

KARSTIC PHENOMENA OF THE BOUKADIR-CHLEF. GEOLOGICAL, HYDROGEOLOGICAL AND MINERALOGICAL CHARACTERIZATION

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Calcareous environments occupy 10% of the surface of the globe (continents and seas). The fragility, dissolution and rapid evolution of these formations constitute, in addition to the occurrence of the karstic forms, a major risk and a potential hazard for the equilibrium of these grounds and more specifically for the infrastructures.

Carbonate rocks are also present in the Mediterranean Basin and represents, depending on the country, about 30 to 70% of the surface area.

The karstic formations also occur in Algeria. Among the best examples observed across the national territory are the ones found in: Tlemcen (karstification well developed at depth) and Saida (karstification well developed at the surface), the calcareous ridge of Djurdjura, Jijel...

The region of Boukadir situated in the northern piedmont of Ouarsenis is the location of karstic forms and has witnessed the occurrence a large collapse of the national road RN4 linking the wilaya of Algiers to Oran in 1988. However, this region has never been defined as a karstic region.

For a better understanding of these phenomena, it's essential to catalog and create an inventory of karstic forms developed in this region, to analyze in detail the geology and hydrogeology, using different tools such as : geological maps, drilling and different stratigraphic logs, aerial photography, hydrogeological and piezometric data, and of course, confirm all with a mineralogical study which is based on a morphoscopic analysis of thin sections and a diffractometric examination (DRX) of the samples collected around this locality.

The Analysis and evaluation of this hazard is therefore dependent on the knowledge and study of the geology and hydrogeology of these lands, and especially the detection of the location of this phenomenon.

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