

ABSTRACT

Consistent recording of data on Land Use makes it possible to carry out a detailed analysis of a landscape development in the Czech lands over the last 160 years. Since the 1970s there have been Land Use studies using these records but they usually focused on statistical data processing for whole cadastre areas. With the introduction of the Geographical Information System (GIS) we have had an opportunity to effectively analyse the map data and thus to observe the structure of landscape and the surfaces as well.

This dissertation thesis deals with the Land Use development of cadastres Teletín and Třebosín between the years 1840 and 1999, using the Arc View desktop GIS computer program. Its aim is to identify all the changes in the Land Use and drawing on knowledge of general trends in the landscape and society development to explain and comment on these changes. The comparison of the results of this study (map analysis GIS) with the recorded data (statistics Land Use data for individual cadastres) creates also an important part of the dissertation.

Maps from the year 1840 and my own field map works Land Use in the 1999 are used for the analysis. In order to illustrate development of several indicators between the two time horizons same aerial photographs from 1953 are used. Different types of land are broken down into 14 categories: arable land, lay-aside arable land, gardens, orchards, meadows, grass growths not being used, pastures, forests, water areas, reinforced areas, bush pastures, shrubs, weekend house settlements and the rest. Each Category is identified by characteristic features pertaining mainly to specific development, integrity and stability of that particular area. These indicators characterize each cadastre as a whole thereby illustrating its heterogeneity, transport penetration and landscape stability.

The results of the work have shown a notable difference in the landscape and its use in 1840 and in 1999. In 1840, diversity of the cultivated part of the landscape is a specific characteristic feature. The landscape then was very broken and all its areas were cultivated and well kept. The rest of the area was covered with forest. These two dominant categories (forest and arable land) covered most of the two cadastre areas. In 1999 a big part of the area is uncultivated, in the Třebosín cadastre is the lay-aside arable land among the most dominant categories. The proportion of arable land is much smaller in 1999 than it was in 1840. The development of all the categories was analysed in detail. It was found out that there were no lay-aside arable land areas, unused grass growths, weekend house settlements and shrubs (that are of no use for people) in 1840. Nowadays we cannot find any bush pastures in our interest cadastre areas. There were also identified some development differences between the two cadastres (the Teletín cadastre has kept more of its original agricultural use and forestry, on the contrary in the Třebosín cadastre there have been fast changes leading to creation of settlement areas, a bigger part of the landscape has become uncultivated). The comparison of the development of a larger scale units showed that the development of both cadastres is more similar to the development of the “interest territory”, in which these two cadastres lie, than to the development of the Czech Republic as a whole. A fact that two generally used landscape characteristics (IZ, KES) give a characteristic evidence was verified. These characteristics give a reliable evidence, although they are calculated from statistical data for whole cadastres which take no account of the landscape structure and territorial relationships.

I recommend to compare results of this dissertation thesis with results of at least other three similar theses, that were written at the same time as this one, but that were using different methods and were focussed on different “interest territories”.