Geography, Geology, Climate and Vegetation of the Area
Nizamabad district is between 18°10' and 19° North latitude and 77°40' and 78°37' Eastern longitude. It is bordered by Northern Adilabad district and Maharastra state eastern Karimnagar dist. southern Medak dist. and western Maharastra state. The district is situated in the table land of the Deccan Plateau. Isolated peaks and rocky clusters which are characteristic of Deccan plateau are seen commonly.

The district occupies an area of 7956 sq. kms with 36 mandals and 915 villages referable to 3 divisions.

A major part of the district is covered by the sandy soil, which is derived from the weathering of pink and grey granites. The black cotton soil is confined to the areas of basaltic rocks which are found in parts of Kama Reddy, Armoor and Nizamabad. Reddish black soils are also present in this district. Small patches of alkaline soils are found scattered in all the Mandals particularly in Kama Reddy area.

The climate of this region is characterised by hot summer and generally dry weather with some occasional showers except during the south west monsoon season. The year may be divided into three seasons.

The cold season start from November to February. The period from March to June is summer season this is followed by the south west monsoon season which lasts upto the end of October.
The average annual rainfall in the district is 1033.7 mm. The rainfall in the district in general, increases from east to west and varies from 945 mm at Kama Reddy to 1189.2 mm at Borlam. The rainfall during the south west monsoon constituted about 86% of the annual rainfall. Maximum rain is received in the mouth of July.

During the south west monsoon season the relative humidity is 67% in the post monsoon season humidity decreased to 40%. During the driest part of the year the humidity is generally between 20% and 25%.

The velocity of wind is between 3 to 9 km per hour reaching maximum during the south west monsoon period. The storms and depressions in the Bay of Bengal effect the weather causing rain and gale in the entire district.

The temperature of the district is between 41.4 to 12.9°C. Mean daily temperature in summer is 27.5 to 41.4°C and in winter 12.9 to 28.7°C. The highest maximum and the lowest minimum temperatures are 47.2°C, 4.4°C respectively.

Tropical dry deciduous forests occupy 1786.7 sq. kms of the total area. In this district two forest divisions located in around Nizamabad and Kama Reddy areas. The forest ranges are Kammaripalli (282.34 sq. kms.), Nizamabad (254.53 sq. kms), Banswada (335.69 sq. kms) under Nizamabad division. Indalwai (239.67 sq. kms), Kama Reddy (251. 57 sq. kms), Gandhari (197.49 sq. kms), Yella Reddy (225.41 sq. kms) are the forest ranges under Kama Reddy division. The
Nizamsagar, Pocharam, Ramadugu and Sriram Sagar Projects are the chief sources of irrigation in the district.

The composition of a forest of any place is the result of the interaction of several ecological factors, such as Climate, topography, edaphic and biotic factors.

The characteristic plant species of these regions are: *Terminalia arjuna*, *Terminalia alata*, *Madhuca indica*, *Bombax ceiba*, *Schleicheria oleosa*, *Opilia amentacea*, *Lagerstroemia parviflora*, *Lannea coramandelica*, *Careya arborea*, *Alangium salvifolium*, *Albezia lebbeck*, *Whertia tinctoria*, *Aegle marmelos*, *Chloroxylon swiestemia*, *Anogeisus latifolia*, *Diospyros melanoxylon*, *Boswellia serrata*, *Tectona grandis*, *Peltophorum ferrugentum*, *Rhamphicarpa longiflora*, *Syzygium cumini*, *Sonchus oleraceus*, *Holarrhena pubescens* and *Clerodendron inerme* etc.

The crops grown in this district include:

1. Cereals: Rice or paddy (*Oryza sativa*), Wheat (*Triticum aestivum*) and Maize (*Zea mays*)

2. Millets: Jowar (*Sorghum vulgare*) and Pearl millet or Bajra (*Pennisetum typhoidem*)

3. Pulses: Red gram (*Cajanus cajan*), Bengal gram (*Cicer arietinum*) and Black gram (*Vigna mungo*)
4. Oil seeds: Sesamum or Gingle (Sesamum indicum), Ground nut (Arachis hypogea) and Sunflower (Helianthus annuus), Caster (Ricinus communis), Nizer (Guizotia abyssinica).

5. Spices and condiments: Coriander (Coriandrum sativum), Bishops weed (Carum copticum), Chillies (Capsicum frutescens), Onion (Allium cepa) Black mustered (Brassica nigra) and Tamarind (Tamarindus indica).

6. Sugar crops: Sugar cane (Saccharum officinarum)

7. Fiber crops: Cotton (Gossypium herbaceum, Gossypium sp.)

8. Vegetables: Tomatoes, Bhindi, Brinjal and Leafy Vegetables etc.

9. Fruits: Mango, Orange and Lemon etc.