The utilization of GIS and satellite images in the vegetation and soil covers' mapping from Ciric basin (Iasi county)

SECU C., NIACŞU L., URSU A. - Universitatea "Al. I. Cuza" Iasi
PARNĂU R. - County Office for Soil Survey Iaşi

Ciric river, tributary on the left of Bahlui, is a small-dimensioned basin, but the anthropic influence being visible on this territory through the extension of the urbanization process in its lower compartment, in the form of reservoirs, and agricultural terrasses .
On the basis of the satellite images we wanted to analyze: the mapping of the natural (forested and herbaceous) and anthropic ecosystems types (perennial and annual crops); the delineation of the degraded soils and ecosystems, relieving the advantages and disadvantages in the mapping of the vegetation and soils on the basis of the satellite images. The satellite images (SPOT and ASTER) allow the mapping of the degraded sectors through erosion, landslide processes and vegetal association. The limits of this vegetal association are clearly delineated, often of a rectilinear aspect, fact that differentiates it from the herbaceous association, which has similar colors but dendrite forms in river meadow. In Ciric basin a high degree of homogeneity is specific to the vineyards but this is differentiated from other cultures by the roads between the parcels, aspect perceived by satellite image in texture. The landslide body occurs on the satellite image under the form of a mixture of colors specific to vegetation (nuances of red) and to the terrains lacking vegetation (blue) and the sliding cornice may be clearly drawn when the landslide body is delineated at the upper part by cultivated terrains.
The difficult for mapping the anthropic areas is given by limits of localities and the multitude of the object inside the localities and from the neighboring areas, and in some cases by anthropic materials for example in down sector of basin.