

Changes of Agricultural Practices in Sikar District of Rajasthan

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ABSTRACT

With the growth of nuclear families, there have been major changes in the average land ownership pattern; the agricultural land is divided into small, sometimes unsuitable for cultivation. Over the past few decades, the Sikar region has seen a major change in its cultivation pattern. 82.5 percent of the state's net cultivated land in 2015-16 had more than one plantation, compared to 34.4 percent in 1976-77. Average crop use across the region is 145%. However, depending on the availability of water resources and groundwater in the block, there is a deviation in the environment.

Keywords: Land-holding, Cropping Pattern, Cropping Intensity, Yield, Productivity

INTRODUCTION

With the development of the nuclear family, there has been a great change in the average land structure; agricultural land is sometimes divided into small plots of land unsuitable for cultivation. The decrease in households of 2 hectares and above and the increase in households of less than 2 hectares are additive.

Data clearly shows the broken ground. There are also a high percentage of landless households in the region. Declining land ownership has a direct impact on crop patterns and household income.

This has also led to degradation of community lands, grasslands and forest fringes for agriculture. Therefore, grass and forest fringes are reduced.

Cropping Intensity:

82.5 percent of the state's net cultivated land in 2015-16 had more than one plantation, compared to 34.4 percent in 1976-77. Sikar has the same method; plant density is 145% throughout the region. Almost 100% of the arable land in the sample village is used and there is no land for open-air grazing. Reasons for the increased use of rice include improved irrigation facilities, improved seeds, fertilizers, increase in nuclear families, lack of other sources of

income and reduction of landowners. A family with a small piece of land has no choice but to make the most of it. Increased land use also contributes to conflicts that drive climate change.

Cropping Pattern:

Over the past few years, the Sikar region has seen a major change in its crop pattern. The main products within the scope of the current agricultural model are bajra-wheat, bajra-mustard, guar-wheat and guar-mustard. Rabi's main crops are mustard and wheat, while Kharif's main crops are bajra and guard. The cultivation of crops such as gram, millet and millet was greatly reduced. Likewise, the region has seen major changes in productivity and in different cultivated areas.

Data changes in cultivation use, which is the area sown for the main Rabi and Kharif crops; Area, production (yield) and production of major crops in the region such as rice, mustard, green beans and vegetables.

Changes in Area, Productivity and Yield of Wheat:

The cultivated area in 2016-17 was 47,000 hectares with an average yield of 42.2 q/ha. The importance of rice cultivation is mainly due to good price support and the development/influence of public policies. Villagers find it useful, good quality seeds, no cash crops, crops for domestic use only, development/intervention, good price support and public policies, rice are good food, etc. There are some important reasons.

The paddy area, which was 39,400 hectares in 2000-01, has increased by 19.3 percent since 2001 to 47,000 hectares. Average yield per hectare has increased by 12.5 percent since 2001. The main factor (34.2%) is that the increase in crops is due to more land for crops.

Change in Area, Productivity and Yield of Mustard:

In the 1980s and 1990s, the Green Revolution gave a strong impetus to the cultivation of more diverse crops in the region using high-yielding rice and mustard varieties. The mustard area has increased by 31.5% (71,000 hectares)

since 2001. Importance of mustard cultivation in this region according to local people –

1. Requires less water than other crops
2. High economic value
3. Improves interaction and intersection of mustard with potato.
4. Crop cultivation in embankments can be a commercial crop for this crop
5. Development/intervention
6. Promoting good prices and provisions for public stockpiling
7. Area receiving favorable agro-climatic conditions
8. Easy availability of improved seeds

According to the average data over the last 17 years, the mustard period harvest is about 14.63 liters/ha. But the chart shows lower results in 2001-22, 02-03, 05-06, 2012-13, 2015-16, mainly due to climate change. Yields in 1996-97 were 18 quintals/ha, well above the 17-year average of 14.63 quintals/ha (2001-2017). Despite a 28% increase in production, total production has fallen by 2% since 2000-01. This is largely due to the increase in mustard acreage.

Change in Area, Productivity and Yield of Gram:

Barley, Mung beans, roses and moths have been the main Rabi crops in the region for the past few years. Low and erratic rainfall, insufficient water for irrigation, and poor groundwater quality, combined with arid and semi-arid soils, result in low crop yields during the rabbinical season, resulting in major changes in crop production. After 2006, Sikar saw a huge decline in Gram cultivation. Sikar residents also noticed that luna and moth area, which is a rare crop in the region, has also declined in the last few years. According to the interview with the local people, some of the main reasons for the loss of cultivation area are:

- i. Low and weak precipitation with uneven distribution
- ii. Depletion of the water table
- iii. Exacerbated micronutrient deficiencies in the soil resulting in reduced soil fertility
- iv. Light textured seepage with poor water quality and nutrient holding capacity
- v. No water collection and management practices
- vi. Poor Soil Health Management

A study by the Ministry of Agriculture showed a 75% loss of crops between 2000-2001 and 2001-02. Only 5,000 hectares were planted in the region compared to 20,000 hectares last year. It saw steady economic growth in 1998-99.

Between 2012 and 2013, the area was only 500 hectares. In other words, while gram was one of the important crops of the region, gram now came to the brink of extinction in the region years ago.

In 2014-15 the Gram field was zero. The data show that although the yield per hectare varies even after excessive fertilizer use, there is a decrease in planting and production areas per gram. The data also show an increase in production from 6.3 q/ha - 91 in 2000 to 11 q/ha (74.60%) over the next five years, a similar trend should be stronger.

Changes in Area, Productivity and Yield of Vegetables:

Data show the growth of rice cultivation and production over the past seven years. However, the yield per hectare remained almost unchanged at around 14 tons per hectare. Current research also shows that fertilizer use in the region has increased by more than 150% in the last few years. The development of vegetable cultivation is taking place, as it is more profitable for the economy compared to the traditional crops of small plots.

CONCLUSION

With the growth of the nuclear family, there was a great change in the average land structure; agricultural land is sometimes divided into small plots of land unsuitable for cultivation. Over the past few years, the Sikar region has seen a major change in its crop pattern. 82.5 percent of the state's net cultivated land in 2015-16 had more than one plantation, compared to 34.4 percent in 1976-77.

Average crop use across the region is 145%. However, depending on the availability of water resources and groundwater in the block, there is a deviation in the environment. The importance of rice cultivation is mainly due to good price support and the development/influence of public policies. The cultivated area increased by 31.5% (71 thousand hectares) since 2001. Low and poor rainfall, water scarcity, and poor groundwater quality, combined with arid and semi-arid conditions, result in low crop yields throughout the season. Rabi brought about a great change in crop cultivation. After 2006, Sikar saw a huge decline in Gram cultivation. The development of vegetable cultivation is taking place, as it is more profitable for the economy compared to the traditional crops of small plots.

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