

Precipitation

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Heavy rain in an English town. With global warming the air can hold more water vapour, and heavy downpours become more frequent.

John Sutton. [CC BY-SA 2.0. Wikimedia Commons.](#)

Condensation of atmospheric [water vapor](#) that returns to the Earth's surface as rain.

Water vapor condensates into clouds as part of the [water cycle](#). When the cloud particles become too heavy to stay in the air, they fall as precipitation.

There are different types of precipitation depending on the atmospheric conditions. It may fall as liquid rain or in a frozen state as snow, hail or sleet.

With [global warming](#) the concentration of water vapor in the [atmosphere](#) and precipitation is expected to increase. More of the precipitation is predicted to fall as rain rather than snow. With less precipitation falling as snow and with what does melting faster, less water will be released evenly throughout the year as meltwater from [glaciers](#) and snow cover. This could make it difficult to maintain a steady water supply in many of the areas that depend on meltwater from mountain ranges to refill water reservoirs.

The distribution of the precipitation is also expected to change as the patterns of atmospheric circulation change. This will result in a higher frequency of drought in some areas while others will flood.

According to the [IPCC](#) water availability is predicted to increase at high latitudes and some wet tropical areas, but decrease in mid-latitude areas and in the dry tropics.

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