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Geomorphology of Karst Features of Shiraz City and Arjan Plain and Development Limitations

Authors : Meysam Jamali, Ebrahim Moghimi, Zean Alabden Jafarpour

Abstract : Karst term is the determiner of a variety of areas or landforms and unique perspectives that have been formed in result of the ingredients dissolution of rocks constituter by natural waters. Shiraz area with an area of 5322km2 is located in the simple folded belt in the southern part of Zagros Mountain of Fars, and is surrounded with Limestone Mountains (Asmari formation). Shiraz area is located in Calcareous areas. The Infrastructure of this city is lime and absorbing wells that the city has, can influence on the Limestone dissolution and those accelerate its rate and increases the cavitation below the surface. Dasht-e Arjan is a graben, which has been created as the result of activity of two normal faults in its east and west sides. It is a complete sample of Karst plains (Polje) which has been created with the help of tectonic forces (fault) and dissolution process of water in Asmari limestone formation. It is located 60km. off south west of Shiraz (on Kazeroon-Shiraz road). In 1971, UNESCO has recognized this plain as a reserve of biosphere. It is considered as one of the world's most beautiful geological phenomena, so that most of the world's geologists are interested in visiting this place. The purpose of this paper is to identify and introduce landscapes of Karst features shiraz city and Dasht-e Arjan including Karst dissolution features (Lapiez, Karst springs, dolines, caves, underground caves, ponors, and Karst valleys), anticlines and synclines, and Arjan Lake, which are studied in this paper.

Keywords : Dasht-eArjan, fault, Karst features, polje, Shiraz city, Zagros
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