



## **Time and space adjustments of Somesu Mic River. Causes and effects**

### **I. Persoiu**

Faculty of Geography – Geology, “Al. I. Cuza” University, Iasi, Romania

Somesul Mic River is located in the NV part of Transylvanian Basin, Romania, formed from the confluence of Somesul Cald River and Somesul Rece River. Is a 105 km long river with discharge of about 20 mc/s (Salatiu hydrometric station), and drainage basin of 3774 Km<sup>2</sup>.

In order to understand the river's adjustments, we have analyzed the channel planform behavior and the controlling factors from a cause-effect perspective.

In this study we have used five sets of topographic maps, with scales ranging between 1:28.800 and 1:25.000, covering a period of nearly 140 years and also instrumental measurements of discharge from 4 hydrometric stations along the river, covering the last four decades.

Base on the combination of the obtained data, we have found that there can be distinguished three different situations witch occur along the river: 1) stability, characterizing sinuous sectors, 2) decrease of the channel's dynamic character (straightening and shortening of the channel through meander neck cut-off), and 3) increase of the dynamic character (evolution of the meanders towards higher complexity), the last two cases being characteristic for the meandering and braiding sectors of the river.