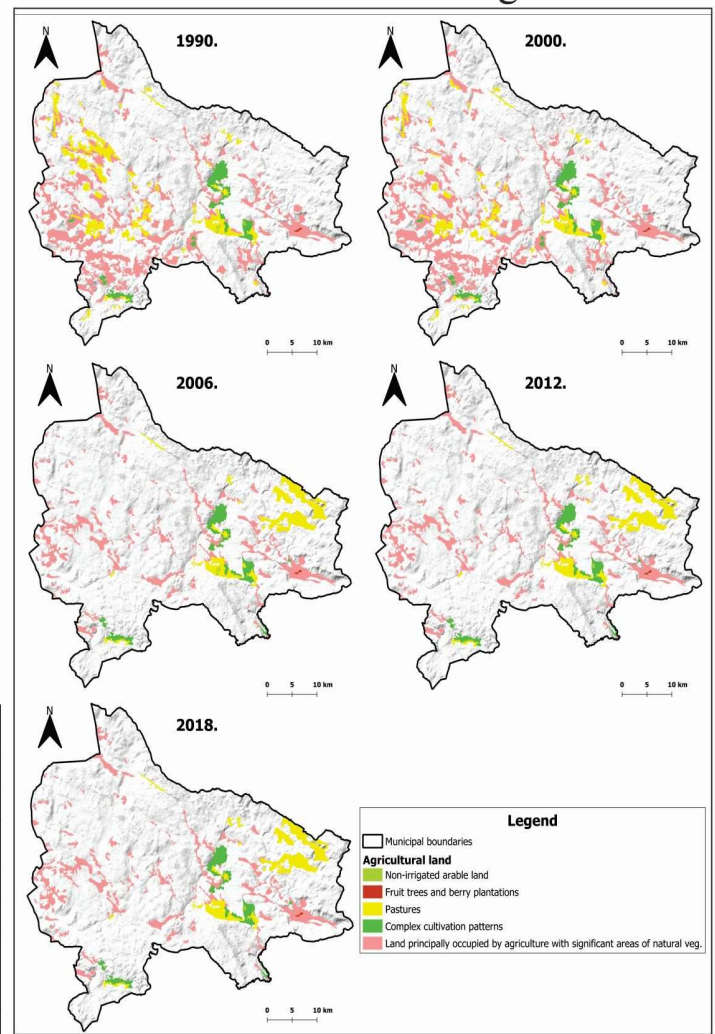


Figure 2: Agricultural land in the municipality of Nikšić for the period 1990-2018. according to CORINE Land Cover (CLC)