Dynamic of the Agro-pastoral Landscape in the Upper Basin of the Someşul Mare River

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Abstract

The changes in the society are directly reflected in the landscape’s physiognomy, structure and functionality, requiring rigorous studies and new ways of action in order to harmonizing the relations between man and its environment.

The upper basin of the Someşul Mare River lies on the contact area between the Rodnei and Suhard Mountains and the Bârgău Mountains. The geographic space of this hydrographic basin has a square-like shape, crossed diagonally by the Someşul Mare River, a true morphological-hydro-geographic and habitat axis. Extended on over 1000 km², the upper basin of the Someşul Mare River is characterized by a downward gradient of almost 1900 m, between the Ineu peak in the Rodnei Mts. (2279 m) and the confluence with the Ilva River (400 m).

By trying to recompose the initial geographical landscapes, we will be able to work out and propose some possible scenarios of the evolution of these landscapes, so that the ecological balance shall not be disturbed.

In this presentation, we realized observations, analysis, and interpretations based both on the detailed study of the geographical spatial reality and on data from the State Archives in Bistriţa and Cluj-Napoca (for the years 1850 and 1938) or the local authorities (for the year 2006).

Based on this data, linked with the field studies, we realized correlations, analysis, and interpretations that will further allow us to recreate the agro-pastoral landscapes as they existed in the three chosen historical periods.

In 1762, the Austrians established in the upper basin of the Someşul Mare River a border regiment, as a military, political, and administrative entity. Through special laws and ordinances, the imperial military authorities enacted the concentration of the dispersed housings from the glades in clear shaped settlements and begun the distribution of mountain terrain for herbage and large-scaled deforestations.

The doubling of the livestock in less than one century happened concomitant with the triplication of the agricultural area. If we try to evaluate the types of land use for the year 1850, we can observe the wide extension of the forest landscape (67%), followed by the agro-pastoral landscapes, where pastures and meadows occupy 97% of the agricultural area. The actual agricultural landscapes occupy only 2% of the basin’s area, because the infields count only 2100 hectares.

Up to the year 1938, the evolution of landscapes reveals an appreciable expansion of agro-pastoral landscapes to the disadvantage of the forest ones. The forest area decreases to fewer than 60%, but the forest landscape diversifies, as the Austro-Hungarian forestry authorities begun, after the year 1900, a wide process of replacing the deciduous woods (which formed a compact belt between 800 and 1200 m altitude) with spruce and fir. The agro-pastoral landscapes include now: pasture and meadows – almost 35% of the basin’s area; infields – 5%.

Physiognomic and structural, the agro-pastoral landscape in the upper basin of the Someşul Mare River keeps its characteristics till the 1990’s. Beginning with the year 1990, the lack of viable economic alternatives to the recession of mining pushed the inhabitants of the basin to find their means for living in exploiting and primary processing of wood, causing a considerable decrease of the forest areas. As a result, the year 2006 reveals the following situation: the forest
area drops under 50% of the basin’s area, the pastures and meadows occupies almost 40% (by fallow-lying once arable land, and including clearings and non-forested areas), and the infields drop to 2%, as a result of the “invasion” of the corn and vegetable markets with products from other EU countries.

The enlargement of the Rodnei Mountains National Park in 2004 creates the premises for a rebalancing of the natural environment, which, in an optimistic scenario, will regain, together with the landscapes, its initial condition.

Key words: landscape’s physiognomy, agro-pastoral landscape, ecological balance, agricultural area, pasture and meadows, forest area, arable land