



## Distribution of precipitation in Iran

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According to Sumner (1988), precipitation is a number of manifestations of water, in all its forms, in the earth-atmosphere systems. Usually the depth of precipitation totals in mm is reported by a rain gauge observation as a point measurement. Precipitation time series is a data series (hourly, daily, monthly...) obtaining from each precipitation station with a long-term record. Precipitation shows a considerable spatial and temporal variation. This paper then devoted to the regional study of precipitation analyses in time and space for Iran. Our results show that the rainy period in most of the country is from November to May. The average annual rainfall is about 240 mm. Maximum amounts fall on the Alborz and Zagros slopes facing north and west respectively, where the mean annual rainfall is more than 1200 mm. Going inland, the ranges of precipitation decreases to less than 100 or 50 mm annually. The amounts vary considerably with topography. In the northern and western mountains the annual mean precipitation is more than 480 mm, snow forms most of the precipitation. The plateau has most of its rainfall in spring, while on the western and southern coasts most of the rain falls in winter. On the Caspian coasts, where the rain falls earlier, the rainfall is at its maximum in autumn. In the dry period between May and October, rain is rare in most of the country.

In other words, it seems that the temporal and spatial distribution of precipitation in Iran is volatile, as 90% of total precipitation occurs in cold and humid seasons and in northern and western parts of the country and only 10% occurs in warm and dry seasons and in central, southern and eastern parts. About 52% of precipitation occurs in 25% of the area of the country; hence some parts of the country will suffer a lack

of water resources and water crises in the near future.