



CLOUDS

CLOUDS (Skt. *abhrá-*, Av. *aβra-*, Sogd. *ʾβr*, Khot. *pyaurā-* [*< *pari-abrā-*, but *aurā-* “sky”], Pashto *wryaj* fem. [*< *abračī*], Pers. *abr*, etc.; see Bailey, *Dictionary*, pp. 47a, 256b), masses of condensed water vapor. Four general categories are differentiated: high clouds, clouds at medium elevations, low clouds, and clouds with marked vertical development. Each category includes three basic variants: cirrus (Lat. “lock, tuft of hair”), almost transparent clouds formed of tiny ice crystals at altitudes of 6,000-12,000 m; cumulus (Lat. “heap”), billowing forms at altitudes of 3,000-6,000 m, usually drifting in broken patterns, with a strong tendency to grow vertically; and stratus (Lat. “cover, blanket”), often unbroken overcasts from ground level to 3,000 m or more. In Persia, as elsewhere, clouds are useful indicators of general weather conditions and also distinctive elements in regional landscapes.

Most of Persia and the neighboring regions is located in the subtropical transitional zone between the tropical and temperate zones of the northern hemisphere and, owing partly to dramatic topography, is characterized by great variations in [climate](#).

Large tracts of central Persia and the adjacent arid plateaus of Afghanistan lie under cloudless skies for most of the year, which contributes to typical “continental” climatic conditions: extremely dry with hot summer days and clear, comparatively cool nights; winters are also dry but can be extremely cold, with frequent frosts, especially at high altitudes. Nevertheless, clouds do sometimes appear. In the summer months, with cold air at extremely high altitudes, cirrus are common, and in the winter even stratus cover and



occasional rainfall are possible. Haze resulting from high humidity is not unknown in central Persia, especially when there is a great deal of dust in the air.

On the other hand, the Zagros and the Hindu Kush, and to a lesser extent the [Alborz](#) and Makrān ranges, constitute powerful barriers to the flow of air masses. Moist winter westerlies, especially from the Mediterranean but also from the Persian Gulf, strike these mountains and are forced upward, producing either cumulus clouds, very often accompanied by heavy thunderstorms, or stratus cover, which is the main source of heavy precipitation. The heavier the cloud cover, the more ecologically and economically effective the winter precipitation, for the clouds reduce evaporation from the earth. Comparatively high precipitation, much of it as snow, combined with low temperatures, dense cloud cover over extended periods of time, and resulting minimal runoff are thus important elements in the ecology of the mountain fringes.

On the other hand, large tracts of the Caspian littoral in Gīlān and western Māzandarān are exposed to northerly winds laden with moisture from the Caspian Sea and receive annual precipitation of 2,000 mm or more. The steep Alborz mountain system forces these humid air masses to ascend and to condense; fairly permanent cloud cover is therefore characteristic over wide parts of the western Caspian lowlands. In fact, clouds are a prominent element in the natural landscape of this area, especially in autumn, winter, and spring. Dense cloud cover and high humidity also range up to approximately 2,200-2,400 m on the northern slopes of the mountains, favoring dense vegetation cover (*jangal*). Thick forests and shrubs prevail at those altitudes, contributing to the unique landscape in this part of Persia.

See also [bārān](#); [barf](#).

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