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Land utilization patterns among the farmers in Girwa panchyat samiti of Distt. Udaipur Rajasthan

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Abstract

Land is important natural resource, which supports evolution and development of all types of lives on land. Land plays the key important role in the determination of man's economic and cultural progress. The present study was conducted in Udaipur district of Rajasthan. Udaipur district consists of total seventeen panchayat samities out of which Girwa was selected purposively, ten revenue villages were selected based on highest population and total 150 respondents were selected from every village through proportionate random sampling. Revealed that during kharif and Rabi the prioritized crops for which the land by the farmers utilized most were cereals crops, pulses vegetable crops, Fodder crops and oilseed crops. It implied that first five crops viz; Cereals, pulses, vegetables, fodder and oilseed were the most preferred for utilizing the available land by the farmers. The trend of land utilization among the farmers during Zaid season was found quite different. It was noted that first fodder crops, ranked I, followed by vegetables crops, pulses, cash crops and Cereals with II, III, IV and V rank respectively.

Keywords: Land Use Pattern, Utilized, Farmers

Introduction

Land is important natural resource, which support evolution and development of all types of life on land. Land plays the key important role in the determination of man's economic and cultural progress. All agricultural, animal and forestry production depend on the quality of land. It meets the demand of food, energy and other needs of livelihood. Thus, land is valuable input in agriculture.

The layout or arrangement of the uses of the land is known as "land use pattern". The land may be used for agriculture, forest, pasture etc. Land use is determined by many factors like relief features, climate, soil, and density of population, technical and socio-economic factors. Out of India's total geographical area of 328.7 million hectares, the statistical information about the land use pattern in India is available for only about 305.69 million hectares. Rajasthan is located in north-west part, it is the largest state of country, having a geographical area 3,42,239 hectares which constitutes 10.41 per cent area of the country. Approximately half of the area of the Rajasthan state is under cultivation with an average 125 per cent. 12.6 per cent is put to non-Agriculture uses i.e. not available for cultivation. The other land use classes include 13.27 per cent of land as culturable waste, 7.76 per cent under forest, 10.75 per cent fallow land, 5 per cent under pasture and grazing land.

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Methodology

The present study was conducted in Udaipur

district of Rajasthan, Girwa panchayat samiti was selected purposively, ten revenue villages were selected on basis of highest population and total 150 respondents were selected from every village through proportionate random sampling.Study of the land utilization pattern among the farmers in the study area, a suitable interview schedule was developed particularly for this purpose. The responses obtained from respondents were recorded on five point continuum scale *viz*., 100 per cent, 75 per cent, 50 per cent 25 per cent and 0 per cent, these points were assigned scores 5, 4, 3, 2 and 1 weightage respectively. Total score obtained by each of the respondent as well as for each component was calculated. The respondents were divided into three categories (low level, moderate level and high level of land use.) on the basis of arbitrary method, following are different formulae, which are made use for different statistical analysis.

Mean score

It was obtained by way of total score of each statement divided by total number of respondents

$$M.S. = \frac{W_1 + W_2 + W_3 + \ldots\ldots\ldots\ldots + Wn}{n}$$

Where,

M.S. = Mean score

W = Weight given to the respondents

n = number of respondents

Mean Per cent score

It is obtained by multiplying total obtained scores of the individual respondent by 100 and dividing by maximum obtainable score under each item/ aspect.

The formula is as under:

$$\text{Mean Percent Score (MPS)} = \frac{\text{Total score obtained by the respondent}}{\text{Maximum obtainable score}} \times 100$$

Results and Discussion

Overall Land utilization pattern among the farmers

The respondents in this case were also classified into three classes' *viz*., (83-99.33) low (99.34-115.67) medium and high (115.68-132.00) utilization. These classes were formed on the basis of calculated scores obtained by the respondents.

The data regarding land utilization by the respondents is presented in Table 1 the land utilization was calculated on the basis of use of available land by the respondents for cultivation of different crops and other uses. It was found that 77 (51.33 per cent) respondents were under medium utilization group, where 43 (28.67) respondents were in low utilization group and remaining 30respondents (20.00 per cent) were in high utilization group.

Table 1. Overall Land utilization pattern among the farmers

n=150

Category of utilization	Range of scale	*f*	Per cent
Low	83.00-99.33	43	28.67
Medium	99.34-115.67	77	51.33
High	115.68-132.00	30	20.00
		150	100.00

f=Frequency, n=Total number of respondents

Sub-aspect wise prioritized Land utilization pattern among the farmers

After categorization of farmers for land utilization, it was thought pertinent to analyze the utilization pattern in the light of two major aspects *viz;* (A) Crops and (B) Other than crops, thanfurther according to Kharif, Rabi and Zaid.

Table 2 speaks that during kharif, the prioritized crops for which the land by the farmers utilized most were cereals crops, pulses vegetable crops, Fodder crops and oilseed crops. It implied that first five crops *viz;* Cereals, pulses, vegetables, fodder and oilseed were the most preferred for utilizing the available land by the farmers.

Looking to the land utilization pattern among farmers, it was interesting that the similar crops *viz;* Cereals (MPS 82.40, ranked I), Pulses (MPS 71.47, ranked II), Fodder (MPS 67.60, ranked III), Vegetable crops (MPS 63.60, ranked IV) and Oilseed (MPS 58.80, ranked V) were grown by them. These results are also contradictory with the findings of Singh and Rai (2018), Mallanna (2015) and Singh and Kumar (2014).

The trendof land utilization among the farmers during Zaid season was found quitedifferent. It was noted that first fodder crops, ranked I, fol-

lowed by vegetables crops, pulses, cash crops and Cereals with II, III, IV and V rank respectively.

The scenario of land utilization by the farmers for other than crops was observed and it was found that cattle shed-I, home constriction-II, garage for farm machinery and equipments-III, storage-IV and threshing floor-V were the major aspects for which the land was utilized that might be remaining land after using for crops.

Table 2 further revealed that the farmers of the study area do less prefer for utilizing their cultivable land under fruit crops and flower crops as well as under irrigation ponds and canals and poultry yard.

Conclusion

Based on the findings of Table 2, it is that five most required crops in priority *viz;* Cereals, Pulses, Vegetables, Fodder and oilseeds occupied much of the land available cultivable land in the study area during Kharif and Rabi seasons other than crops, the remaining land was used for cattle shed, home constriction and garage.

Table 2. Sub-aspect wise prioritized Land utilization pattern among the farmers
n=150

S. No.	Land use pattern			MPS	Rank
A. Crops	Kharif		Cereal	78.93	I
			Pulses	73.60	II
			Oil seed	58.13	V
			Spices	54.40	VII
			Fodder	64.13	IV
			Fruit crops	52.00	VIII
			Vegetable crops	65.73	III
			Cash crops	56.27	VI
			Flower crops	46.67	IX
	Rabi		Cereal	82.40	I
			Pulses	71.47	II
			Oil seed	58.80	V
			Spices	52.53	VII
			Fodder	67.60	III
			Fruit crops	52.00	VIII
			Vegetable crops	63.60	IV
			Cash crops	56.27	VI
			Flower crops	47.47	IX
	Zaid		Cereal	53.73	V
			Pulses	64.27	III
			Oil seed	52.67	VI
			Spices	50.93	VII
			Fodder	73.60	I
			Fruit crops	48.40	IX
			Vegetable crops	68.27	II
			Cash crops	60.53	IV
			Flower crops	49.33	VIII
B. Other than Crops		1.	Cattle shed	69.60	I
		2.	Goat shed	53.60	VI
		3.	Poultry yard	47.87	VIII
		4.	Well/ Borwell	51.73	VII
		5.	Pond/Canal	45.60	IX
		6.	Home	62.67	II
		7.	Threshing floor	54.53	V
		8.	Storage	55.73	IV
		9.	Garage for farm machinery and equipments	56.80	III

MPS=Mean per cent score n= Total number of respondents

Recommendation

To motivate farmers for growing fruit and flower crops in the area with the supporting policies of government and also requirement for encouraging the poultry farming in the study area.

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