BIDAR DISTRICT

CHAPTER I

GENERAL

BIDAR is the northern-most district of Karnataka. It is at present relatively a small district, being the remainder of a bigger one, parts of which were transferred to the neighbouring States with effect from the 1st of November 1956 when there was a States' reorganisation. Upto that date, the district was a part of the erstwhile Hyderabad State.

The Bidar area had a great past. It was the nucleus of some important royal dynasties which held sway in the ancient and medieval periods and witnessed several upheavals. In the 12th century A.D., it was the immediate scene of the rise of the *Sharana* (Veerashaiva) movement led by Basaveshvara, Allama Prabhu and others, which brought about a new epoch with far-reaching consequences in social, religious, literary, cultural and economic fields.

Origin of name

Bidar, the headquarters of the district, is an ancient town. There was a legendary association of the name 'Bidar' with 'Vidarbha' because of the similarity in the names. Now scholars have identified modern Berar (Varhad) with the ancient kingdom of Vidarbha. The name of the place appears to be derived from *bidaru* which means bamboo in English, and the place, which seems to have been noted for its bamboo clusters in the past, became known as 'Bidarooru' and then 'Bidare', 'Bidar', with reference to a place of this area, occurs in the 38th *sandhi* (chapter) of Lakkanna Dandesha's "Shivatatva Chintamani" which was composed in the 15th Century. 'Bidarooru', *i.e., bidaru* (bamboo) +*ooru* (town) is repeatedly referred to in "Veerasangayyana Choupada" written about 1700 A.D by Channamallesha of Umbalige of the adjacent Gulbarga area. Veerasangayya, the hero of the story, is mentioned as the native of 'Bidarooru' (*vide Prabuddha--Karnataka,* Vol. 49, No. 4 (1968), pp. 75-99). Bidar town has even now Veerasangayya's

tomb which is venerated. It thus appears evident that the original name of the place was ' Bidarooru '. In Kannada, the place continues to be sometimes called ' Bidare '. A traditional tale says that the history of the place goes back to the days of the Mahabharata and that the present name ' Bidar ' is a shortened form of 'Viduranagara ', *i.e.*, the city of Vidura who figures as a personage of great wisdom in that celebrated epic. The place is also associated with the legendary story of Nala-Damayanti. It is also said to have been founded by a prince named Vidura (*see* also Chapter XIX).

Location

The district of Bidar is situated between 17°35′ and 18°25′ north latitudes and 76°42′ and 77°39′ east longitudes and lies in the extreme north of the State. Its maximum length from east to west is 93.4 kilometres and from north-east to south-west 115.2 kilometres.

General boundaries

The district is bounded on the east by the Nizamabad and Medak districts of the Andhra Pradesh State, on the north and the west by the Nanded and Osmanabad districts of the Maharashtra State, and on the south by the Gulbarga district of the Karnataka State.

Area and population

The total geographical area of the district as per the provisional figures computed by the Survey of India is 5,451 square kms., while the reporting area of the district for land-utilisation purposes, as worked out by the State Department of Survey Settlement and Land Records and local bodies, is 5,458 square kms. The slight difference is due to the different methods employed by them in measuring the area. The population of the district according to the 1971 census was 8,24,059 (4,19,812 males and 4,04,247 females) as against 6,63,172 (3,36,480 males and 3,26,692 females) in 1961, thus registering a decennial growth rate of 24.26 per cent. In area, it occupies the seventeenth place among the 19 districts of the State, while in population also it has the same rank. It accounts for 2.84 per cent of the total area and 2.81 per cent of the total population of the State and its density of population works out to 151 per square km. getting the tenth place in this respect among the districts of the State (as in 1971).

History of the District as an administrative unit

In the third century B.C., the dominions of the great Maurya king Ashoka had included the whole of the Deccan, reaching out to the Chitradurga area in further south where some of his edicts were discovered. After the Mauryas, the Satavahanas established their suzerainty over the Deccan. The next dynasty of great importance was that of the Chalukyas of Badami who rose to power in the sixth century A.D. They held sway over extensive regions south of the river Narmada. About the middle of the 8th century, the Chalukyas were displaced by the Rashtrakutas who reigned for over two centu-

ries with their capital at Manyakheta, now called Malkhed, in the neighbouring district of Gulbarga. In 973 A.D., the Chalukyas regained their sovereignty and ruled with their capital at Manyakheta at first and then at Kalyana (now called Basavakalyan). They were succeeded for a few years by the Kalachuryas who were the feudatories of the Chalukyas and they too had their capital at Kalyana. After their short-lived regime ended about 1184 A.D., the Chalukyas reobtained a semblance of power and survived upto 1200 A.D.

Thereafter, the territory was overrun and occupied by the Sevunas (Yadavas) of Devagiri. They came into conflict with the Hoysalas of Dorasamudra and the Kakatiyas of Warangal. In 1294 A.D., Alaud-din Khilji, the ambitious nephew of Jalalud-din (the Sultan of Delhi), carried out an unauthorised military expedition against the Sevunas and subdued them. In 1296 A.D., he killed his uncle treacherously and proclaimed himself king. In 1318 A.D., the Sevuna ruler raised the banner of revolt which was crushed and the rule of his dynasty was eliminated. The Kakatiyas of Warangal were suppressed and deprived of their power in 1323 A.D. by Muhammad-bin-Tughlaq and the entire Deccan including the Bidar was annexed to his kingdom. About the middle of the 14th century, the officers of the Sultan stationed in the Deccan rebelled and this resulted in the establishment of the Bahamani dynasty in 1347 A.D. at Gulbarga. There was frequent warfare between the Bahamanis and the Vijayanagara kingdom. About 1429 A.D., the Bahamanis shifted their capital to Bidar which was strategically stronger and had a better climate. In 1430 A.D., Ahmad Shah Bahamani took steps to develop the city of Bidar, and its fort was rebuilt. After the break-up of the Bahamani kingdom in 1527 A.D., Bidar became the capital of the Barid Shahis who exercised power upto about 1619 A.D. On the conquest of the Deccan by Aurangzeb in the 17th century, the Bidar area became a part of the Mughul empire. Asaf Jah, a Mughul general, was appointed the Subedar of the Deccan in 1713 A.D. He had the title of "Nizam-ul-Mulk" and founded the house of the Nizams of Hyderabad. The Hyderabad State ruled by this dynasty, included the Bidar area also and its rule lasted upto 1948.

Territorial adjustments

Prior to 1905, the Bidar district consisted of the taluks of (1) Bidar, (2) Kohir, (3) Janawada, (4) Aurad, (5) Udgir, (6) Ahmedpur and (7) Nilanga. The Janawada and Ahmedpur taluks formed parts of the *Sarf-e-Khas* Estate (the crown lands). Their administration was supervised by the Government and the revenue was made over to the Nizam as his personal income. There were also *Paigah* and *Jagir* villages of Vikhar-ul-Umra, Asmanjahi,

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Khurshidjahi, and Kalyani and Devni Estates. Their hereditary chiefs administered them under the over-all control and supervision of the State Government. In 1901, the total extent of the district was 4,168 sq. miles (10,795 sq. kms.) with 1,457 villages including 831 *Jagir* villages. In 1905, when the Gulbarga Division was formed, the Bidar district was included in it. In that year, the Kohir and Aurad taluks were abolished and their areas were merged in Bidar and Janawada taluks respectively. Consequently, the district comprised five instead of seven taluks. In 1922, the Gulbarga Division was abolished and seven years later, *i.e.*, in 1929, it was restored, and continued until 1948, when it was again done away with.

Under the Hyderabad Jagir Abolition Act of 1950, the district was reconstituted with the nine taluks of (1) Bidar, (2) Bhalki, (3) Humnabad, (4) Aurad, (5) Nilanga, (6) Ahmedpur, (7) Udgir, (8) Zahirabad and (9) Narayanakhed. As a result, the area of the Janawada taluk was merged in the adjoining taluks of Bidar, Aurad and Bhalki. The Bhalki, Aurad, Humnabad, Zahirabad and Narayanakhed taluks were newly formed out of the ex-*Paigah* and ex-*Jagir* villages of Vikar-ul-Umra, Asmanjahi, Khurshidjahi, Kalyani and Devni Estates. With the reorganisation of States on the 1st of November 1956, the district was reduced to four taluks, namely, Bidar, Bhalki, Humnabad and Aurad, as the Zahirabad and Narayanakhed taluks were transferred to Andhra Pradesh, and Udgir, Ahmedpur and Nilanga taluks were included in the then Bombay State. In 1956, the total extent of the district was 5,369.3 sq. kms. The Bidar district became a part of the Gulbarga Division again when on the 1st of November 1956, a new Division with Gulbarga as its headquarters was formed including therein the entire area which came from the ex-Hyderabad State into the new Mysore State (which was later renamed Karnataka). There were only four taluks in the district upto 1965 when a new taluk was formed with Basavakalyan as its headquarters. At this time, several changes were made in the territorial jurisdiction of taluks except in the case of the Aurad taluk. They were as indicated below :

(1) *Basavakalyan taluk.*—This taluk was formed by the transfer of 89 villages and Kalyana (now called Basavakalyan) town from Humnabad taluk and 25 villages from Bhalki taluk.

(2) *Bhalki taluk.*— From this taluk, 25 villages were transferred to the new Basavakalyan taluk, 12 villages were transferred to Humnabad taluk and one village by name Aliabad was included in this taluk by transfer from Bidar taluk.

(3) *Bidar taluk.*— Twenty-two villages of this taluk were transferred to Humnabad taluk and one village (Aliabad) to Bhalki taluk.

(4) *Humnabad taluk.*— From this taluk, 89 villages and Kalyani (now called Basavakalyan) town were transferred to the new taluk of Basavakalyan. Further, 22 villages from Bidar taluk and 12 villages from Bhalki were transferred to this taluk. (*see* also General Appendices).

Since 1965, there have been five taluks, namely, Aurad, Basavakalyan, Bhalki, Bidar and Humnabad. The reporting area for land utilisation purposes (as worked out by the State Department of Survey Settlement and Land Records and local bodies) of the five taluks, the number of villages in each taluk and the population of each taluk (as in 1971) are given in the following table:

Sl. No.	*Name of taluk*	*Area in square kms.*	*No. of inhabited villages*	*Population as per 1971 census*
1	Aurad	1,228.6	147	1,43,681
2	Basavakalyan	1,202.1	111	1,74,700
3	Bhalki	1,113.8	121	1,56,443
4	Bidar	925.3	131	1,90,849
5	Humnabad	988.2	81	1,58,386
	Total	5,458.0	591	8,24,059

All the five taluks constitute a revenue Sub-Division with an Assistant Commissioner in charge of it. The taluks are sub-divided into revenue circles (*hoblis*), and there were 15 such circles till the formation of the Basavakalyan taluk in 1965. Now there are 20 revenue circles, each taluk having six such circles. The subjoined statement gives the number and names of the previous and present revenue circles under each taluk:

Sl. No.	*Taluk*	*As in 1965 (before changes)*		*As in 1975*	
		No. of Circles	*Names of Circles*	*No. of Circles*	*Names of Circles*
1	2	3	4	5	6
1	Aurad	3	Aurad Shamheli Torna	6	Aurad Santhpur Chintaki Kamalnagar Kushnur Dabka

1	2	3	4	5	6
2	Basavakalyan		(Taluk newly formed in 1965)	6	Basavakalyan Rajeshwar Matala Mudbi Kohinoor Hulsoor
3	Bhalki	4	Bhalki Halbarga Hulsoor Kumarchincholli	6	Bhalki Halbarga Khatak Chincholli Lakhangaon Nittur Saigaon
4	Bidar	4	Bidar Janawada Madaknalli Nirna	6	Bidar North Bidar South Bagdal Janawada Kamthana Manhalli
5	Humnabad	4	Humnabad Chitaguppa Kalyani Ladwanti	6	Humnabad Bimalkheda Chitaguppa Dubulgundi Hallikhed (B) Nirna
	Total	15		30	

Topography

Natural divisions

The entire district forms a part of the Deccan trap and is made up mostly of solidified lava. The tropical soil found here proceeds from compact hard black basaltic rocks. The northern part of the district is characterised by expanses of level, treeless surface, punctuated here and there by flat and undulating hillocks, black soil, basaltic rocks and some lower belts following the main rivers. The southern half of the district is a high plateau about 715 metres above the sea level and is well drained. The average elevation of the district is between 579.5 to 610 metres above mean sea level. Alluvial deposits are also normally found along the banks of the Manjra river and its main tributaries. It may be said that the district has broadly two natural divisions, namely, red soil belt and black soil belt.

Water Resources

Rivers

The district falls under two distinct river basins—the Godavari basin covering about 4,411 square kilometres (1,703 square miles) of area, of which the Manjra river basin covers 1,989 sq. kms. of area and the Karanja river basin 2,422 sq. kms. and the Krishna

basin covering about 585 sq. kms. (226 sq. miles) of area of which the Mullamari river basin covers 249 sq. kms. and the Gandori-*nala* basin 336 sq. kms. The main river of the district is the Manjra which is a tributary of the Godavari. The Karanja, which is a tributary of the Manjra, is another important river of the district. The rivulets flowing in the district are the Mullamari, the Manik Nagar-*nala*, the Chulki-*nala*, the Madhura-*nala*, etc. None of them is large enough for navigation. The seasonal floods are not so intense as to cause any havoc.

Manjra river

The Manjra rises in the Balaghat range of hills in Bhir district of Maharashtra State at an altitude of 823 metres above mean sea level and flows in a south easterly direction upto Sangareddy district of Andhra Pradesh and thereafter runs in a northerly direction and joins the Godavari. The total distance traversed by this river is about 700 kms. of which a length of about 167 kms. is in Bidar district. The river enters this district near Tugaon Halsi village of Bhalki taluk and leaves the district at Chillergi village of Bidar taluk. The Manjra is of vital importance to the arid region of Bidar district through which it runs forming a boundary for the Aurad taluk in the north and for the Bhalki and Bidar taluks in the south.

Karanja river

The Karanja takes its birth near Kohir village of Zahirabad taluk of Sangareddy district of Andhra Pradesh. It enters the district near Bhangoor village and joins the Manjra near Narda-sangam village in Bhalki taluk. The river flows from the south-east to the north-west through the taluks of Bidar, Humnabad and Bhalki. The distance covered by this river in Bidar district is about 80 kms. Across the Karanja river, a dam is being constructed near Byalhalli, a village about 29 kms. from Bidar town on the Bidar-Gulbarga road.

Mullamari river

The Mullamari rises near Matala village in Basavakalyan taluk in Bidar district and flows from north-west to south-east direction for a length of 46.50 kms. in Bidar district. Thereafter, it flows in Gulbarga district and then joins the Kagna river, a tributary of the Bhima which is a major tributary of the Krishna river. In order to harness the waters of this river, a medium-sized irrigation project is proposed at Kherda (B) in Basavakalyan taluk for providing irrigation facilities in parts of Bidar and Gulbarga districts.

Manik Nagar-nala

The Manik Nagar-*nala* is a tributary of the Karanja river in the Godavari basin. It has its origin near Gunatirthawadi in Basava-kalyan taluk. It flows from west to east for a length of 40 kms. from its origin, till it joins the Karanja river. A medium sized irrigation project is proposed between Humnabad and Hudgi for providing irrigation facilities from this *nala*.

Chulki-nala

The Chulki-*nala* is a tributary of the Karanja river in the Godavari basin. It has its origin near Ramatirthawadi village of Basavakalyan taluk. It flows for a distance of about 40 kms. from west to north till it joins the Karanja near Inchur village of Bhalki taluk.

Madhura-nala

The Madhura-*nala* is a tributary of the Karanja river in the Godavari basin. It has its origin near Khanapur village in Bhalki taluk. It flows in the south-east direction and joins the Karanja near Barur village. The total length of this *nala* within the confines of the district is about 40 kms.

Hallikhed-nala

The Hallikhed-*nala* originates near Gorta (B) village in Basavakalyan taluk. It flows for a length of about 32 kms. in east-ward direction in Basavakalyan and Humnabad taluks and joins the Manik Nagar-*nala* near Markhal village of Humnabad taluk.

Springs

There are some natural springs in the vicinity of Bidar town, called Nanak-*Jhira*, Narasimha-*Jhira* and Papanash. All these three places are looked upon as sacred by the devout who believe that their waters cure some physical ailments also.

Mineral Resources

Geology

The district is entirely covered by the Deccan-trap flows of tertiary period. The Deccan traps are composed of horizontal flows of basaltic lava. They generally form flat-topped hillocks and terrace-like features. The physical characteristics of individual flows show considerable variations. Some flows are hard and massive, while others are weathered, soft and friable. This character has resulted in a terraced landscape, suddenly ending in steep escarpment. The traps are seen generally 618.7 metres above mean sea level. They are jointed and show characteristic spheroidal weathering, leaving massive hard cores. Columnar jointing is predominantly developed in these rocks, besides horizontal joints which impart to the rock a bedded appearance. The top layers of the Deccan trap in parts of Bidar and Humnabad taluks are altered to reddish vesicular laterite, forming extensive undulating plateau.

Laterite

Laterite, in Bidar, is generally seen 618.7 metres above mean sea level. It overlies the Deccan traps generally from 18 to 24 metres in thickness. It is highly porous, soft and can be cut into blocks and dressed in the form of bricks. It is this property which has given it the name 'Laterite' (in Latin, *later* means a brick). Many of the buildings in Bidar, Humnabad and Basavakalyan taluks are built with laterite. The quarried rock darkens on

exposure and develops a glaze of limonite. The hard compact variety grades downwards into comparatively soft yellow brown laterite. The cavities in the horizon are filled with clay material ranging in colour from buff to grey. The soft yellow brown laterite grades downwards into variegated clays and lithomarge. Certain section in this zone contains streaks and pockets of white clay.

The laterite, on account of its high porosity, functions as reservoir rock. A good percentage of rain seeps underground and gets stored in the underlying clay horizons. On account of the highly porous nature of the rock, the ground-water level is deep and wells have to be sunk to depths of 21.34 to 24.38 metres to tap the water-level and to obtain sufficient quantities. Natural springs too occur at the base of the laterite scrap.

Minerals

The Bidar district is poor in economic or industrial minerals. The minerals found in the area are bauxite, kaolin and red ochre. Some building materials are also found in the district.

Bauxite

A deposit of highly siliceous bauxite clay, containing about 35 to 40 per cent alumina, has been located about three kms. to the south of Basavakalyan. Similar occurrences are noticed to the south of Mankhed of Basavakalyan taluk, west of Chatnalli, south-west of Atwal and Kamthana villages of Bidar taluk. The deposit at Mankhed extends over a length of 400 metres and its thickness is about five metres. Occurrence of aluminous laterite is found near Sastapur, Atlapur, Talbhog, Nirgudi, Narayanapur and Tipranth. The deposits are found to occur in contours between 620 to 640 metres and occur in patches. The thickness of the individual patches does not exceed three metres.

Kaolin

A large deposit of kaolin is located near Kamthana village. The deposit occurs in narrow patches, beneath a laterite capping of 12 to 18 metres. The clay bed is about one metre in thickness and covers an area of fifty hectares. About 25,000 tonnes of good kaolinic clay are estimated to be available from the area. The clay is white in colour, free from gritty material and exhibits good plasticity. The deposit is worked by the holder of a mining lease and the annual production is 800 to 1,000 tonnes of white clay. Similar clays are located near Rajeshwar, Rajola and Kankatta villages.

Red Ochre

Red ochre deposits are found near Sirsi and Aurad villages, situated about fifteen kms. to the west of Bidar town. The deposits occur in the form of beds and are found beneath a thick capping of laterite, ranging in thickness from eight to ten metres. The red ochre in both the localities is of good quality and the one near

Aurad is better than that of Sirsi area. The ochre is worked by the local villagers for colour washing of floors and walls.

Building materials

Hard massive trap rock and laterite constitute the chief building stones of the district.

Earth tremors

Seismologically, the district lies in an area of lower intensity when compared to the extra peninsular India. As per the available information, two tremors have been recorded in the district. A shock of IV MM intensity and 3.7 magnitude was recorded and felt at Humnabad in 1934. Another shock of IV MM intensity and 3.7 magnitude was felt in October 1956 at Bhalki. Apart from the above recorded tremors, very feeble earth tremors were experienced around Halbarga village in Bhalki taluk. These tremors, which were probably rated at III and IV MM intensity sealed, were felt between 14th October and 6th November 1956. During this period, rumbling sounds were heard. Even though the district rests on hard, dense and compact basaltic rock, it is not completely aseismic. The area has experienced very feeble and localised tremors which were few and far in between.

Ground water

Ground water is present under the grounds in the voids of rocks and soil. The development of some areas in this district for industrial and agricultural purposes depends, to a considerable extent, on systematic exploitation of ground water. A separate Ground Water Cell was created in the State Department of Mines and Geology in 1960 with a view to carrying out systematic studies and to collect basic data. Ground water occurs in the district under water-table conditions and under sub-artesian conditions and is recharged mainly through rainfall. Rain water percolates rapidly in laterite regions and gets stored above the hard Deccan traps.

Generally, the water-table in the district ranges from three to 12 metres below surface. The fluctuation of water-table is more in laterite areas where the water-table goes upto 18 metres, but during the rainy season, it would be from three to five metres and the wells in some low-lying areas may overflow. The water-table in basalt areas ranges from three to ten metres. There is a considerable number of wells (both irrigation and drinking) in the district. In March 1974, there were 13,012 wells in the district, of which there were 1,187 in Aurad, 3,044 in Basavakalyan, 1,245 in Bhalki, 3,321 in Bidar and 4,215 in Humnabad taluks.

Recharge and discharge

The main source of recharge is through precipitation and to some extent through the influent streams during floods and through water used for irrigation. It is estimated that 10 per cent except in Aurad and Bhalki taluks where it is only 5 per cent of the annual

rainfall would contribute to ground-water recharge, because a large portion is lost through surface run-off, and percolation is reduced since the black soil overlies the basalt rock. The discharge takes place by drawal of water from wells in various ways. Figures of annual recharge and discharge and of feasible additional wells are given below :

Sl. No.	*Name of taluk*	*Total extent in sq. kms.*	*Annual Recharge in mm^3*	*Annual Discharge in mm^3*	*Scope for additional no. of wells*
1	Aurad	1,228.6	70.95	2.86	2,600
2	Basavakalyan	1,202.1	65.65	39.37	1,550
3	Bhalki	1,113.8	59.40	9.06	1,660
4	Bidar	925.3	78.98	48.04	1,600
5	Humnabad	988.2	87.50	41.80	1,800
	Total	5,458.0	362.48	141.13	9,210

Bore wells

There were only three bore wells till 1971. By 1975, there were about 376 bore wells sunk mostly for purpose of domestic water supply. The taluk-wise number of bore wells are given below :—

Sl. No.	Taluk	No. of bore wells
1	Aurad	40
2	Basavakalyan	106
3	Bhalki	70
4	Bidar	80
5	Humnabad	80
	Total	376

Only a few bore wells are being used for agricultural purposes. The bore wells sunk were taken to depths ranging from 20 to 70 metres. There are a few bore wells which are yielding more than 5,000 gph. and the highest yield recorded is 20,000 gph. and 17,000 gph. The bore well sunk at Hallikhed (K) is in the yield of 20,000 gph. (1 gallon : 4.54 litres), and is of artesian condition and is overflowing. The over-flow is about 3,000 gallons per hour. There is good scope for tapping ground water by deep bore wells in the district.

Forests

The existing forests of Bidar district are all man-made without any exception. The land was very fertile centuries ago and there were good forests and big game. Royal hunters used to frequent

this area for big game hunting. Ravages of wars and continuous tramplings by men and animals as also dumping of huge quantities of ammunition and other poisonous material on the ground depleted the flora as also the fauna. In the past, the forests were also gradually destroyed by the people in their persistent efforts to clear the lands for cultivation of foodgrains and for grazing of their cattle and by felling trees for fuel and timber. The top soil being shallow in most parts of the district on account of lateritic formations, the flora of higher order cannot easily thrive. Selecting the best of the available pockets spread in various parts of the district, the Forest Department is making efforts to recapture the lost green glory as far as possible.

The forests in Bidar district as they exist today are of the mixed dry deciduous type, consisting of large stretches of open scrub jungle. The rainfall is sometimes erratic and inadequate in the area. The district has dry tropical climate. The conditions of drought during some years and extreme heat of the summer season in certain parts make profitable and active regeneration of forests very difficult. The total forest area of the district, as in 1971, was 13,825.8 hectares. Of this, Humnabad taluk had the largest area of 6839.3 hectares, followed by Bidar 4320.8 hectares, Basavakalyan 1727.2 hectares, Bhalki 817.1 hectares and Aurad 121.4 hectares. According to the Divisional Forest Officer, Bidar, about 3,238 hectares of land was stated to have been brought under forests upto the end of 1974-75 through afforestation of waste lands and the like programmes. A separate Forest Division was formed for Bidar district in 1974 and some parts of Chincholli taluk of Gulbarga district was included in it. The revenue of this Forest Division for the year 1974-75 was Rs. 2,37,367.

Flora

The weeds and climbers found in the forests of the district are not of much economic value. Some different types of grass which grow in the area are not of nutrient type for the cattle and, therefore, are more useful for thatching roofs of huts and houses. The minor forest produce consists of *tupra* (*beedi*) leaves, Rousa-grass, *Seetaphal*, honey and wax, tamarind and mango fruits. The most common shrubs are *bikke* (Gardenia gummifera, Linn), *gotti* or *challe* (Zizyphus xylopyra, Willd) and *Seetaphal* (Anona squamosa, Linn) and they are mostly used for fencing the fields. The following are the main tree species found in the district, all of which have been classified generally as belonging to the third class.

Acacia arabica, Willd (*Jali* or *Babul*).—The wood of this tree yields a gum and is of pale-red colour, turning darker on exposure.

The wood becomes very durable when seasoned in water. It is used for preparing spokes for wheels of country-carts, rice-pounders and ploughs.

Tamarindus indica, Linn (*Hunase*).—The tamarind fruit is mostly used in food preparations. The seeds are also roasted and eaten. The heartwood of the tree is very hard and durable. The wood is used as fuel and for preparing cart-wheels, etc.

Butea frondosa, Roxb (*Muttuga*).—A kind of red gum is obtained from the bark of this tree. The flowers are used to prepare a red juice used in Holi festival. The wood of this tree is of little value.

Anogeissus latifolia, Wall (*Dindiga*).—The tree is mostly used as fuel and for making charcoal. The heartwood of the tree is small, purplish-brown and very hard. The sapwood is yellowish in colour. The wood has a tendency to split while seasoning. The gum of this tree is used by calico printers for dyeing purposes.

Hardwickia binata, Roxb (*Kamara*).—This is one of the most durable timbers used in construction work. The heartwood is close-grained, dark and ringed with purple. The young shoots and leaves are used as fodder.

In addition to the above species, *huragalu* (Chloroxylon swietenia, DC.), *bandarike* (Dodonaea viscosa, Linn), *ala* (Ficus benghalensis, Linn), *arali* (Ficus religlosa, Linn), *atti* (Ficus glomerata, Roxb) and *shisham* (Dalbergia sissoo, Roxb) are also found in the district to a little extent. The scientific names and local names of the flora found in the district are given below :

Scientific name	*Local name*
Acacia arabica, Willd	Jali or Babul
Anogeissus latifolia, Wall	Dindiga
Anona squamosa, Linn	Seetaphal
Butea frondosa, Roxb	Muttuga
Chloroxylon swietenia, DC.	Huragalu
Dalbergia sissoo, Roxb	Shisham or Biridi
Dodanaea viscosa, Linn	Bandarike
Diospyros melanoxylon, Roxb	Tupra
Ficus beng(h)alensis, Linn	Ala
Ficus glomerata, Roxb or Ficus racemosa, Linn.	Atti
Ficus religiosa, Linn	Arali
Gardenia gummifera, Linn	Bikke
Hardwickia binata, Roxb	Kamara
Mangifera indica, Linn	Mavu
Tamarindus indica, Linn	Hunase
Zizyphus-Xylocarpa, Willd	Challe

FAUNA

The scantiness of forests accounts for almost a total absence of denizens of the forests that can be said to belong to the big game variety. There is no tiger, but an occasional leopard may be seen far from human habitation in Khanapur jungle. Wolves are found in the craggy portions of the undulating forest. Curiously enough, there are not many jackals. As many as 30 varieties of bats are found in the district. Herds of small deer appear during winter. There are past records of the occurrence of four horned antelopes in the district but they are not existing at present. *Simpi-billis* are found near Kasimpur village in Bidar taluk. Among the game birds, partridge and quail may be seen near the tanks in winter. Along the rivers and streams may be seen wild ducks, teal and water fowl.

The more important among the domesticated animals are the buffalo, the cow, the sheep, the goat and the camel. The milk yield of the cattle is fairly heavy. The camel serves as a mode of transport at many places in the district. There is some population of horses and ponies of an indeterminate breed. The poultry consists mostly of the country variety. The Animal Husbandry Department has taken some steps for propagation of improved breeds like White Leghorn and the Rhode Island Red. The scientific names and their English equivalents of the fauna found in the district are given below :

Scientific name	*English equivatent*
Mammals	
Bandicota bengalensis (Gray)	Lesser bandicoot rat
Bandicota indica (Bechstein)	Large bandicoot rat
BOS indicus	Cow
Bubalus bubalis	Buffalo
Camelus dromedarius	Camel
Canis aureus (Linnaeus)	Asiatic jackal
Canis lupus	Wolf
Capra (Sp)	Goat
Cervus (duvauceli devauceli (bara singha)	Deer
Chiroptera	Flying mammals (bats)
Cuon alpinus (Pallas)	Dhole, red dog or Indian wild dog
Equus caballus	Horse
Felis chaus (Guldenstaedt)	Jungle cat
Funambulus palmarum (Linnaeus)	Indian palm squirrel
Funambulus Pennanti (Wroughton)	Northern palm squirrel
Lepus nigricollis (Cuvier)	Indian hare, black-naped hare
Manis crassicaudata (Gray)	Indian Pangolin

Scientific name	*English equivalent*
Melarsus ursinus (Shaw)	Sloth bear
Mus booduga (Gray)	Little Indian field mouse
Mus musculus (Linnaeus)	House mouse
Mus Platythrix (Bennett)	Indian brownspiny mouse
Ovis (Sp)	Sheep
Panthera pardus (Sp)	Leopard
Presbytis entellus (Dufresne)	Langur
Rattus rattus (Linnaeus)	Common house rat
Suncus etruscus (Savi)	Savi's pygmy shrew
Suncus murinus (Linnaeus)	House shrew
Sus scrofa (Linnaeus)	Wild boar
Tatera indica (Hardwicke)	Indian gerbil
Vandeleuria oleracea (Bennett)	Indian long-tailed tree mouse
Reptiles	
Calotes versicolor (Daudin)	Common garden lizard
Hemidactylus brooki (Gray)	Common house gecko
Hemidactylus giganteus (Stoliczka)	Giant gecko
Typhlops braminus (Daudin)	Common blind snake

Wild life preservation

There are no wild life sanctuaries, bird sanctuaries or national parks in the district. Some steps have been taken by the Forest Department for the preservation of wild life. No shooting is permitted inside the reserved forests and the movements of " trigger-happy " persons outside the reserved forests are also watched in order to prevent poaching. The improvement of the growing stock inside the reserved forests also helps the wild animals to thrive there.

CLIMATE

The climate of this district is characterised by general dryness throughout the year except during the south-west monsoon season. The summer season is from about the middle of February to about the first week of June. This is followed by the south-west monsoon season which continues till the end of September. The months of October and November constitute the post-monsoon or retreating monsoon season. The cold season is from December to the middle of February.

Temperature

There is a meteorological observatory in the district at Bidar. The records of this observatory may be taken as representative of the meteorological conditions prevailing in the district. Temperature begins to decrease from about the end of November. December is the coldest month with the mean daily maximum temperature at 27.3°C (81.1°F) and the mean daily minimum at 16.4°C (61.5°F).

during the cold season, temperatures may sometimes go down to about 3°C (37.4°F). From about the middle of February, both day and night temperatures begin to increase rapidly. May is the hottest month with the mean daily maximum temperature at 38.8°C (101.8°F) and the mean daily minimum at 25.8°C (78.4°F). During the summer, on some days, the day temperature rises above 40°C (104.0°F). The heat is sometimes very trying. However, there is welcome relief when thunder showers occur in the afternoon on some days. With the advance of the south-west monsoon into the district by about the first or second week of June, the day temperatures go down appreciably. With the withdrawal of the south-west monsoon by about the first week of October, there is a slight rise in the day temperature, but night temperature steadily decreases. After October, both day and night temperatures decrease progressively. The highest maximum temperature recorded at Bidar was 43.3°C (109.9°F) on the 8th of May 1931 and the lowest minimum was 2.8°C (37.0°F) on the 16th of December 1919.

Humidity

Relative humidities are high during the south-west monsoon season being between 65 and 75 per cent. The summer is the driest part of the year, when the relative humidities in the afternoons are between 30 and 40 per cent.

Cloudiness

During the south-west monsoon season, skies are generally moderate to heavily clouded and overcast on some days. Cloudiness decreases during the post-monsoon season. During the rest of the year, the skies are mostly clear or lightly clouded.

Winds

Winds are generally moderate in strength with some increase in force during the latter half of the summer season and the monsoon season. Winds blow mostly from directions between south-west and north-west in the south-west monsoon season. In the post-monsoon season, winds blow predominantly from directions between north and east During the cold season, winds are variable in directions, winds between north and west directions being rare During the summer, they are from the south-west to north-west in the mornings, while they are from directions mostly between north and east in the afternoons.

Special weather phenomena

While cyclonic storms seldom pass through the district, some of the post-monsoon storms from the Bay of Bengal become diffuse after crossing the coast and in their passage westwards affect the district and its neighbourhood causing heavy rain. Thunderstorms occur frequently during the summer season and some of them are accompanied with hail. Rain at the period of the onset and withdrawal of south-west monsoon is often accompanied with thunder.

RAINFALL

The details of the rainfall are given in tables I. II. and III. The average annual rainfall at Bidar is 907.5 mm (35.73″). About 81 per cent of the annual rainfall is received during the period from June to September, September being the rainiest month. Considering the general rainfall pattern in the region, it is seen that rainfall in the district generally increases from the south-west towards the north-east. The variation in the rainfall from year to year is large, and the district is liable to droughts. During the period from 1901 to 1950, the highest annual rainfall which was 177 per cent of the normal occurred in 1949, while the lowest which was only 48 per cent occurred in 1929. Annual rainfall less than 80 per cent of the normal occurred in twelve years out of 45 years for which data are available during the period (1901-1950). During the same period, two and three consecutive years of such low rainfall occurred once each at Bidar. It will be seen from table II that the annual rainfall at Bidar was between 700 and 1200 mm (27.56″ and 47.24″) in 28 years out of 45. On an average, there were 52 rainy days (*i.e.*, days with rainfall of 2.5 mm - 10 cents - or more) in a year at Bidar during the period. The heaviest rainfall in 24 hours recorded at Bidar was 245.9 mm (9.68″) on 31st July 1955.

TABLE I

Normals and extremes of Rainfall in Bidar District (1901 to 1958)

Station	*No. of years of data*		*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Annual*	*Annual rainfall as % of normal and year***		*Heaviest rainfall* *in 24 hours*	
																Highest	*Lowest*	*Amount (mm)*	*Date*
Bidar	46	a	5.6	9.4	11.9	25.4	25.1	126.5	206.3	166.6	238.8	59.4	26.7	5.8	907.5	177 (1949)	48 (1929)	245.9	July 31 1955
		b	0.5	0.8	1.1	2.1	2.4	7.4	11.6	10.1	10.7	3.6	1.6	0.4	52.3				

(*a*) Normal rainfall in mm. (*b*) Average number of rainy days (days with rain of 2.5 mm. or more).

* Based on all available data upto 1958. ** Years are given in brackets.

Source : The Deputy Director General of Observatories (Climatology and Geophysics), Poona.

TABLE II

Frequency of Annual Rainfall in Bidar District (Data 1901–1950)

Range in mm.	*No. of years*	*Range in mm.*	*No. of years*
401—500	1	1101—1200	3
501—600	3	1201—1300	5
601—700	6	1301—1400	1
701—800	6	1401—1500	0
801—900	7	1501—1600	0
901–1000	9	1601—1700	1
1001—1100	3		

TABLE III

Statement showing the annual rainfall recorded in various raingauge statons in Bidar district during the period from 1951 to 1975

(in millimetres)

Name of raingauge Staiion	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Aurad taluk													
Santhpur	..	..	..	..	..	..	1027.4	884.4	966.1	741.3	1018.5	881.3	899.1
Bhalki taluk													
Bhalki	..	..	..	..	..	..	981.7	1118.0	1134.5	763.0	1006.9	1242.3	1114.9
Bidar taluk													
Bidar Observatory	833.4	840.7	1001.3	947.9	1558.8	1331.5	1058.2	1125.8	982.0	787.9	859.6	1247.8	1051.7
Humnabad taluk													
Humnabad	..	..	..	..	..	..	875.5	951.9	876.9	625.8	960.1	1060.4	1253.6

TABLE III—(*concld.*)

(in millimetres)

Name of raingauge station	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Aurad Taluk												
Aurad	..	..	..	..	..	..	1067.1	807.1	432.1	862.6	872.2	1034.3
Kamalnagar	..	..	..	..	..	..	970.6	514.2	361.2	920.8	820.5	1063.8
Santhpur	785.2	698.2	539.5	857.4	634.9	675.3	1172.2	740.9	460.3	947.1	903.0	957.2
Basavakalyan taluk												
Basavakalyan	..	..	..	..	497.0	611.3	598.7	476.1	295.6	730.1	708.1	757.3
Bhalki taluk												
Bhalki	823.3	737.9	813.6	880.6	811.6	838.4	937.0	728.5	369.5	867.1	647.9	1021.3
Bhalki Seed Farm	..	..	..	..	..	..	1049.8	734.3	409.8	883.2	657.6	977.6
Khudawandpur	..	..	..	..	..	..	..	..	..	..	..	1255.0
Warwatti-Kalyan	..	..	..	..	..	..	..	..	..	..	..	968.4
Bidar taluk												
Bidar (Taluk Office)	..	..	..	..	..	..	935.0	549.0	456.0	744.0	706.5	1203.3
Bidar Observatory	1209.4	690.7	714.2	671.4	642.2	896.8	1080.5	674.0	627.6	902.3	812.8	1330.6
Bhangoor	..	..	..	..	..	..	..	565.9	333.9	677.6	719.0	1066.5
Kadwad	..	..	..	..	..	..	..	..	..	..	..	1239.0
Humnabad taluk												
Humnabad	1032.8	699.3	852.1	1036.0	711.4	741.1	993.8	705.5	352.0	837.0	788.0	915.5
Hudgi Seed Farm	..	..	..	..	..	..	..	513.5	273.4	685.1	780.4	1139.3
Chitaguppa	..	..	..	..	..	..	692.5	518.6	216.1	882.7	825.0	1068.4
Hallikhed 'B'	..	..	..	..	..	..	..	..	..	..	819.5	1207.4

Note: Some raingauge stations were started newly. Figures are given wherever available.
Source: State Bureau of Economics and Statistics.

TABLE IV

Normals of Temperature and Relative Humidity

BIDAR

Month	*Mean Daily Maximum Temperature*	*Mean Daily Minimum Temperature*	*Highest Maximum ever recorded*		*Lowest Minimum ever recorded*		*Relative Humidity*	
	°C	°C	°C	*Date*	°C	*Date*	0830 %	1730* %
January	28.6	16.8	33.9	1925 Jan. 30	3.9	1901 Jan. 5	62	39
February	31.2	18.6	37.2	1926 Feb. 27	9.4	1950 Feb. 11	53	34
March	34.9	22.2	41.7	1910 Mar. 19	12.8	1925 Mar. 2	45	31
April	37.1	24.6	42.2	1946 Apr. 30	12.2	1918 Apr. 30	48	36
May	38.8	25.8	43.3	1931 May 8	6.7	1918 May 12	51	36
June	33.6	22.7	42.8	1953 June 7	10.0	1918 June 2	73	58
July	29.2	21.3	36.1	1924 July 1	11.1	1900 July 31	84	68
August	29.0	21.1	36.1	1924 Aug. 16	9.4	1900 Aug. 15	84	67
September	28.8	21.1	36.7	1924 Sep. 23	8.9	1918 Sep. 24	83	69
October	29.8	20.8	36.7	1901 Oct. 26	8.3	1900 Oct. 24	69	51
November	28.1	18.2	36.1	1918 Nov. 6	6.1	1900 Nov. 9	62	46
December	27.3	16.4	32.8	1923 Dec. 2	2.8	1918 Dec. 16	62	40
Annual	31.4	20.8	..	..	..	..	65	48

* Hours I.S.T.

TABLE V

Mean Wind Speed in km/hr.

BIDAR

January	*February*	*March*	*April*	*May*	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*Annual*
10.5	10.5	10.6	10.9	13.4	20.6	22.9	18.2	13.0	8.9	9.3	9.3	13.2

TABLE VI

Special Weather Phenomena

BIDAR

Mean No. of days with	*Jan.*	*Feb,*	*March*	*April*	*May*	*June*	*July*	*August*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Annual*
Thunder	0.3	1.1	3.4	2.4	3.5	3.9	1.0	1.8	3.1	1.5	0.2	0.2	22.4
Hail	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Dust-Storm	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Squall	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fog	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.4