Geophysical Research Abstracts, Vol. 9, 11071, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-11071

Impact of Cerna - Motru - Tismana hydroenergetic complex upon the environment

A.M.Mainerici
National Institute of Hydrology and Water Management

The object of the present paper is to analyze the impact of CERNA-MOTRU-TISMANA hydroenergetic structure upon the hydric regime of rivers. CERNA-MOTRU-TISMANA hydroenergetic complex significantly have modified the following environmental factors: Ţ the hydrological regime has been affected both in a negative way (flow transfer) and in a positive one (significant flow supply) for the Tismana River. Ţ the relief close to large rockfill dams such as (Cerna, Valea Mare si Vaja) has been modified by the limestone and clay quarries which have been incorporated in the dams (Cerna dam's height is 110 m). The relief has been also modified by the construction of new roads along the storage reservoirs and the river sectors affected by the works. Ţ the vegetation of the areas affected by the works has been changed as a result of clearing in the river basins, brought about by the clay quarries and construction sites in the area. Ţ the mountain landscape in the hydoenergetic complex area has been totally changed by the presence of big lakes (Cerna, Valea Mare, Vaja, Clocotis) and their dams. Ţ the modernizing of communication lines between Herculane and Petrosani will exercise a great influence upon the natural environment along Cerna Valley.