

## **GENERAL**

### **ORIGIN OF NAME OF DISTRICT**

The district has derived its name from its headquarters town Gorakhpur which was named after Gorakhnath, a Kanphata Yogi who came to this place from the Punjab and erected a shrine of Goraksha, a deity of great renown in Nepal. In course of time, he became an eminent religious figure and is said to have founded the city of Gorakhpur.

### **LOCATION, BOUNDARIES, AREA AND POPULATION**

**Location and Boundaries**- The present district of Gorakhpur lies between Lat. 26° 13' N and 27° 29' N and Long. 83° 05' E and 83° 56' E. The district occupies the north-eastern corner of the state along with the district of Deoria, and comprises a large stretch of country lying to the north of the river Ghaghra, the deep stream of which forms its southern boundary with district Azamgarh. On the west, the boundary marches along Basti and on the east adjoins Deoria and the Chhoti Gandak Nadi and in further south the Jharna Nala forms partly dividing line. In the north lies the territory of Nepal.

**Area**- According to the Central Statistical Organization the district had an area 6,316 sq. Km. on July 1, 1971, occupying the 15th position in the State. Area of the district is apt to change from year to year, due to fluvial action of Ghaghra. On the basis of land records it was about 6,301 sq.km. in 1971.

**Population** - According to the census of 1971 the district occupied the 2nd position in the State in respect of population which was 30,38,177 (14,57,587 females). The rural areas were inhabited by 27,98,019 persons (females 13,50,620) and the urban 2,40,158 (females 1,06,967).

### **HISTORY OF DISTRICT AS ADMINISTRATIVE UNIT**

The present district of Gorakhpur at the time of transfer to the East India company by the Nawab vazir of Avadh, was part of a larger tract which consisted of not only the entire area of the district of Gorakhpur and Basti but also included the 17 parganas forming the chakla of Azamgarh and Mahul, 6 parganas of chaklas Nawabganj in Gonda, and 7 parganas of Khairigarh, lying far away to the north of Kheri. On administrative grounds

Khairigarh was detached in 1802. In 1816, on the conclusion of the war with Nepal, the principality of Butwal, save the parganas of Binayakpur and Tilpur, was made over to Nepal and about the same time Nawabganj was restored to Avadh. In 1820, the chakla of Azamgarh and the greater part of Mahul were transferred to Ghazipur and Jaunpur respectively and after the freedom struggle of 1857, a strip of the terai in the north was transferred to Nepal. The district was still too large to be administered as a single unit and in 1865, six parganas, together with the greater part of Maghar and a portion of Binayakpur were united to form the new district of Basti. In 1904, a small tract of 122 villages in pargana Dhuriapar was transferred to Azamgarh due to change in the course of the Ghaghra.

In 1946 the district was split into the Gorakhpur and Deoria districts.

### **SUBDIVISIONS, TAHSILS AND THANAS**

The district has four subdivisions, Pharenda, Maharajganj, Gorakhpur and Bansgaon, each also forming a tahsil of the same name.

Tahsil and subdivision and Pharenda, comprising the north-western portion of the district, consists of pargana Binayakpur and a part of the pargana of Haveli. It is bounded on the north by Nepal, on the east by tahsil Maharajganj, on the south by tahsil Gorakhpur and on west by district Basti. According to the census of 1971 it has 641 villages covering an area of 1,495.5 sq.km. with a population of 5,06,357 (females 2,40,633).

Tahsil and subdivision Maharajganj, respresenring north-eastern portion of the district, is composed of the two parganas of Haveli (part) and Tilpur. It abuts in the north upon Nepal, in the west upon tahsil pharenda, in the south upon tahsil Gorakhpur and in the east upon district Deoria. According to the census of 1971 it has an area of 1,755.2 sq.km. and a population of 6,74,221 (females 3,23,165) and comprises of 765 villages.

Tahsil and subdivision Gorakhpur, embracing the central portion of the district, consists of the parganas of Hasanpur, Bhauapar and Haveli (part). It is touched on the north by tahsil Pharenda and Maharajganj on the east by district Deoria, on the west by district Basti and on the south by tahsil Bansgaon. According to the census of 1971 it has an area of 1,701.6 sq.km. and a population 11,49,411 (females 5,38,708) and comprises of 1,245 villages and the town of Gorakhpur.

Tahsil and subdivision Bansgaon, occupying the southern portion of the district, consists of parganas of Dhuriapar, Chillupar, Bhauapar and Unaula. It adjoins tahsil Gorakhpur in the north, district Deoria in the east, district Basti in the west and is separated by Ghaghra from the district Azamgarh in the south. According to the census of 1971, it has an area of 1,383.3 sq.km. with a population of 7,08,188 (females 3,55,081) spread over in 1,965 villages and a town.

**Thana** - For the purpose of Police administration there are 28 thanas (Police Stations) in the district, of which, 6 are located in tahsil Pharenda, 5 in tahsil Mahrajganj, 11 in tahsil Gorakhpur and 6 in tahsil Bansgaon.

### **TOPOGRAPHY**

The district presents characteristics distinct from natural features of the western districts, of the State. This difference is due primarily to the relative proximity of the Himalayas. The outermost foothills are but a few kilometers distant from the northern borders, and the high peaks of the snowy range, culminating in the huge mass of Dhaulgiri, some 8,230 meters above sea-level, are clearly in sight under favourable climatic conditions as far south as Gorakhpur itself. Below the outer hills is a dry boulder-strewn tract, corresponding to the Bhabar of Kumaun and Garhwal and here the bulk of the moisture contributed by the rainfall and the small streams is absorbed by the soil, to reappear through seepage in the damp and unhealthy tract, known as the terai. The latter comprises a belt some 16 km. in width, running along the northern borders of Maharajganj tahsil. It is extensively cultivated. In south of the terai in the same tahsil is a stretch of forest land which extends downwards in patches as far as the centre of the district. The average depth of water is about 4.5 meters. The plains form a level tract which slopes gently from west to south-east. The height above sea-level ranges from 107 meters in north-west to 93 meters in the south-east. Higher elevations appear at places where the general flat surface is broken by irregular ranges of sandhills. The most clearly defined ridge of this nature starts near Hapur in the Mahrajganj tahsil and runs in a winding course almost to Deoria. It presumably marks the long abandoned channel of the Gandak or some other river, since throughout its length it is bordered by a chain of depressions and jhils and in several places pebbles and boulders have been encountered in sinking shafts for wells. In contradiction to the high ridge are the low and often broad valleys of rivers known as kachhar. The valleys of the larger rivers are not only depressed well below the general level of the country but are of considerable breadth. Thus there is a wide area of low land which is inundated in years of heavy rainfall.

### **RIVER SYSTEM AND WATER RESOURCES**

The main system known as the Rapti system is confined to the west side of the Gorakhpur city. The valleys of the Ghaghra, the Rapti, the Rohini, and the Ami at any rate in their lower reaches, are at places broad and sufficiently depressed below the ordinary level of the district and confine their floods within the limits of the high banks on either side.

The drainage of the entire district, excepting that carried off by the Great Gandak is discharged into Ghaghra. In many places the drainage is imperfect especially in the basin of the Rapti and its affluents.

**Rapti** - The Rapti, originally Irawati and then corrupted as Ravati has its source in the outer ranges of Nepal. After traversing Bahraich, Gonda and Basti it enters this district between Talnatwa and Bersar and after forming the boundary for a few kilometers, flows in a south easterly direction. It again forms the boundary from Rigauli to Juinarayanpur village between Basti and Gorakhpur districts. Thereafter it moves southwards and traversing about 20 km. it turns towards east and touches Gorakhpur city and again takes a turn towards south-east. It then flows in an extremely tortuous course and flowing south-east it divides the district in the extreme south-east corner of tahsil Bansaon. The river is constantly carving out new channels for itself and occasionally shifts whole villages from one bank to another. Occasional floods leave behind them extensive deposits of silt and sand which are generally beneficial since the silt is of an exceedingly fertile nature, while even the sand after two or three years' exposure weathers into a loam capable of bearing good crops.

**Ghonghi** - The tributaries of the Rapti are numbers and important. The first to join the river on its left bank is the Ghonghi, which originates in the outer ranges of hills above the Nepalese terai and for some distance the mid stream of Ghonghi forms the international boundary between India and Nepal. Flowing in a south-westerly direction, it receives on its left bank two small terai streams called Danda and Dunri. Then it turns south and for some distance provides Basti boundary, flowing past Bridgmanganj. Subsequently, it splits into two channels, both of which unite with Dhamela at Sikri and Gerui near Rigauli respectively. It has a deep and well defined channel with a sandy bed and clear water. Though usually much swollen during the rains it shrinks rapidly and soon becomes fordable. The Dhamela is merely an old channel of the Rapti which receives the waters of the kunhra and other rivers of Basti terai, and after a course of some 15 km. through this district rejoins the original bed of the Rapti just above Karmaini.

**Rohin** - The next affluent of the Rapti is the Rohin, a stream of some magnitude which enters pargana Binayakpur from Nepal and after traversing pargana Haveli in a southerly direction, falls into the Rapti between Domingarh and the western extremity of Gorakhpur city. At first its banks are steep and the bed is formed of sand and problems, but on its entry in to pargana Haveli it loses these characteristics and approximates more closely to the ordinary type of river in the plains. The Rohin receives about 9 Km south-west of Sakhuani on its left bank, the Bagela, which is in turn fed by the Madrahi and other streams. The Piyas or Jharain enters this district at Thuthibari and is joined by the Malaun river rising near Lohrauli and Nadau Nala and other small water-courses before falling into the Rohin just above the crossing on the road between Pharenda and Mahrajganj. The river Balia rises near Mahrajganj and falls into Rohin near Jarlahia. The river Chillua takes its origin in tappa Katahra of pargana Haveli and is fed by the Tamar and some minor streams before passing into the Chillua Tal and then into the Rohin near Maniram. On the right bank the only affluent is a water-course called the Kalan which rises near Lehra and following southwards joins the Rohin in the north-east of Peggioanj.

**Tura and Gaura** :- The Tura is a small stream which rises in tappa Unit of pargana Haveli and flows southward through the Ramgarh forest to the east of Gorakhpur city till at the village of Jhangaha it joins the Gaura. The latter carries off the overflow from the Ramgarh and Narhai Tals, and the combined stream continue for a considerable distance parallel to the Rapti.

**Pharend Nala** :- Rising in the north of Pipraich flows southward almost parallel to the river Tura and finally joins Gaura in the south of Rajdhani. The name Pharend is derived from the thick growth of "Pharend" or wild Jamun trees along its course.

**Ami** :- The tributaries of the Rapti on its right bank of the Ami and Taraina. The former rises in the paragana Rasulpur in Basti district and enters this district near Rampur in paragana Maghar. Then it flows towards south-east falling into the Rapti near Sohgaora in paragana Bhauapar. It is a narrow and sluggish stream save in rains when its swollen water developed into the Amiar Tal. The spill from the Rapti during heavy floods enters the Ami valley, submerging the country as far west as the high right bank, save for two islands of bangar which always remain above the flood level. One stretches from Kalesar to Newas along the south side of the Basti road and the other lies on either side of the Azamgarh road from Hardia to Malaon.

**Taraina** :- The river takes its rise in the south of pargana Unaula and flowing in a south-easterly direction through Dhuriapar reaches the Bhenri Tal. Emerging from the eastern extremity of that lake it finds its way into the

Rapti by an almost direct route due east. During the hard weather it is an insignificant stream but during rains it assumes considerable dimensions.

**Ghaghra** :- The Ghaghra also known as Saryu and Dehwa, an accumulation of combined water of the Chauka or Sharda and the Kauriyala, which unite near Bahramghat in the Barabanki district. This is mighty river flowing over a wide and sandy bed. The deep stream forms the boundary between this district on the north and Azamgarh on the south. The river first touches Gorakhpur at Majhdip in pargana Dhuriapar and then flows towards east touching the market towns of Gola and Barhalganj. The bed of the river is flanked by steep and well defined banks but occasionally the water rises in heavy floods, inundating the lower land in the neighbourhood. When the river subsides after the rains, numbers sandbanks and islands appear in the channel, which becomes tortuous and in places shallow.

**Kuwana** :- Besides the Rapti the other direct affluent of the Ghaghra in this district is the Kuwana. This river has its source in the east of Bahraich and it flows through Gonda and Basti. It separates Gorakhpur district from the Basti district, and then passes through the west of pargana Dhuriapar to join the Ghaghra near Shahpur. In the portion of its course it has a sandy bed with fairly steep high banks.

**Great Gandak** :- This river takes its rise in the snowy range of Nepal and leaves the hill by the gorge near Tribenighat, about 16 km. north of the boundary of the district. This river, which is also known as the Naryani and in Nepal, as Saligrami flowing in the north-east of tahsil Maharajganj enters the Deoria district. The Great Gandak is a stream of the first magnitude and even on hot weather its volume is immense. On its first entry into the district the bed is stony and the water is cold and clear. The river is subject to violent and sudden floods, which cause extensive inundations of the forest tract Nepal and in this district.

**Choti Gandak Nadi** :- Rising in Nepal it flows southwards and enters this district at village Sitlapur. About a kilometer and a half south of this village it bifurcates into two branches, one branch running in a north-westerly direction and other continues on a southerly course as Choti Gandak and passed the Domakhand forest tract reaches Deoria district its south. Flowing in the same direction it forms the boundary between tahsil Maharajganj and tahsil Hata of district Deoria leaving this district in the extreme south-eastern corner of the tahsil Maharajganj.

**Lakes** :- Gorakhpur has a number of perennial lakes, formed in most cases in the abandoned channels of rivers, which have become blocked by the

accumulation of silt, or by the accumulation of water in deep natural depression. The important ones are being mentioned here.

**Ramgarh Tal** :- On the south-east of Gorakhpur city and the south side of the metalled road to the kasia in Deoria district is the Ramgarh Tal. It was formerly covered, save during the rains, with a dense growth of reeds, which was a menace to the health of the town and has since a large part of it been cleared off. An unsuccessful attempt was also made to drain off the water of this lake through a channel from the southern end into the Rapti. Ramgarh Tal is rich in fish and affords living to people in several villages on its banks.

**Narhai Tal** :- A few kilometers south-east of Ramgarh Tal a much smaller sheet of water living in the Kachhar of the Rapti is known as Narhai Tal. It is connected with the Ramgarh Tal by the Gaura river which carries off the excess water of both the lakes into the Rapti. This lake was formerly a channel of the Rapti. During summer it becomes dry and serves as grazing ground for cattle.

**Domingarh and Karmaini Tals** :- These lakes in the west of Gorakhpur city are formed by the overflow of the Rohin just before its confluence with the Rapti. The two lakes are separated by a mound which is completely submerged by water during high floods and the two, for all practical purposes, become one. During rains the water extends northwards from the railway embankment at Domingarh over a continuous stretch of about 11 Km. After the close of rains the water rapidly drains off into the Rapti and the lakes shrink to small dimensions.

**Nandaur Tal** :- About 9.6 km. south from the Gorakhpur lying close to the east of the Azamgarh road, is the Nandaur Tal. It is a perennial sheet of water. Its size is little effected by the rains. The water is clear and it is an inexhaustible source of fish.

**Amiar Tal** :- A few kilometers south of Nandaur Tal is Amiar Tal, formed by the flood waters of the Ami river which fill the whole of the Valley between Belipar on the north and Bansgaon on the south, both situated on ridges. The intervening depression during rains becomes a lake several kilometers in length terminating at the Tucker bandh. To the east of the bandh a second lake is formed known as the Bijra Tal. The water recedes quickly after the rains and the land thus exposed yields goods rabi crops.

**Bhenri Tal** :- This lake lies between the Rapti and the Ghaghra rivers in pargana Chillupar and is formed by the excess waters of the Taraina river which passes through the lake. In the dry weather it shrinks to small dimensions but during rains it becomes a large expanse of water. This lake is

however shrinking permanently owing to increasing accumulation of silt. A channel from the eastern extremity carries off the surplus water into the Rapti but during floods, the lake overflows its banks, submerging the entire neighbouring area.

**Chillua Tal** :- The Chillua Tal is formed by the overflow of the Chillua nala in pargana Haveli about 11 km. north of Gorakhpur. It is a long and somewhat narrow stretch of water shrinking into river near Maniram before joining the Rohin.

**Other Lakes** :- In the eastern part of the district there are many lakes such as Ramabhar Tal, Kusesar Tal, Chakahwa Tal and Dumrani Tal.

## **GEOLOGY**

The geology of the district exposes nothing beyond ordinary river borne alluvium which is not old. The mineral products are few and unimportant. The minerals of commercial value are the nodular limestone conglomerate known as kankar, brick and saltpetre. The last occurs principally in the south and south-east and is manufactured in a crude state in considerable quantities most of it being exported to markets of Bihar. In the Bansgaon tahsil kankar is most abundant and quarries are seen at many places. It is also extracted from some places in Mahrajganj tahsil. Lime is obtained by burning kankar. Brick clay is abundant everywhere and bricks are made all over the district. The soil in the district is light sandy or dense clay of yellowish brown colour. The sand found in the rivers is medium to coarse grained, greyish white to brownish in colour and is suitable for construction purposes.

## **Seismology**

In the earthquake zonal map of India the district lies in zone IV liable to moderate damage by earthquakes. Although no major earthquake occurred close to it, the tract being not far from the Great Himalayan Boundary fault, experiences the effects of moderate to great earthquake occurring there. The seismic intensity may not exceed VIII on the Modified Mercalli scale 1931. The forests are generally found in the northern portion of the district, though in the past they extended as far as to the south of Gorakhpur and along the Rapti in south-eastern part of the district.

About 55,235 hectares of land covered with timber and other trees and shrubs under the management of the forest department. Of this an area of about 20,720 hectares lies in tahsil Pharenda, about 30,175 hectares in tahsil Mahrajganj and about 4,340 hectares in tahsil Gorakhpur. The forest

area in the district under the control of the Gram Sabha is about 1,490 hectares of which 626 hectares are covered with timber trees and the remaining with other species of trees and shrubs. Of the timber forests tahsil Pharenda contains 206 hectares, tahsil Mahrajganj 409 hectares and tahsil Gorakhpur 11 hectares. The forest area having other trees and shrubs extends over 30 hectares in tahsil Pharenda, 549 hectares in tahsil Mahrajganj, 166 hectares in tahsil Bansgaon and 119 hectares in tahsil Gorakhpur.

The sal is the principal tree of the forest found in the district. The undergrowth in sal areas is very dense in the strips along the banks of nalas and streams, and is of evergreen shrubs and small trees. In the northern portion of tahsil Mahrajganj there is Domakhand forest tract. This has dense forests of medium to good height. The chief associates of the sal are asna (*Terminalia tomentosa*), Bahera (*Terminalia belerica*), Haldu (*Adina cardifolia*), phaldu (*Mitragyna parvifolia*), asidh (*Lagevstro emiaspeciosa*), tendu (*Diospyros tomentosa*), mahua (*Madhuca indica*), domsal (*Miliuds veluatina*), Jamun (*Syzygium cumini*), bhakmal (*Ardisia solancea*), Shisham (*Dalbergia sissoo*), semal (*Salmalia malabarica*), tum (*Cedrela toona*), dhak (*Buten monosperma*), neem (*Azadirachta indica*), amaltash (*Cassia fistula*), imli (*Tamarindus indica*), and teak (*Tectona grandis*).

The afforestation programme is being carried out in about 550 hectares annually. Sal and Teak were planted in about 300 hectares in 1973 and shisham, khair, semal, etc., in about 200 hectares. In addition, the forest department has carried out plantation of roadside avenues on national highway from Gorakhpur to Lucknow for about 23 Km.

There are narrow belts of grassy land along the Tura in Tilkonia and Ramgarh, along the Temar in north and south Banki, along the Chilwa in south Banki and Bhelumpur, along the Kalan and the Phulwaria in Bhari Basi Re. There is also a large grass land in the east of Nagwa forest block. These grassy tracts are known as manjhas.

**Groves** :- The total area under groves in the district in 1973 was 13,729 hectares. The largest grove area lies in tahsil Gorakhpur where it is 5,277 hectares. Of the other tahsils, Pharenda possess 2,673 hectares, Maharajganj 1,568 hectares and Bansgaon 4,211 hectares. The groves chiefly consist of mango, guava, jamun, aonla, lemon and mahua.

## **FAUNA**

The proximity of Nepal and the wide extent of forests are responsible for

presence of large number of wide animals in the district. The peculiar situation of the forests where they are nowhere more than 10 km. away from the village habitation makes the wild life prone to destruction. In the northern forests of Gorakhpur forest division tigers (*Panthera tigris*) are found in Nichlaul range. The population of tigers has of late increased in the division. Panthers (*panthera pardus*) are found in every range of the northern forests. Besides these cheetal (*Axis axis*), barking deer (*Muntiacus muntjak*), sambhar (*Cervusnicolor*), nilgai (*Boselaphus tragocamelus*) wild pig (*Sussecrofa*) and jackal (*Canis aureus*) are found in these forests.

In the southern forests of this division, which include Tilkonia, Banki, Pharenda and Pakri forest range, Jackal, wild pig, nilgai, cheetal, hare (*Lepus ruficandatus*) and squirrel (*Funamubulus palamrus*) etc. are found while cheetal and pig are quite common in Pakri range, they are not so in Tilkonia range where the wild life is getting a carce. The wild life in Doma block across the Narayani canal consists of Tiger, very few cheetal, para and nilgai. The other animals which are found in these forests are jungle cat (*Feels chaos*), leopard cat (*Felis bangalinsis*), monkey (*Macaca radiata*), and common red fox (*Valpes vulpes*).

**Birds** :- The birds of the district are similar to those of the adjoining districts. The chief game birds found are of several varieties of ducks, partridges and pigeons. Besides these the other varieties of birds which are commonly found in the district are peacock (*pavo cristatus*), quail (*Coturnix coturnix*), jungle fowl (*Gallus soneratti*), snipe (*Cappella gallinago*), parrot (*Psittaculaeupatria*), kite (*Milvus migrans govinda*), crow (*Corvus splendens splendens*), vulture (*Gyps bengalensis*), bulbul (*Molpaster cafer*), mynah (*Acridotheres tristis*), baya (*Ploceus philippinus philippinus*) or the weaver bird, sparrow (*passer domesticus indicus*) and bagula (*Eqret alva modesta*).

**Reptiles** :- Different varieties of the snakes and other reptiles are found everywhere in the districts especially in the rural areas. Some snakes are deadly e.g. the cobra (*Naja naja*), karait (*Bengarus caeruleus*) and ratsnake (*Ptyas mucusus*). The majority of snakes is non-poisonous, a few people die of snake bite almost every year. The other reptiles found in the district are crocodile (*Gavialis gangeticus*), moniter lizard (*Varanus bengalensis*) and other variety of lizard and python (*Python molurus*).

**Fish** :- Fish are found in the rivers, lakes and ponds of the district. The species which are commonly found in the district are rohu (*Labeo rohita*), karounch (*Labeo calbasu*), bata (*Labeo bata*), khursa (*Labeo gonious*), bhakur (*Catla catla*), nain (*Cirrihina mirgala*), raiya (*Cirrihina reba*), darhi (*Barbus sarana*), putia (*Barbus stigma*), parhan (*Wailagonia attu*), tengra (*Mystus aor*), tingan (*Mystus vitatus*), cheagna (*Ophicephalaus straitus*),

girai (*Ophicephalus gachuwa*), patra (*Notopeternus notopeternus*), Moi (*Notopeternus chitala*), mangur (*Clarias mangur*), singhi (*Heteropneustes fossilis*), chelwa (*chela bacaila*), belgagra (*Rita rita*), and gonch (*Bagarius bagarius*).

**Game-Laws** :- The game-law applicable to the district were governed by the wild birds and Animal protection (U.P. Amendment) Act 1934. It has been replaced by the Wild Life (Protection) Act, 1972 which made game-laws more stringent with a view to conserving wild life and preventing the extinction of certain species. The wolf, crocodile, gharial and peafowl have been declared protected species while certain restriction have been placed on shooting of wild pigs, nilgai and some other species. The punishment for infringement of the laws has been made more deterrent.

## **CLIMATE**

The district has a climate which is more equable than that of the adjoining districts in the west and the north. The climate of the northern portions of the district is conditioned to some extent by the proximity of the hills in the north and the terai swamps. The year may be divided into four seasons. The cold season from mid November to February is followed by the summer season from March to mid June. The period from mid June to the end of September is the south-west monsoon season and the October and the first half of November constitute the post-monsoon season.

**Rainfall** :- The district has four rain-gauge stations with record of three of them extending back to about 100 years. Pharenda station has rainfall data for past 29 years only.

The south-west monsoon usually arrives over the district by about the middle of June and withdraws by the end of September. The average rainfall of the district is 1393.1 mm. About 87 percent of the annual rainfall is recorded during the period June to September, July being the rainiest. The monsoon in the district generally advances from the south-west to the north-east. There is no large variation in the rainfall from year to year. In the 50 years period from 1901 to 1950 the heaviest annual rainfall which was 130 per cent of the normal was recorded in 1936, while the lowest annual rainfall was in 1907 when it amounted to 54 percent of the normal. In the same 50 year period, there were 14 years when the annual rainfall was less than 80 per cent of the normal. Two consecutive years of rainfall less than 80 percent of the normal occurred twice and three and four consecutive years of such low rainfall occurred only once each. The heaviest rainfall in 24 hours at any station in the district was 439.7 mm. recorded at Maharajganj on September 28, 1900.

A statement regarding the frequency of the annual rainfall in the district is given below for the period 1901-50 :

<b><u>Range in mm.</u></b>	<b><u>No. of Year</u></b>
701-800	<b>1</b>
801-900	<b>2</b>
901-1000	<b>4</b>
1001-1100	<b>5</b>
1101-1200	10
1201-1300	<b>5</b>
1301-1400	<b>8</b>
1401-1500	<b>4</b>
1501-1600	<b>5</b>
1601-1700	<b>3</b>
1701-1800	<b>1</b>
1801-1900	<b>2</b>

On an average there are 55 rainy days (i.e. days with rain 2.5 mm. or more) in a year, the variation in different parts of the district is not much.

**Temperature** :- The district has two meteorological observatories at Gorakhpur and Nautanwa. While the meteorological records at Nautanwa extend back to a few years only, those at Gorakhpur are available for a fairly long period. The data of Gorakhpur observatory may be taken as representative of the meteorological conditions in the district, except that the northern region of the district has a comparatively milder summer as indicated by the records at Nautanwa. From mid November there is a rapid fall in temperature. January is the coldest month with the mean daily maximum temperature at 22.8° C and the mean daily minimum temperature at 9.3° C. In association with cold waves in the wake of the western disturbances passing eastwards in the winter season, temperature tends to go down to a degree or two above the freezing point. Day temperature begins to rise rapidly after February. May is the hottest with mean daily maximum temperature at 38.4 C and the mean daily minimum at 25.1° C. With the advent of the monsoon by about the middle of June there is an appreciable drop in the day temperature, however, the nights continue to be warm. In September there is a slight increase again in the day temperature but the night temperature decreases after September. With the withdrawal of monsoon by the beginning of October it decreases progressively.

The maximum temperature recorded at Gorakhpur has been 48.3° C on may 26, 1958 and the minimum 1.7° C on January 15, 1933.

**Humidity** :- During the monsoon and the post monsoon seasons the relative humidities are high ranging between 70 and 85 per cent. In the winter months humidity decreases and in summer the air is comparatively drier.

**Cloudiness** :- In the south-west monsoon season skies are heavily clouded or overcast. During the rest of the year clear or lightly clouded skies prevails, except in winter when the district is affected by passing western disturbances and the skies become heavily clouded or overcast for short spells of two or three days at a time.

**Winds** :- Winds are generally light, slightly sharpening in the late summer and south-west monsoon months. Winds are mainly from the west in cold season. During the early part of the hot season easterlies begin to blow, but the westerlies predominate. Easterlies and north-easterlies prevail in late summer and monsoon season. In October, winds are light with large proportion of calms and the directions are mainly west, north-east or east.

**Special Weather Phenomena** :- Occasional thunderstorms occur in late summer and monsoon months. In association with spells of bad weather due to the passage of western disturbances, specially in the latter part of the winter season, some thunderstroms accompanied with hail occasionally occur. In the northern parts of the district fogs occur occasionally during the cold season.

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