CHAPTER 4

Dokur - A Village on the Plateau

In the previous chapter, we saw a village in the Krishna Delta which had plenty of water and rich soil. Imagine life in a different village that has little rain or irrigation facilities and poor soil. What could be the differences? Discuss them in the class.

Deccan Plateau

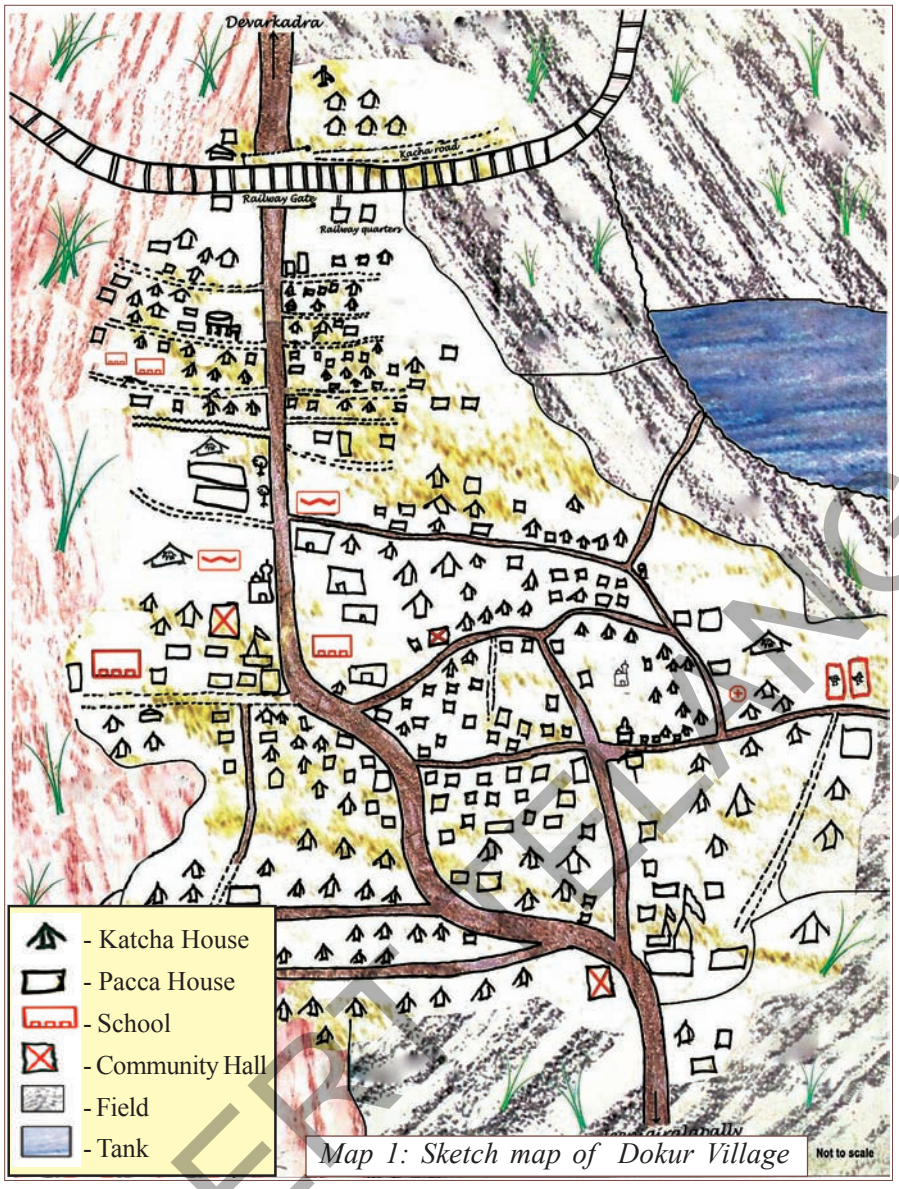
Observe the Telangana sketch map in chapter 3 showing major land forms. You would notice that Telangana State is largely a plateau. Compare this with the map 2 of the same chapter. You will notice that the entire Telangana plateau region falls on the wider Deccan plateau. You would also see that the Deccan plateau is flanked on one side by the Western Ghats and by the Eastern Ghats on the other side. The Deccan plateau higher in altitude as compared to the Eastern coastal plains. The plateau slopes from west to east. To understand this region, trace the course of the river Godavari and its origin.

Unlike the Krishna delta which are flat, plateaus are marked by several small hills, hill ranges and hillocks interspersed with flat areas between them. As a result, cultivation and settlement is possible only in small pockets. This region is also rocky with thin layers of soil. An important aspect of this Plateau region is that it receives very low rainfall. We wanted to see how people live in such difficult terrains. Therefore, we visited and examined a typical village located in Telangana plateau - Dokur in Mahabubnagar district.

Dokur Village

Dokur is in the Devarakadra mandal and is around 25 km away from Mahabubnagar town. The old name of this village is Dakur and it comes from the word Daku which means dacoit. Many years ago, dacoit groups lived in the area surrounding Dakur as it was easy for them to hide among the heavy bushes in the surrounding forest area. Today, the village is called Dokur.

Fig. 4.1: Entrance to Dokur Village



Map 1: Sketch map of Dokur Village

- Look at the sketch map Dokur village. Describe the forms of transport and houses from this sketch? In what ways can you compare this with your own or familiar village?
- The tank is shown in blue even though at the time of our visit it was dry. Think of any reasons why this is so?

INDEX

- Railway line
- Pacca Road
- Katcha Road
- Cemetery
- Hospital
- Poultry
- Cattle Shed
- Temple
- Mosque

Climate and Rainfall

The temperature of the region goes up to 40^0 Celsius during the summer months from February to June. However, during the winter months from November to January, the temperature during the day is usually between 20^0 Celsius and 30^0 Celsius. This region gets rainfall from the end of June to October. However, the rain is scanty and irregular. It varies a lot from year to year and therefore, it is unpredictable and unreliable. During years of really low rainfall, a drought situation develops. Crops dry away and there's little rainfall to fill the tanks or recharge the ground water. Drinking water for humans and cattle becomes a major problem. In the absence of irrigation facilities, it is difficult to carry out any agriculture work. These are difficult years when people may be forced to look at other options for employment. Since such years of really low rainfall keep repeating, we can say that the region is drought prone.

- What are the differences between the rainfall in Dokuru region and that in the Krishna delta?
- Find out from your elders if the rainfall in your region, over the past ten years, has been irregular and unreliable?

Soils

About half of the agricultural land in the village has red soils. These red soils or *Erra Nelalu* are not very deep or fertile. They lack many nutrients necessary for growing crops and because of the high sand content, they do not retain much water to help the roots spread firm and wide. These fields have to be left uncultivated for one season after every crop so that they are able to recoup their nutrients from nature.

Nalla or shallow black soils with about 60 cm depth. They cover a small part of the agricultural land of this village. This soil is suitable for crops, though not as good as *regadi,* the deep black soil type which is available in other parts of the Plateau. The black soil type is more fertile and crops can survive in it for longer periods because it retains the moisture for a long period. These soils are very hard when dry and sticky when wet. These black soils are one of the most productive types of soil.

Choudu and Garusu are the other major soil types. They constitute about 30% of the land area of the village. Mostly, these are uncultivable and mostly with pebbles.

Water resources – Tanks and Ponds

Pedda cheruvu is the main tank in the Dokur village. It gets water only when the tank of Devarakadra is filled, which is around 5 km from Dokur village. When Pedda cheruvu of Dokur is filled with that water, it flows to other tanks like Chakali Koyikunta, Vani Vampu and Badi and Vampu which are smaller tanks close to this place. What we have, therefore, is like a necklace of pearls, there is a 'chain of tanks'.

These tanks were excavated long ago so that rain water could be stored in a systematic manner so that it could be used during the months after the monsoon is over. With such low rainfall, people devised this system of 'a chain of tanks' to capture as much water as they could. The water in these tanks also recharged the surrounding wells.

This system of 'a chain of tanks' is seen across Telangana. How is the plateau region suitable for building these structures? Discuss in the class.

Fig. 4.2: White Soil with pebbles and the near by hills.

Fig.4.3:Tank with pool of water and weeds growing in it Moreover, one side of the tank has now even been encroached.

Venkat Reddy, an elderly farmer from the village, recalls, "In the olden days, one person from each farming family would join in removing silt from the tank, clearing the weeds etc. They would together catch the fish. The fish that were caught would be placed as a heap in the centre of the village and shared by everyone."

The paddy crop is now dependent on bore wells dug downstream of the tank and not on water drawn from tank. Traditionally, the tank water had irrigated nearly 400 acres of land and most sections of people had some access to this tank. Today, most of the cultivated land depends on borewells.

- How did the chain of tanks work earlier?
- How did it help in storing water, irrigation and recharge of ground water?
- Why do you think that the system is now in a disused condition?

Wells and Bore wells

The village did have wells that were 40 to 60 feet deep but the wells have now dried up. In a region of low rainfall and no percolation from the tanks in disuse, these wells also have little water. People have stopped digging wells.

The ground water table is very low in the plateau region but now everyone wants to rely on bore wells. Even though only a few bore wells can be successful, there is stiff competition for water. Over the years, with everyone digging for water, the depth of bore wells has increased. From 100-150 feet earlier, water is now available after 200 feet in some places and 500 feet in others. Even the farmers with very small holdings are forced to dig bore wells. Digging bore wells is expensive and risky as we can see from the examples below.

Mogilanna, a small farmer says that it costs one lakh rupees to dig a bore well. He dug four bore wells but only one came into use. To make matters worse, water from the bore-well is sufficient only to cultivate one acre of land. Similarly, a big farmer in the village, Narendar Reddy, narrated that he dug 15 bore wells for his

Fig. 4.4: Irrigation with bore well

20 acre land but water is available in two bores only.

Bore wells are expensive and risky but all the farmers have shifted to this system. Earlier the small farmers had better options from their wells and share of ayacuttu land, when the system of tanks was in use. Today, only large farmers can take the risk and benefit from access to the deep ground water.

- Discuss the changes in irrigation facilities in this village?
- Compare the irrigation facilities in a plain village with that of a plateau village?
- Compare the irrigation facilities of this village with your village?

Agriculture and Crops

The farmers of Dokur grow cotton, ground nut, castor, paddy, bajra(sajjalu), alasandalu(pigeon pea) and kandulu(red gram). Earlier, people would grow mainly millets as food crops. Cotton is grown in the Nalla regadi (black soils) fields. Ground nut and castor are grown in the fields of red soils. The area under groundnut farming has decreased recently due to the threat of wild pigs and in its place farmers now grow castor. While Bajra (sajjalu) is grown in the white fields (chavudu nelalu loamy soils), Red grams and alasandalu (pigeon pea) are grown as intermittent crops, along with other crops.

Paddy is grown with the water of pedda cheruvu and sampenga vagu. Pits are dug in the vagu(stream) and the water is drawn with motor pump. If the stream dries up, the paddy crop also gets destroyed.

Paddy and Groundnut are grown by using bore wells from October to January (rabi). The farmers say that the paddy yield from an acre of land is about 20 to 30 quintals. Over the decades, the cost of agriculture has increased due to increasing prices of chemical fertilizers, pesticides and the use of harvesters. The use of traditional manure has drastically reduced.

- Can you identify the Kharif or monsoon crops and the rabi crops in this village?
- What are the risks associated with growing groundnut as a crop? Discuss in the class.

Declining ground water levels – a widespread problem

Farmers all over the plateau region have been digging more and more borewells in order to grow cash crops. As a result, more water is pumped out than recharged by rains. Consequently, every year the water level in the wells is going down and the bores are going dry after a very short use. Find out and discuss the causes and possible solutions.

Fruit orchards

Some farmers of Dokur own mango and orange orchards. These crops require less water than paddy and can be grown on the land previously used for ground nut cultivation. They grow some groundnut as an intermittent (in between the Trees) crop during rabi season. Large farmers in this area uses sprinklers for irrigation.

Fig. 4.5: Mosambi (chini) orchard with drip irrigation

Is the Land use in Dokur 'sustainable'?

Environmentalists believe that we need to plan the use of our lands in such a way that they remain productive for generations to come. For this, we need to practice sustainable land use. This requires that the soil fertility be maintained and the groundwater remains recharged. There should be a proper balance between forests, pastures and agricultural land and so on.

- How could soil fertility be increased?
- Is it possible for farmers to collectively decide the cropping pattern for their village?
- How would you share the produce from pasture land and forests?

Other livelihoods

Since farm employment is available only for six months, small farmers & agricultural labourers are migrating to cities and towns in search of jobs. Besides Hyderabad, they also migrate to cities in other states like Pune in Maharashtra and Goa and return in June. Since stable income from agriculture is unpredictable in this village, farmers undertake other activities, apart from farming to sustain their livelihood.

Cattle rearing

A few farmers of Dokur rear cattle for milk. Milk is sold at co-operatives run by the government. The price of the milk is decided depending on the fat content present in it. They get about 35 to 40 Rupees for each litre of milk. Most often, buffalos are reared for milk.

About twenty families in Dokur, who have small land holdings, depend extensively on sheep rearing for their livelihood. During the rainy season, the sheep graze in the village common lands. A shepherd, Nagaraju, said "We also allow

A Different kind of farming

We saw that the soils of the area are poor and that the rainfall is less and uncertain.

This means that the farmers have to resort to the use of chemical fertilisers and borewells to grow crops like groundnut every year. There is a third problem – that of disease and insect-pests. In order to tackle them, the farmers use expensive pesticides. Some farmers have recently been thinking of changing these practices. They felt that it is important to improve soil quality by contour bunding and use of organic manure; they grow diverse food crops rather than only one cash crop like groundnut; they have tried to repair and restore the old tanks and spring channels to irrigate the lands; they use organic pest control methods like neem solution.What do you and your parents feel about these suggestions? Discuss them at home and in the class room.

Fig. 4.6: Grazing Sheep

our sheep to graze in the fields of real estate ventures surrounding the village and the nearby hills of Manyam Konda. In the summer, we travel with the sheep to the districts of Nalgonda and Kurnool for the grazing. And our income is about a lakh rupees every year".

Other activities

Carpentry, metal work and rice milling are some of the other non-farm activities of Dokur. There are two families in the village who do the wood work. They prepare the doors, windows and roof sheets for the construction of houses. Nowadays, they use electric machines for most work. Prabhakarachari, a carpenter of the village, said that he earns about Rs.3000/- per month. There are two-three families of blacksmiths in the village. They repair agricultural implements and also do welding work. Apart from this, there is also a rice mill.

At the same time, there are around 20 families who are in the professional services or government employment. There are also some families who work as drivers or own vehicles which run as taxis.

Market and Transportation

While the paddy produced in the village is sold in the agriculture market of Devarakadra, the cotton is marketed in Jadcherla and Madanapuram (Wanaparthy road). The village has its own village kantas (weighing machine) and many farmers use them as they believe the kantas in the market are often incorrect. One of the problem the farmers face is the arbitrary decisions on prices by the traders. Many farmers are dependent on loans from traders for purchasing seeds, pesticides and fertilizers, hence have to accept the price offered by them. Repeated crop failures make the farmers indebted to the traders as they cannot return the loans and there's a risk of losing their land.

- Why are farmers dependent on traders? What kind of marketing system would be fairer for farmers? Discuss.
- In what ways could non-farm activities be increased in the village?
- Is there an employment scheme run by the government operating in your village? Which families benefit from this?

Fig. 4.7, 4.8 & 4.9 : Identify and describe the work done by the following people.

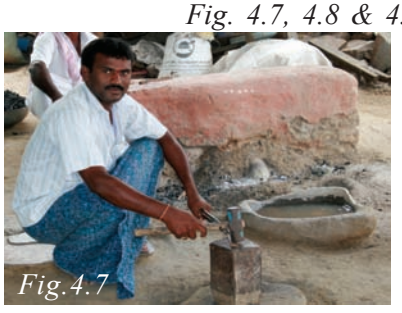


Fig.4.7

Fig.4.8

Fig.4.9

Village Settlement

There are about 570 families in this village with about 3400 people as per 2011 census. Of these, about 350 families are of various castes who own most of the land in the village. The remaining 220 families depend mostly upon wage labour either in this village or nearby villages. Their landholding is less than half acre each. All of them are agricultural labourers. As we saw earlier, they also migrate.

Out of the 350 families there are three or four large farmers with about 30 acres of land. Most other farmers have only about half to five acres. Hence, most of the cultivators are small farmers.

In the earlier days, roofs of the houses were made of baked clay and walls with mud. Wood was not used much. The new houses use steel, brick and concrete. Stone and mud is easily available from the nearby quarries. The houses of the poor are thatched or have tin sheet roofs. Most houses in the village have electricity connection.

Earlier, the people of Dokur depended on wells for drinking water. Now a days, drinking water is supplied through an overhead tank which draws its water from a bore pump. Water is supplied through taps once every two days. All houses have tap connections that have been provided by the government agency.

Roads and Markets

There are a few shops in the village such as kirana shops, chicken centre, vegetable shops, pan shop and so on. Buses ply from Mahabubnagar to Dokur village. A few buses ply from Devarakadra to Wanaparthi via Dokur which is linked to NH-44. Most of the villagers travel by shared Auto rickshaws. Towards the north of the village, there's a railway station where three local trains stop.

Fig.4.10

Fig.4.11

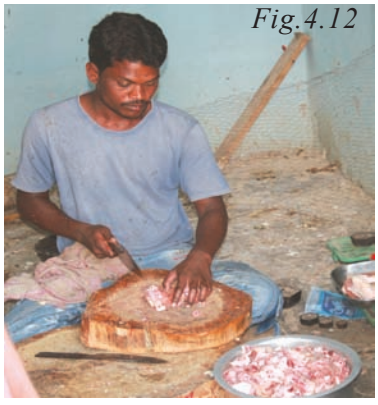


Fig.4.12

Fig. 4.10, 4.11 & 4.12 : Few images from the market

Fig.4.13

Fig.4.14

Fig. 4.13 & 4.14 : Just in case you want to travel to Dokur, these modes of transport will help you.

Keywords

Plateau Tank Groundwater Soil types Sheep rearing

Improve your learning

1. Compare water availability in the borewells of the Krishna delta and the plateaus.
2. Compare the changes in cropping pattern of Dokur and Penamakuru.
3. Do you think agriculture can be a profitable profession in places like Dokur?
4. What difference would it make to the village, if the rainfall in the region increased?
5. What non-agriculutural occupations are there in your village? Get details about one such occupation.
6. Write a description in one line for the words given below:

S.No.	Item	In Dokur
1.	Soil	
2.	Water	
3.	Crops	
4.	Markets	
5.	Occupations	

7. Read the paragraph "Environmentalists ..... recognised" and write your opinion.

Project :

There are two types of land called *Metta and Tari*. Traditionally, pulses are grown on *Metta* land without irrigation and paddy is grown on *Tari* land with irrigation. If you live in a village, find out about the type of soil in your area. What words are used to describe the land in your village? How is the soil? Make a table showing the following feature of soil – water absorption (high/low), water retention (quick/slow), sand content (high/low), colour of the soil from the above village. compare them with the type of soil in your village.