Chapter -

TOPOGRAPHY

1.1 Description of site

Aurangabad district is situated in the north central part of Maharashtra between Norths Latitude 19° 15’ and 20° 40’, and East Longitude 74° 37’ and 75° 52’. It covers an area of 10,107 sq. km falling in parts of Survey of India Toposheet No. 46 L & P and 47 I & M. The district is bounded by Jalgaon district in north by Nashik district in west, Ahmadnagar and Beed districts in south and Parbhani and Buldhana districts in east. The district headquarter is located at Aurangabad City. The district has geographical area of 10,10sq.km. Out of which 726sq.km is occupied by forest whereas cultivable area is 8135.57sq.km and net area sown is 6540 sq.km in 2010. Agriculture is the main occupation of the rural people.

Location of monitoring wells is presented as figure 3.1 and 3.2

Figure -3.1 : Location of Aurangabad in Maharashtra

Figure- 3.2: Map of Aurangabad district
3.2 Climate and Rainfall

The climate of the district is characterized by a hot summer and a general dryness throughout the year except during the south west monsoon season, which is from June to September while October and November constitute the postmonsoon season. The winter season commences towards the end of November when temperatures begin to fall rapidly. December is the coldest month with the mean maximum temperature of 28.9° C, while the mean minimum temperature is 10.3°C. From the beginning of March, the daily temperature increases continuously. May is the hottest month with the mean maximum temperature of 39.8°C and the mean minimum temperature of 24.6° C. With the onset of the south-west monsoon by about the second week of June, the temperature falls appreciably.

Except during the southwest monsoon season, when the relative humidity is high, the air is generally dry over the district. The summer months are the driest when the relative humidity is generally between 20 and 25% in the afternoon. Winds are generally light to moderate with increase in speed during the latter half of the hot season and in the monsoon season. The winds flow predominantly from directions between west and north during the hot season. They are mostly from directions between south west and northwest during the south west monsoon season. They blow mostly from the directions between northeast and southeast during the rest of the year becoming southwesterly to north westerly in January and February.

The average annual rainfall of the district for the period 2002 to 2015 is 705 mm

For present study four site were selected as it containing ficus carica trees, these are as follows

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Site I : Daulatabad area

Daulatabad also known as Devagiri (19°57' N; 75°15' E) is located at a distance of 15 km northwest of Aurangabad.

![Figure –3.3 : Daulatabad area](image)

Site II : Mitmita area

It is located few Kilometre from Daulatabad.

![Figure –3.4 : Mitmita area](image)

Site III: Himayat baugh

Himayat baugh is located at 19°54'11.78"N and 75°20'15.39"E is a 17th-century garden that now houses the Fruit Research Station and Nursery, which is a part of the Marathwada Agricultural University. It is located near Delhi Gate in Rauza Bagh area.
of Aurangabad. It is a sprawling complex spread over 300 acres (1.2 km²), naturally green and in the olden days it was known as the Mughal garden. The Himayat Bagh is a tourist attraction in itself because of its greenery and cool environment. Visitors can have a look at various plants and trees in the nursery, on which research is being conducted.

Site IV  : Harsool area
Harsool area located at 19°54′11.78″N75°20′15.39″, near Harsool lake about 10 Km South west Aurangabad.

Figure 3.5 : Harsool area

Figure 3.6 : Himayat Baugh area