

# CLIMATE AND SOIL OF UTTAR PRADESH

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The climate of Uttar Pradesh is tropical monsoon type where winter season is very cold and summer season is very hot. The state of Uttar Pradesh has very fertile land which is mostly covered by alluvial soil. Apart from this, the state has a variety of soil groups which are different from each other, e.g. Bangar, Khadar, red soil, black soil, parwa, month soil, etc.

## *Climate of Uttar Pradesh*

The climate of Uttar Pradesh is tropical monsoon climate. The state also experiences climate variations to large scale due to presence of hills in the Northern part, different elevation and distance from the sea. Thus variation can be seen from Saharanpur to Deoria. The climate is humid, the plains experience extreme climatic conditions i.e. winters are cold and summers are hot and the Southern part experiences severe cols in winter and severe hot in summer season.

Uttar Pradesh is mainly divided into two climatic regions on the basis of rainfall. These are discussed below:

### (i) *Humid and Tropical Region*

It is divided into two sub-groups which are:

### Terai Region:-

This region includes Bijnor, Northern Moradabad, Bareilly, Rampur, Pilibhit, Deoria, Lakhimpur, Bahraich, Gonda, Basti, Gorakhpur, Siddharthnagar, Maharajganj, Sant Kabir Nagar, Padrona, etc. This area is a marshy land as it is situated at the foot hills of Himalayas. The average annual rainfall in Terai Region is 120-150 cm and average temperature is 18°C to 30°C in January and July, respectively.

### Eastern Uttar Pradesh:-

This region includes Northern Shahjahanpur, Sitapur, Barabanki, Faizabad, Azamgarh, Ballia, Ghazipur, Jaunpur, Varanasi, Bhadki, Chandoli, Southern Allahabad, Kaushambi, Chitrakoot and Mirzapur districts. The average annual rainfall in this region is 100-120 cm. The amount of rainfall decreases from East to West. In this area, there is no effect of winter cyclone.

### *(ii) Moderate Humid and Tropical Region*

This region covers central plain, Western plain, and the hill and plateau region of Bundelkhand. Generally, the average annual rainfall varies from 50-100 cm in these regions.

Thus region is divided into three sub-groups due to variation in rainfall which are:

### Central Plains:-

This region includes Farrukhabad Hardoi, Kanpur, Unnao, Lucknow, Sultanpur, Raebareli, Fatehpur, Pratapgarh and Northern Allahabad. The average annual rainfall in Central Plains is 80-100 cm. The variation of rainfall can be seen in this region as Kanpur, Etawah, and Farrukhabad receive average annual rainfall of 85 cm, 81 cm and 79 cm, respectively.

During summer season dust storm, and westerly winds known as loo flows in this region. Thus, summer season remains very hot with temperature 44°C. During winter season sometime frosting occurs and temperature varies from 15°C - 16°C.

### **Western Plains**

This region includes Muzaffarnagar, Saharanpur, Meerut, Ghaziabad, Gautam Buddh Nagar, Mahamaya Nagar, South-Western part of Moradabad, Bulandshahr, Budaun, Aligarh, Etah, Mathura, Mainpuri and Agra districts. The average annual rainfall in Western Plains varies from 65 cm to 80 cm which can be seen in Agra which receives 65 cm rainfall and Meerut which receives 80 cm rainfall. The rainfall decreases from East to West. It also receives scanty rainfall by winter cyclones. The Southern part of this area remains much hotter as compared to Northern part during summer season. During winter season the average temperature remains from 12°C to 14°C.

### **Hilly and Plateau Region of Bundelkhand**

This region includes Jalaun, Southern Etawah, Banda, Hamirpur, Lalitpur and Jhansi districts. This area receives the average annual rainfall from 80 cm to 100 cm. Rainfall decreases from East to West. The variation of rainfall can be seen in the districts as Banda receives 104 cm, Jhansi receives 90 cm and Jalaun receives 81 cm of average annual rainfall. During summer season temperature varies from 40°C to 45°C. During winter season temperature varies from 18°C to 19°C.