

WHICH INFLUENCE HAS DEFORESTATION ON TOURISTIC RECREATIONAL AREAS IN SUCEAVA COUNTY?

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Abstract

Deforestation is the problem that affects forest ecosystems and indirectly influences the other components of the geographical system. Degradation of forests is a continuous process that destroys more and more the biodiversity of the Carpathian environment in Romania, but also a series of recreational services. Overexploitation of wood resources, climate changes, and the construction of new roads are important causes of deforestation. In this article, I wanted to analyse the connection between deforested areas and tourist recreational areas in Suceava county. The results of the research reveal the fact that with the increase of deforested areas in the Carpathian Mountains, there is also instability in the touristic recreational areas.

Key words: environment, sustainability, recreational activities

Introduction

Our planet is going through a period of multiple changes, some of them major, so that the properties of the environment are affected by each disruption of ecosystem normality (Sirbu and Benedek, 2012). Deforestation is an increasingly common problem internationally.

Degradation of the forest ecosystem is found from the equatorial forests to the temperate forests of Europe or Siberia (Allan et al. 2017; Bradshaw et al. 2007). The mission of international bodies is to encourage efforts to protect the environment (Bothe et al., 2010), how to improve the quality of life through recreational activities (Khalid et al., 2018).

The international legislative framework provides urgent measures for the development of non-polluting mechanisms, reforestation projects or the large-scale use of renewable resources. (Wang et al., 2021) Forests constitute a significant resource for the inhabitants of areas with rich forest resources because they offer the existence of some possibilities of capitalization through a series of economic activities of exploitation or processing of wood mass.

In this article, we would like to highlight the influence of deforestation on certain tourist areas in Suceava County during the period 2001-2016.

Material and methods

The analysis of deforested areas in Suceava County was realised based on the Landsat-7 Enhanced Thematic Mapper Plus (Landsat-7 ETM+) images from Global Forest Change (GFC) from the University of Maryland (Hansen et al. 2013). Also, based on the literature review, we could make the link with the significance of deforestation on recreational activities, especially for the mountain areas.

Results

At the level of Suceava County, a very high degree of forest coverage can be noted in the western part of the county and small and very small areas are found in the eastern part of the county, in the latter the areas occupied by agricultural land are generally predominant (figure 1).

The situation of deforestation for the period 2001-2016 (figure 2) highlights the presence of five distinct intervals, noting very high rates of deforestation in the communes in the western part (Carpathian area) and lower rates in the eastern part of the county. The communes with very large deforested areas (>1,500 ha) are the ones that have such resources and are located in the mountainous area, characterized by a variety of forests, from deciduous forests to conifers and mixed forests.

The evolution of deforested areas for the period 2001-2016 (figure 3) can be noted three distinctive years, with high values of deforested areas: 2002 (4,837 ha), 2007 (9,616 ha) and 2012 (5,484 ha), an aspect also noted by the presence a significant number of extreme values, for the same years. This shows the fact that, within the years marked by the presence of several extreme values, there are as many localities as possible, which face significant deforestation. The total area of forest cut at county level, for the entire period, is 46,733 ha, with significant fluctuations from one year to the next. In general, the deforested areas showed significant annual fluctuations, the years with values below 1,500 ha are 2003 (765.8 ha) and 2004 (1,032.5 ha).

The stability of the tourist areas is affected by the changes brought to the environment and in particular, the forest environment. The Carpathian environment in Suceava county offers multiple recreational services: winter sports tourism, hiking, mountain trails, outdoor activities.

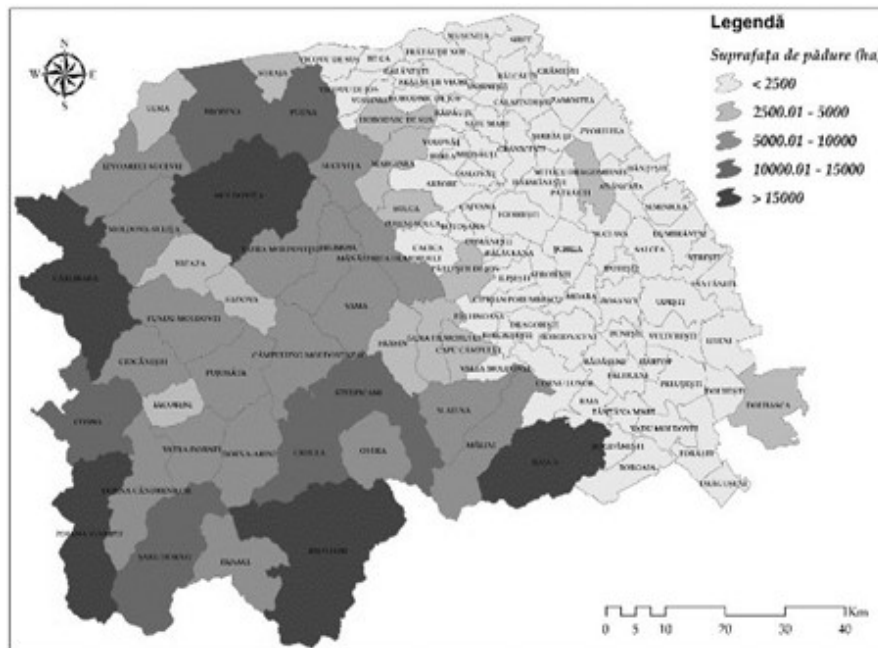


Fig. 1: The area occupied by forest in the period 2001-2016 in Suceava county, marked by shades from dark gray, mainly in a few communes in the western part of the county to light gray, in the eastern part of the county

Data source: Adapted from Hansen et al., 2013

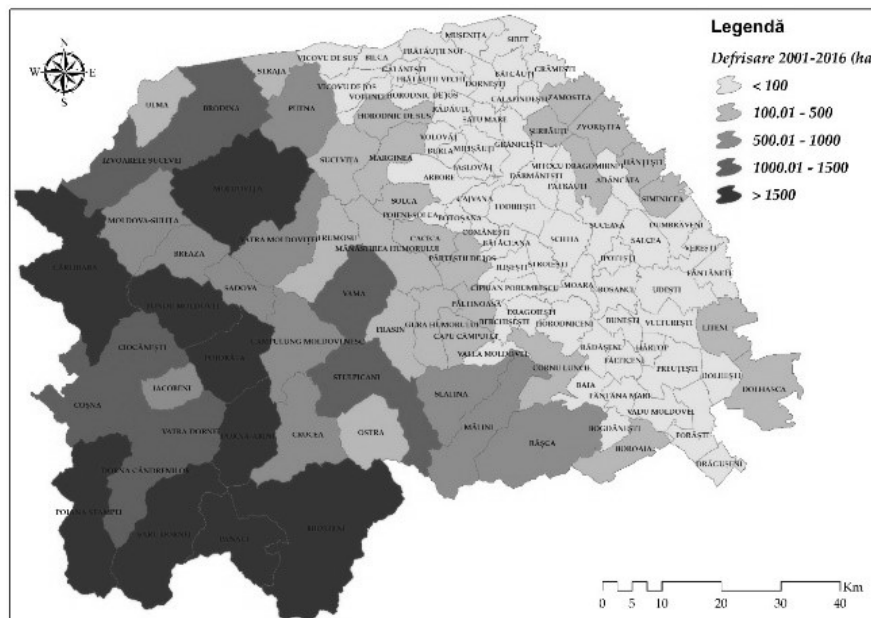


Fig. 2: The situation of deforestation in the period 2001-2016 in Suceava county

Data source: Adapted from Hansen et al., 2013

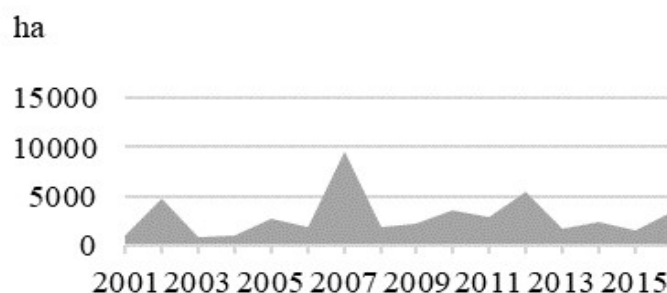


Fig. 3: The evolution of deforested areas in the period 2001-2016
Data source: Adapted from Hansen et al., 2013

Discussion

The increase in deforested areas implies changes in the structure of the geographical environment through changes in the landscape and the transformation into heavily anthropized natural environments. Keeping the mountain environment safe, good environmental education clearly demonstrates the importance of forests in the existence of quality tourist services. At the level of Suceava county, the high rates of deforestation in the Carpathian communes determine the degradation of access to quality tourist services: the destruction of the transport infrastructure because of the transport of wood, the impact of landslides and floods, the intense processes of soil erosion, the acceleration of processes of surface erosion.

Conclusion

Forest exploitation determines the instability of the geographical environment, and its influence is felt at the socio-economic level. Recreational services are dependent on a geographic environment and deforestation is an important natural element of stability. The reduction of forest areas will in the long run lead to deep structural changes and affect their sustainable development.

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Souhrn

Lesy představují významný zdroj pro obyvatele oblastí s bohatými lesními zdroji, protože nabízejí určité možnosti kapitalizace prostřednictvím řady ekonomických aktivit těžby nebo zpracování dřevní hmoty. Důležitými příčinami odlesňování jsou nadměrné využívání zdrojů dřeva, klimatické změny a výstavba nových silnic. Na úrovni okresu Suceava podmiňuje vysoká míra odlesnění v karpatských obcích zhoršení dostupnosti kvalitních služeb cestovního ruchu: zničení dopravní infrastruktury z

důvodu přepravy dřeva, dopady sesuvů půdy a povodní, intenzivní procesy eroze půdy, zrychlení procesů povrchové eroze.

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