

The Climate of the Pakistan;

Temperature++++Rainfall++++ +Humidity+++++ Atmosphere.

Pakistan has multiple varieties in Seasons, due to its geographical regions different seasons are found here. Inside Pakistan, the temperature went extreme on – 40 and some part of country temperature goes up to 45 Degree Centigrade. Because of its location, the Coastal Line always remains tropical average 33 Centigrade. The Weather conditions in Pakistan have immense variation, Pakistan multiples regions so that it has different climate throughout the country. Generally; the Scientists has divided the Pakistan Climate in Four Region:

- A. Highland Climate Zone.**
- B. Lowland Climate Zone.**
- C. Coastal Climate Zone.**
- D. Aridland Climate Zone.**

A. Highland Climate Zone: This area contains about the Highland kind of Mountains Zone. Included Northern Mountains Karakoram Ranges, Himalaya Ranges Greater Himalayas Lesser Himalayas Siwaliks. This area is Northern part of country and average highest is 5000 to 8000m, there is average temperature 30 Degree Centigrade in Summer Season & -40 Degree Centigrade in winter recorded. The coldest point of the country is Astor, in Gilgat Baltistan Province. The Winter Season spell prolonged and Summer Season spell over two months. This area use to far Snowfall & Rainfall regularly. In winter heavy snowfall occurs daily so that the life of this zone is very tough. Winter Season is severally cold and almost freezing point. No crop and fruits produced. The people live in nomadic life.

B. Lowland Climate Zone: This area contains about Northern Mountains Karakoram Ranges, Himalaya Ranges Greater Himalayas Lesser Himalayas Siwaliks North Western Mountains Hindu Kush Western Mountains Safed Koh Ranges Waziristan Hills Suleman and Kirthar Range. Northern Mountains Sub Himalayas This area contains about the Lowland kind of Climate Zone. This area is Northern Western part of country and average highest is 2000 to 4000m, there is average temperature 25 Degree Centigrade in Summer Season & -05 Degree Centigrade in winter recorded. This part of country enjoyed the full benefits of the all Seasons. The weathers condition is very ideal; tourists

visited here and have a lot of fun. Due to its weather conditions, local crops of fruits and dry fruits produced as much quantum. The Winter Season spell prolonged and summer season spell over five months. This area use to far Snowfall & Rainfall regularly. In winter Snowfall occurs daily so that the life of this zone is very tough.

C. Coastal Climate Zone This area contains about the Coastal Climate Zone. This area is comprises on Makran to Thatta Coast Line, the weather condition of the area is generally pleasant and not much hot; But in summer, Temperature maximum go to 31- 40 degree centigrade and in winter it remains 19- 10 Degree Centigrade. The Coastal Winds keep the influence on the weather conditions. The average Rainfall of the Coastal Area is 250mm annual. However, in summer season some low level cyclones also affected the climate, they produced rains and heavy winds.

D. Arid land Climate Zone. These areas contain about the central part of country and almost comprise the Indus Upper & Lower Plain area. Arid Zone possesses Desert areas like Thal, Thar, Cholistan and Kharan up to Chaggi Hills. The average highest is 100- 500m. Arid land Zone started from Attock and ends at Thatta, the average temperature remains 45 Degree Centigrade in Summer Season. The hottest point of the country is mid Punjab, mid Sindh and mid Baluchistan. The Summer Season spell prolonged over nine months and winter season spell over three months. The Rainfall regularly occurred in Moon Soon Season in different part of the country. But some parts faced the Drought; the life of this zone is very tough this area also called the high temperature Zone.

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1. **Spring; From March to April.**
2. **Summer; From May to September.**
3. **Autumn; From September to October.**
4. **Winter; From November to February.**
5. **Moon Soon, July, August & September.**
6. **Snow falling; November, December, January, February. Northern Areas.**

SUMMER SEASONS: In summer season, the rays of the sun fall vertically in the plain areas of the country, the air when heated expands becomes high and develops a low pressure areas in south western part of Pakistan. Thus in the month of July lowest (994.7 Millibars) pressure is found around Multan and (29.40") (29"45 inches) or (996.0 Millibars) near Lahore & (30.00" inches) or (997.7 Millibars) Southward Karachi. As low pressure prevails over the land and comparatively high pressures over the neighboring cooler oceans, so to fill up the gap of low pressure found on the land areas, the cooler heavier air from high pressure areas of the ocean, known as summer monsoon, brings rainfall in our country.

WINTER SEASON: During winter months the temperature over the land gradually increases and a high pressure gets very low and the pressure over the area is created in the north west of Pakistan. In January, the pressure at Peshawar, 30". 15 inches or (1024.6 Millibars) and at Lahore 30". 15 inches or (1017.4 Millibars) and near Karachi it is 30". 4 inches or 1017.3 Millibars). Thus winter months the winds from north to south began to prevail; these are known as winter monsoon. As these winds blows from land towards the sea, so they are mostly dry.

RAINFALL:-The northern mountains and south western region & also the western part of Indus plain get food amount of rain from western disturbances or cyclone winds coming from the Caspian Sea, areas during winter months, e.g. the rainfall of Peshawar for the year is 33.1 cm., out of which 23.1 cm. from January to March and 11cm up to July. Similarly in northern Baluchistan winter rains are more important than summer rains. The annual rainfall of Quetta is 24.4 cm. Out of which 17.5 cm. is received during December to July. The rain fall received in our country is not distributed evenly throughout the country. Most of the rainfall is received during the months of July to September, but a small amount of rainfall comes during winter months, from December to March, as rainfall is generally concentrated in a few monsoon months. The winter rain falls in heavy showers and much of the runs off the surface without sinking in the ground. The rain in our country varies from year to year. In Pakistan humidity is mostly low and they air is dry for the greater part of the year. Only in coastal areas lied Karachi, there is enough amount of humidity throughout the year. Thus keeping in view the various climatic factors Pakistan can be divided into the following climatic regions:

1. SUB-TROPICAL CONTINENTAL HIGHLAND TYPE: The region includes the mountains in the north and west of the Indus plain. In this region winters are cold and lengthy and often the temperature goes below the freezing point; and the higher peaks remain snow-covered throughout the year. But here summer remains short, cool and temperate. The northeastern mountainous areas (Murree and Hazara division) receive enough rainfall throughout the year, but the maximum rainfalls during the summer months. Thus the northwestern areas have less amount of rainfall as compared to north eastern mountains, e.g. from south of Kohat and Waziristan rainfall decreases, so Quetta Division has a dry climate and there the mean annual rainfall is not more than 50 to 100 millimeters, it mostly comes during winter and spring. In these areas winters are cold & summers are hot. The northwestern mountainous areas receive lower rainfall that is why these are less fertile and have barren rocks without any natural vegetation.

2. SUB-TROPICAL CONTINENTAL PLATEAU TYPE: This region includes the northwestern part of Baluchistan Province. Here winters are cold, and in summer temperature goes higher altitude, but due to poor rainfall, these have turned in to arid desert. In these areas there is a scarcity of rain water and it is less than 10” inches or 25 cm annually, but in some of the places of these areas have the lowest rainfall. Nokundi has only 1.95 inches or 5 cm of rainfall annually, and rain often comes during the months of January & February.

3. SUB-TROPICAL CONTINENTAL LOW LANDS TYPE: This region includes the interior areas of Punjab and Sindh provinces. It has generally arid and extreme climate. Here summer remains long and hot, but winters are cool and short. It has the hottest places of the country, such as Jacobabad or Sibi The rainy season begins in the middle of the summer months. The places, which are situated near piedmont areas, have enough rainfall, i.e. Sialkot has about 30 inches or 88.3 cm of annual rainfall. But the western part of this plain is drier than the eastern due to very poor rainfall. Thal and Cholistan desert in Punjab and Nara and Tharparkar desert in Sindh.

4. SUB-TROPICAL COASTAL AREA TYPE: This region includes the coastal strip around Karachi and Makran coast in Baluchistan. Here due to the influence of the sea, the temperature remains moderate; the rainfall is about 7 inches of 18 cm annually, but due to proximity of the sea, a large amount of humidity remains in the atmosphere. The influence of sea breeze during daytime is felt throughout the summer.