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ALBANIA | DAM SAFETY SURVEY ON DRIN AND MAT RIVER CASCADES

PROJECT

CLIENT >	**SECO ELECTROWATT – EKONO LTD.**
LOCATION >	ALBANIA
DURATION >	2005 - 2009
COST >	CHF 250'000.— (Swiss Grant Contribution)

The five hydropower plants (HPPs) on Drin and Mat River Cascades represent more than 90% of Albania's installed power capacity. The seven dams and appurtenant structures show signs of distress.

Given the huge economic losses and the heavy human consequences that may result from an eventual complete destruction of the dam structures, or from a land slide into the lakes, it is imperative to detect and eliminate existing damages and risks as soon as possible, not to be faced with an unexpected situation.

PARTICULARITIES

According to the urgent need for remedial civil works at the dams and appurtenant structures the owner and operator of the HPPs (KESH) called for a study on the status of their safety conditions.

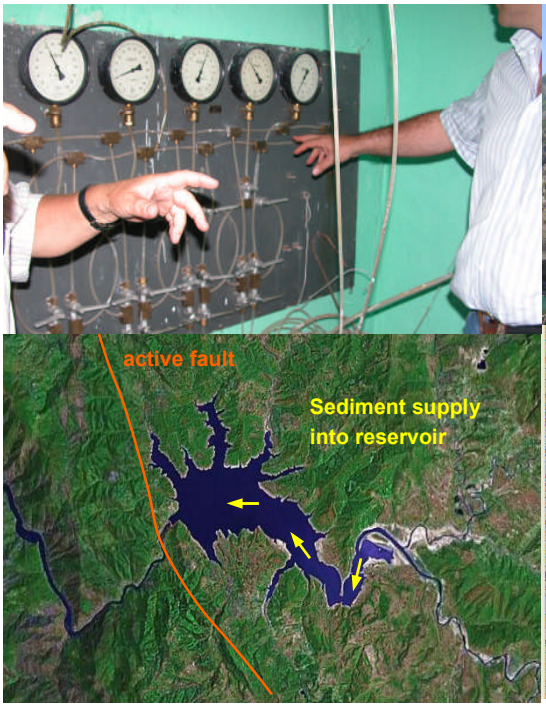
The complex study is being carried out by a technical advisory team of the Swiss companies of Electrowatt-Ekono Ltd. and CSD Ltd. The study is financed by the Swiss State Secretariat for Economic Affairs (seco) and is focused on 4 Modules:

- A: Institutional Capacity Building.
- B: Geological Hazard Assessment.
- C: Civil Works and Control Systems of Dams and Appurtenant Structures.
- D: Dam Brake Analysis and Emergency Action Plan.

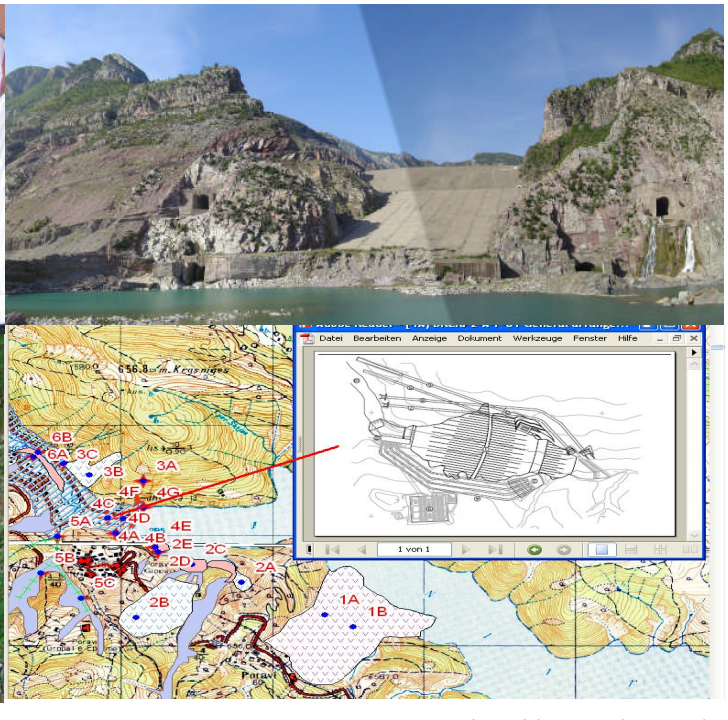
OUR PERFORMANCES

Experts of CSD Ltd. carried out the studies of Module B:

- Assessment of institutions and data related to natural hazard.
- Assessment of present hazard monitoring.
- Sesmic and tectonic hazard.
- Assessment of major landslide in the reservoirs.
- Rock fall and minor landslides on dams and appurtenant structures.
- Erosion of banks and slopes.
- Exceptional sedimentation into the reservoirs.
- GIS-compilation of natural hazards.
- Environmental and Emergency Monitoring.
- Individuation of priority activities.
- Recommendation of mitigation measures.



Pore pressure monitoring at Vaut I Dejes Dam and satellite image of Ulza Reservoir.



Downstream face of the Komani Dam and GIS –compilation of natural hazard at Fierza Dam.