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ENVIRONMENTAL APPROACH OF LAND COVER AT LOCAL LEVEL: STUDINEŢ CATCHMENT (EASTERN ROMANIA)

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Abstract

This paper is an environmental approach of land cover in rural areas, based on a case study of Eastern Romania: Studineţ catchment (9669 hectares). The information necessary to shape the profile of the research area is obtained through diachronic and comparative analysis of different land cover categories. For this purpose, three distinct aspects were analyzed: weight and fragmentation of arable land; evolution and current weight of forests; expansion of xerothermophilous shrubs. Arable lands were approached at the maximum details level of the orthorectified aerial photos (0.5x0.5 meters) to highlight the subsistence farming system in small plots improperly oriented on slopes. Also, the authors estimated the natural extension of forests and made a comparative analysis of humanization and forest dynamics between 1772 and 2010. Slope factor was used to calculate the afforestation needs in the idea of restoring natural equilibrium, if possible. The expansion of shrubs was interpreted to find an answer for a burning question: which is the future trend in terms of local land cover? Overall, the study reveals major imbalances between land cover and human society, integrating historical data, cartographic documents, aerial photos and remote sensing in Geographic Information System.

Key words: arable plot, forestry dynamics, land cover, shrub

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