



A Study on the Protection of Water and Preservation of Land by the Farmers in Dang District

DR. NARESH C. PATEL
Assistant Professor,
Department of Economics
Sri K. K. Arts & Commerce College, Dhandhuka.
Dist. Ahmedabad.(Gujarat)

Abstract:

The motive behind studying this subject is to know about the different techniques used by the farmers to protect the water and to preserve the land. It is studied to know about which kind of changes are seen in the quality of the grain due to the preservation of the land, and to know whether the changes are seen in the ploughing area, production and in the income due to the land preservation process. The research randomly selected 10 villages and 120 families for the study. Information is collected by stationary keeping an aim of the subject. It is observed from the study that if the farmers keep this technique alive and aware all the farmers of different villages giving its information then surely the financial and social structure of Dang will be changed. And the question of employment and migration will be solved in the district.

Keywords: Agriculture, Farmer, Land, Preservation, Protection

1. Introduction

There is 99% population belongs tribe community in Ahwa (Dang) district. Their main source of income is farming and farm labouring. Whole society is depended on farming related industries for the sake of earning money. There is no other option with them. Even though getting more rain, they have to face the problems of irrigation, migration and revival of farms because of the problem of conserving water. Lack of education, farmer's less knowledge of farming are also a reason for the revival of farms. Many drastic changes are seen in the financial earning of the backward district like Dang due to techniques used like farm boding, Nala plug, Gebian and land leveling in the field of land protection and water preservation. Farmers are moving towards modernization in the farming due to which the qualitative and resultative changes are seen. This study is done to know whether actually how much changes are going on by the techniques of the land preservation.

2. Objective of Study

1. This study is done to know about which techniques are using the farmers for the land preservation and water protection
2. This study is done to know about the changes going on in the quality of the grain due to the land protection process.
3. This study is done to know whether the changes are seen in the ploughing areas comes under land preservation and also to know whether changes are seen in the production and income due to the land preservation.

3. Limitation

1. Only 10 villages are selected for the study out of 311 villages located in the Dang district.
2. Only 120 families of the families connected with the farm banding technique are selected for the study.

4. Selection of Sample

10 villages are selected for the study in which villages are selected as this way, 2 from Ahwa cluster, 2 from Vaghai cluster, 2 from Subir cluster and 2 from Samagahan cluster. Total 120 families are selected for the study in which villages are selected as per this way, 22 from Ahwa cluster, 44- Vaghai cluster, 44 – Subir cluster, 6 – Samagahan cluster.

5. Methodology

Information for the study is collected from the primary information or personal visit. Selected families for the study are visited after preparing a questioner keeping an aim of the subject in the mind. Then after information is collected by asking questions related to the subject.

The collected information is categorized as per the quality in the table.

6. Result and Discussion

Farmers of Dang district are using different types of techniques to bring out modernization for the land and its preservation. Different types of techniques like farm bunding, Nala plug, Gebian, and land leveling are included in it.

Embankment of the land is made in the farm bunding technique to keep the land fertile to prevent the land erosion.

Embankments of the stone are made in the Nala plug to store the water so that the preservation of land can be done.

Farmers are doing big embankment in the Gebian technique if the kotar is deep. And these embankments are tightly tied with the wire to keep the Embankment from breaking and flowing due to the water.

Table 1: Farmers Connected with the Different Techniques

Works	Nala plug	Farmbund and Gebian	Nalaplug & Gebian	Gebian	Farm bund and Nala plug	Farmbund	Farmbund, Nalaplug and Gebian	Farmbund, Nalaplug & land leveling	Farmbund, land leveling	Nalaplug, land leveling	Total
Number of farmers	5	2	4	30	80	10	10	3	3	1	120

In the land leveling technique the imbalanced land is balanced and then farming is done on it. As per the table it is said that Farmers (80) use more the techniques of farmbund and nalaplug. While only one farmer is using the techniques of Nalabund and land leveling. The farmers are using these techniques keeping in mind the situation of the land. There are only farmers who are using a single technique and the rest of the farmers are using more than one technique. Dang district is covered with the hills. There isn't level land. So that the farmers are using farm bunding technique. After using this technique which kind of changes are brought out by the farmers in the quality of the grain is known as per the table 2.

Table 2: The Ploughing of Grain Before and After Farm Bunding

No. of farmers	Paddy	Urad	Nagli	Kudit	Mag	Varai	Gram	corn	Brinjal	lentil
Before	6	4	106	1	1	3	-	-	-	-
After	106	1	-	-	1	-	7	2	1	1

As per the table 2 it is said that, before using farm bunding technique the grains like Nagli are grown very much by the farmers. After the farm bunding technique, farmers are not ploughing the light and giffen type grain like Nagli. In place of it they are doing ploughing of paddy. Earlier the farmers weren't doing farming of gram, corn, brinjal and lentil but after coming of this technique they started ploughing it now. It means the quality of grain is changed due to this technique.

Table 3: Ploughing Area on the Embankment after Farm Bunding

Ploughing Area	Name of the Grain			
	Jowar	Green Chilli	Papdi	Total
Ploughing are (in Guntha)	13	2	3	18
In Percentage	72.22	11.11	16.67	100

As per the table 3 it is said that, the farmers are doing farming near the end of the farm for the formality but after this technique the land on this embankment is also used. Grains like Tuvar, greenchilli and Papdi are ploughed in which they keep some for their home use and the sold the rest in the markets.

Table 4: Production of the Grain in the Nanaplug

Production	Production of different grains (K.G)						
	Gram	corset	lentil	Onion	Fingers	Soya bin	Total
Production (KG)	211	15	40	25	20	9	320
In Percentage	65.93	4.69	12.50	7.81	6.25	2.81	100

As per the table 4 it is said that, different types of grain are grown after preserving the land by the Nalaplug technique. There was a time when the farmers wasn't giving importance to any other grain except leguminous and some groundnut. And they did farming only for the sake of their life. But now the farmers are moving towards the modern farming. They are doing farming of gram, corset, lentil, onion, finger and soya bin by preserving land through Nalaplug technique. In which the production of gram is 211 kg at a highest level. Production of the rest of the grains are also increasing and held as a symbol of development.

Table 5: Income of the Farmers Connected with Different Techniques

Works	Nalaplug	Farm bund and Gebian	Nalaplug and Gebian	Gebian	Farm bund & Nalaplug	Farm bund	Farmbund, Nalaplug and Gebian	Farmbund, Nalaplug and land leveling	Farm bund, land leveling	Nalaplug, land leveling	Total
Famrer wise income	3305	266350	7531	6800	4131	51910	54922	194541	189033	64525	27276

As per the table 5 it is said that, the farmers using farm bunding and gebian techniques are gaining more income. Income of the farmers depended only of the gabian technique seen very low. If we see overall, the farmers got success in every technique.

7. Conclusion

Farmers of Dang district, selected for the study are using many techniques to prevent the flowing water and the erosion of the land. The farmers themselves used these techniques. Mostly all the farms are on the hills due to the hilly area and more rain. Problems related to the land erosion area for forever. To solve these problems every year they use these techniques. As per the study of the subject it is known that since the farmers are using these techniques, the changes are seen in the quality of grain, production of farms and in the income of the farmers. Even the farmers are using that lands which they aren't using for the agriculture. Due to which the feeling of co cooperativeness and social

living is also developed. The government and the private institutions are trying very well to encourage them.

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