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Distributional Pattern Problems and Prospect of Soils and Natural Vegetation of District Jaunpur

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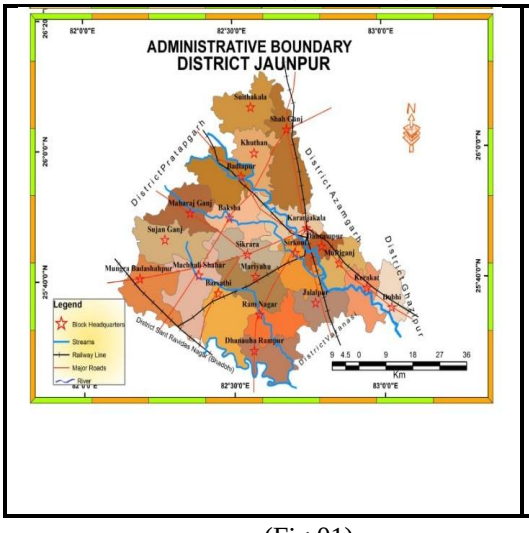
Abstract: ***District Jaunpur is a part of middle Ganga plain which signifies a vast alluvial stretch between the foot hills of Siwaliks in the northern and southern hills and plateaus in the south. This was alluvial plain was originally an elongated depression between the Gondwana land and he Himalayas. In the Pleistocene and sub recent periods, it was filled up with a huge quantity of alluvial sediments brought down by the numerous rivers from the Himalayas resulting into a level plain with very gentle seaward slope. But the recent aeromagnetic survey of the Ganga valley throws new light which does not support the possibilities of the frontal plains forming either a Fore deep or deep. Rift valley as postulated by Oldham, Suess, Burrard and others. The district area slightly slope from north-west to south east. Some undulations have been caused by rivers and their tributaries. The average height of the area above mean sea level is 85 meters to 92 meters in the west to 77 meters in the east. The soils are mainly sandy, and clayey and vegetations are mainly dry mixed Deciduous and Bamboo trees.***

Key words: Distributional Pattern Problems, tributaries, Natural Vegetation, numerous rivers, loamy.

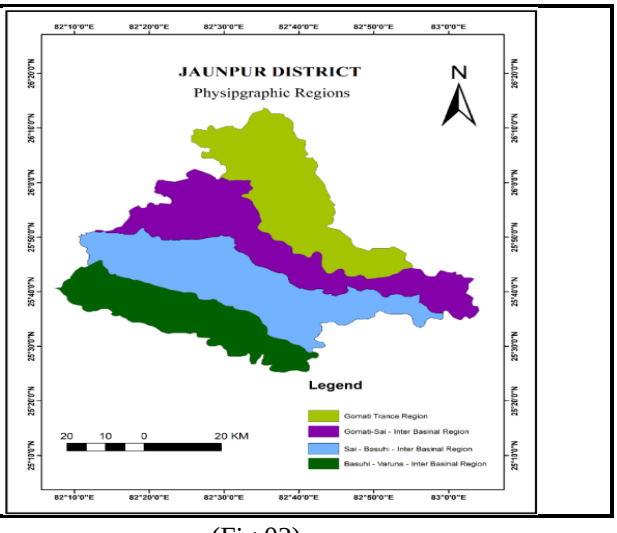
INTRODUCTION- Jaunpur district presents a level plain and Constitutes an integral part of the Ganga rivers of the district flow roughly from north-west to south-east .The rivers of the district constitute the determining features in the physical aspect of the district. The main drainage channels The Gomati, the Sai and the Basuhi divide the district area in the four almost parallel strips, each with fairly district physical characteristics. The first and the largest north-eastern tract lies to the north of the Gomati river extending from Sultanpur on the north and Ghazipur to the south-east. The second tract which is the most fertile and populous part of the district, lies between the Gomati and the Sai. The third tract lies between the Sai and the Basuhi rivers and is composed of thick clay. The south western portion of the district constitutes the fourth tract, it is along and narrow strip between the Basuhi and the Barna river with Considerable portion of high level barren land to the south of Machhalishahar Tehsil of the District.

Objectives- The main objectives of the research paper is to assess the soil types, soil erosion and soil conservation of the district, and to assess the vegetation percentage to promote of the district.

Research Methodology- The soil and vegetation related data in the district to the collection of secondary data from different published sources i.e, district gazetteers, census hand books, distrid statistical bulletins, district soil conservation, soil testing and district forest offices and others available sources and by primary data collection (Fig.1 and Fig. 2).



(Fig.01)

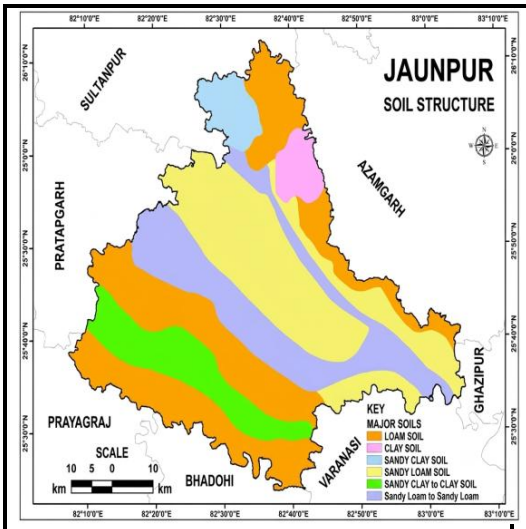


(Fig.02)

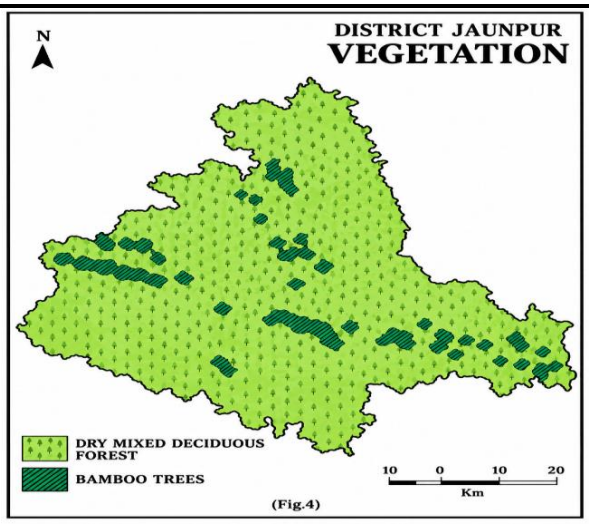
District Soils- Soil is our prime resource of any region. All of our foods and much of our daily necessities are derived directly or indirectly from the soil. Soil undoubtedly is the price less asset of the any Nation. It is the foundation of our economy and a valuable resource of our nation. A large number of physical and human factors are responsible for the development of any region soils. The present rock with

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their geological structure and history, topographic conditions, climatic variations, natural vegetation and mans activities together determine the formation and distribution of the soils in any region. The district is a level alluvial plain, so their are no Spatial Distributional Patter of Soils and Natural Vegetation in District Jaunpur, U.P several type of soils. However the following types of soils can be identified in the district Jaunpur. Clay soils (Matiyar). Bijar soil or chachar soils and karail or black soils, loam soils (Domat) and clay-Loam soils and mixed soils. According to the above types of soil the district can be divided into three main regions, first is north west region, second is southern region and third is middle region or the Gomati, Sai rivers basin region (Fig.3 and Fig. 4)



(Fig.3)



(Fig.4)

Clay Soils in the District- The Soils of the district Consist mainly domat (Loam) and matiyar (Clay). The clay soils are found in the low lying and depressed areas of the district. This type of soil accures in several parts of Shahganj. Jaunpur, Machhalishahar tehsil and some part of Badlapur and Kerakat Tehsil of the total cultivated area about one fourth is covered with true clay. It is generally known as matiyar soil, a soil with sufficient moisture produces excellent crops but other wise it is less productive. There are two such types , one is bijar or chacher, which is of a grayish color and is stiff low lying clay with an admixture of gravel. It is very useful for early rice or for nurseries of Jarhan paddy. This type of soil is absolutely useless in dry years because without moisture it is totally useless soil.

The other types of soil is karail or black soil which has a large amount of organic matter. It is almost found in the beds of Jheels and dried up tanks. It is extremely sticky and cohesive, when wet, but cracks are to fissures when it is dry. It is used for the coarse varieties of late rice and other crops.

The loam soils in the District- The loam soils found in the district comparatively higher areas of the district especially in the Jaunpur, Kerakat and Mariahu Tehsils. Some parts of the Shahganj and Badlapur Tehsils also possess this type of soil loam is known by its common name of domat. It is merely a mixture of clay and sand Loam is excellent soil when it is irrigated. The higher loams are called sigon, which is about two-third sand. South soils together with sand and the poor clays. constitute one fourth of the district.

The clay-Loam soils in the district- It is a mixture of two soils viz. clay and loam, Loam is of course mixture of clay and sand. The proportion varies with the elevation sand by itself is not very common and is found only near the channels of the two principal rivers The Gomati and the Sai. One the higher river banks. The soil is invariably light and can at best be described as a sandy loam. Sandy soils are is usually known as Balua soil, It is mainly used for the cultivation of coarse crops like millets, Arhar, Moth and other inferior crops.

The problem of Soil Erosion and Soil Conservation in the District Jaunpur- Presently the soil erosion is serious problem of the country and world. The term soil erosion means the loosening and removal of soil from its previous resting places by the action of water. In India, soil erosion is in many places a serious menace. The problem of soil erosion mainly exists in the catchment areas of various rivers and the soil conservation works are confined only to few patches of arable lands. Roughly an area of about 1,10,000 hectare is in the grip of soil erosion in the district. The soil land area of district near about 18.8 percent land

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high, 38.6 percent moderate and 42.6 percent land low degradation vulnerability. The first soil conservation unit was established in the district in Jaunpur in 1965-66, but later to meet the problem of soil erosion, one more units was established in 1975 at Badlapur. Al present there are many units works in many soil erosion problem areas of the district. In district the soil-erosion affected areas occur mainly along the river banks. It is a burning problem in the catchment areas of the Gomati and the Sai rivers. The major factors responsible for the soil erosion in the district are, the heavy and torrential monsoon rainfall, deforestation of river banks and sloppy areas, the defective agricultural practices main soil erosion problems of the district Jaunpur.

At present the soil conservation measures are being effectively carried out only in cultivable areas. Other affected areas which can also be fruitfully used after reclamation have been left. The conservation measures should be started there too. Some possible methods of soil conservation are check the problem of erosion of the district soil. There solutions are like contour cultivation, changing of crop practices and cropping pattern, Terraces run off-control, Increased use of manures, river embankments, keeping the soil covered with grasses or trees, control of rock washes on steep slopes provision for irrigation facilities in the un irrigated areas. Any other necessary solutions are fruitful for check the soil conservation of the district Jaunpur.

Natural Vegetation in the District Jaunpur- The district is an integral part of the middle Ganga plain which is deep fertile and densely populated so there is no significant forest in the area. However, the tropical deciduous trees characterize the area and are found scattered. The Mangoes, Mahua, Bamboos, Acacia, Neem Shrubs, Babool, etc, are common sights through out the length and breadth of the district area. The brief account of the important vegetation types of the district is mainly, The Tropical Dry deciduous and the Bamboos are main types.

The Tropical dry deciduous category of vegetation in the middle Ganga plain type. This type of vegetation is known as monsoon type vegetation. The trees shed their leaves for about six to eight weeks in summer each species having its own time. In this type there are some important trees which are found in all the parts of the District (Fig.2) The mangoes, Matua, Sheesham, Neeem Jamun, Siras, Holfig. Banyan, Tamarind etc. do the whole area. The Babul trees are common in the rice tract. The palm trees principally occur in large numbers throughout the eastern portion of the district.

The Bamboos trees are common in all parts of the district area. These are found especially along the Gomati and The Sai rivers. The blocks having significant concentration of bamboos are Mariahu, Dharmapur, Kerakat Dobhi, Khutahan, Baldapur, Rampur, Sujanganj, Maharajganj and Baksha. (Fig. 4) the village people use this trees in their houses, huts and a variety of other household articles. The other types of trees in the district are found in scattered clumps in rural areas and along the road sides. The total area under vegetation is about 309 hectare or 0.1 percent of the total land, area in the Jaunpur district. The vegetation covered areas in different blocks are unevenly distributed. In Mariahu block total area under vegetation 56 hectare, Barsathi,50 hectare, Ramnagar, 42 hectare, Rampur. 38 hectare, Machhalishahar 53 hectare, Suithkala, 33 hectere and Khutahan is near about 13 and 24 hectares other areas. The riverbanks like the Gomati and the Sai the vegetation percentage is high in comparison to plain agricultural areas of the district. At present under government forest plan many branches of forest departments are working to promote afforestation in the district area under the afforestation scheme many areas of Gram Samaj, waste land and road sides are being utilized. Afforestation is also going an along the railway tracks. Due to this the percentage of land under vegetation is gradually increasing to the effort of government forest department programmes.

Conclusion- In the district Jaunpur there are three types soils. like clay, Loam and Clay-loam soils are main types. Bijar or Chachar soils are the sub type of clay soils and Domat is Just like loam type. Clay-loam is mixed type soils, of the district save erosion is problem of the river side and slopy areas. The heavy and torrential monsoon rainfall, Deforestation of river banks and slopy areas, The defective agricultural practices are other main reasons of soil erosion of the district. We check the soil erosion problems by many efforts who are play an important role, to check the soil erosion. There are two types of vegetation in the district like the tropical dry deciduous and the Bamboos trees. The district main trees are the Mangos, Mahua, Shesham, Neem, Jamun, Siras, Holfig, Banyan and Tamarind etc. The percentage of vegetation is need to be improve by afforestation by the forest Departments.

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