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Sentinel 2a in mountain landscape mapping – region of mountainous Croatia

Valerija Butorac¹, Andrija Krtalić², and Nenad Buzjak³

¹University Of Zagreb, Faculty of Science, Department of Geography, Croatia (vbutorac@geog.pmf.hr)

²University Of Zagreb, Faculty of Geodesy, Croatia (kandrija@geof.hr)

³University Of Zagreb, Faculty of Science, Department of Geography, Croatia (nbuzjak@geog.pmf.hr)

In mountainous regions such as mountainous Croatia, natural and semi-natural landscapes are most common and are changing due to climate change and more intense economic activities. Due to these changes, there is a need of inventarisation and valorisation of mountainous landscapes in order to manage and preserve them. In Croatia, there is no inventory that would provide us with a zero status of mountain landscapes. On the other hand, the mountainous environment and the size of the area present an obstacle for landscape mapping. The use of Sentinel-2a imagery and a digital relief model allow a fast, inexpensive, and accurate mapping of landscapes in large areas such as mountainous Croatia. Orthophoto images were used to increase the accuracy of sampling and thus the accuracy of the final classification. Remote sensing techniques, GIS analysis and field validation were used to create an inventory of the landscapes types. This type of landscape mapping, which includes geological, geomorphological and land cover data, provides a better understanding of the composition and configuration of mountain landscapes, leading to knowledge-based management and landscape-level protection.