

## **DEGRADATION OF EARTH'S DAMS UNDER THE EFFECT OF CLIMATE CHANGE**

**Violeta DOMINTE (CROITORU)<sup>1</sup>, Mihail LUCA<sup>1</sup>, Ioana AGAPIE (MEREUȚĂ)<sup>1</sup>**

e-mail: croitoru.violeta27@gmail.com

---

### **Abstract**

The paper presents a summary analysis of the phenomena of the degradation of earth dams by the action of changing climate conditions in the eastern part of Romania. Climate change over the last 30 years has led to hydrological risks in the hydrographic network, represented by rapid, frequent flash floods over short periods of time. The floods are due to the uneven distribution of rainfall over the year. The floods are concentrated in a short time and have a very high intensity. This is a major cause of the degradation of dams. Most damage occurs due to floods associated with structural faults, mechanical faults, or hydraulic faults. This situation is confirmed by the events that have taken place over the last 30 years at a series of earth dams in Suceava county (eg. Crujana, Grănicești, Horodnic etc.). The destructive actions were manifested by structural degradations to the dam body, to the large water drain, to the bottom emptying, to the drainage system, etc. In order to prevent adverse events, the term "safety" of hydrotechnical constructions must be taken into account at all stages of the design, execution and operation work. In order to prevent possible accidents that could occur through a dam failure, tests and models shall be carried out in specialized programs.

**Key words:** climatic changes, failures, floods, water evacuators