

Geographical study of the problems of land use and agriculture in Alwar district

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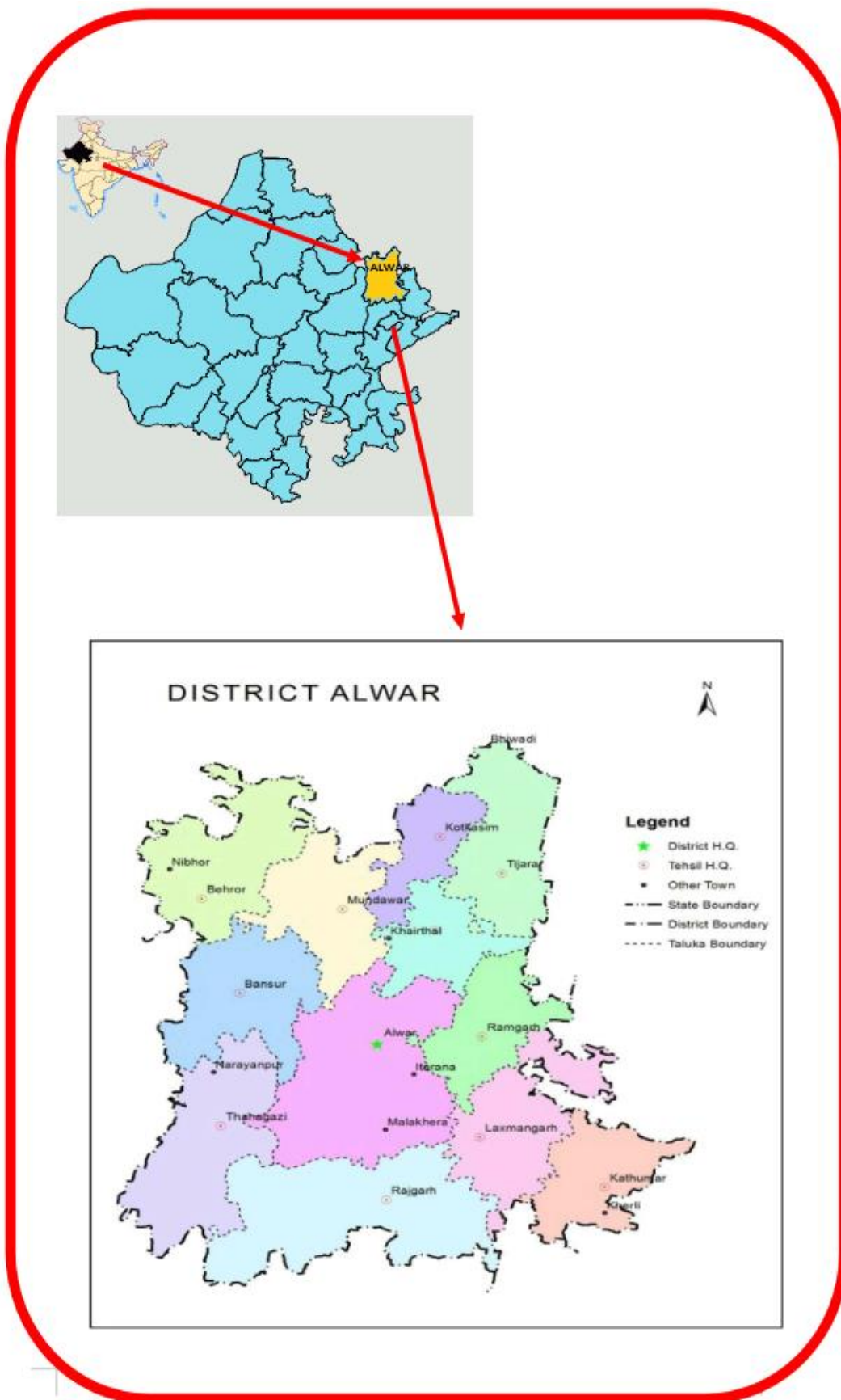
Abstract

To know what is the level of land use in the study area, Alwar district, one has to see with what tact and promptness the land use is being done, what is the state of land use, if the land use is at its optimum level. What are the possibilities of delivery? And what changes are expected? The extent of land resource utilization is actually based on the mutual activities or interrelationships of various factors. The combination of these facts at a particular time or place decides what is the efficiency of land resource utilization? The concept of land use efficiency is variable from the point of view that different productive elements are used in different quantities and types. The characteristics of the underlying land resource are less variable over time. Five elements of land use in Alwar district - agricultural land, uncultivated land, fallow land, actual sown area and forest land - were selected for study. On the basis of this, the problems of agriculture in Alwar district were studied and solutions were presented.

Keywords :- *Geographical situation, Land Use Of Alwar District, Problem of Land Use, Problems of Agriculture in Alwar District, Improvements and solutions in agriculture in Alwar district & Conclusion.*

Geographical situation of Alwar District :-

Alwar district has its own distinct physical and cultural identity in north-eastern Rajasthan. Alwar district is located in the north-eastern part of Rajasthan between 27°03' to 28°14' north latitude and 76°07' to 77°13' east longitude. Its North East. It is bordered by Rewari, Gurgaon district of Haryana state. Punjab borders it in the north and Jaipur district is situated in the west. Dausa district is situated in the south. The area of Alwar is 8382 square km. Its length from north to south is 137 km. And 110 km from east to west. The geomorphic structure of Alwar includes fertile alluvial plains, low altitude sand dunes and Aravali mountain ranges. The two main physical features of Alwar district are, firstly, the ancient folded mountains (Aravalli hill region) which is in the central part and secondly, the alluvial plain of Ganga-Yamuna which is spread in the eastern part of the district. The Aravalli mountain range starting from the south of Rajasthan especially affects Alwar. This range runs from south of Alwar towards north-east till Haryana, Delhi, but here this range is in the form of scattered small hills. Here agriculture is done on the flat plains situated between the valleys of the Aravalli mountain range. 55 percent of the land area of Alwar district falls in low land. Its maximum is in Behror, Bansur and Tijara, Kathumar tehsils while 300 m. to 450 m. 58 percent of the land area falls in height, which includes Laxmangarh, Mundawar Alwar, Kishangarhbas.



Objective :-

1. Study area: To study the land use of Alwar district.
2. Study area: To study the problems and solutions of agriculture in Alwar district.

Hypothesis :-

1. There is a change in agricultural land use in the study area, Alwar district.

Collection of data :-

Primary and secondary data have been used in the presented research paper. Primary data information was obtained from the respondents by making a questionnaire. Secondary information has been obtained from the Department of Land Use and Agriculture.

Land use of Alwar district :-

Land use in Alwar is a complex and diverse subject due to the vast size, diverse topography and diverse socio-economic conditions of Alwar district. The land use pattern in Alwar district can be broadly classified into the following areas:

Arable land

Alwar primarily has an agricultural economy, and a significant portion of its land is used for agriculture. Agriculture contributes to the livelihood of a large population and includes cultivation of crops, horticulture, floriculture and plantation crops. Major crops grown in India include mustard, wheat, oilseeds, cotton, millet, jowar, onion and vegetables. It is clear from the study of the table that in 2001 there was 17.37 percent agricultural land which decreased to 16.02 percent in 2001 and due to land reforms in the year 2021 it increased to 16.37 percent.

Table :- 1
Land use in Alwar district 2001 - 2021

S. No.	Land use Classification	2001		2011		2021	
		Hectare	%	Hectare	%	Hectare	%
1	arable land	136001	17.37	125516	16.02	128202	16.37
2	uncultivated land	33343	4.26	31084	3.96	27835	3.55
3	fallow land	27254	3.47	35456	4.52	51382	6.56
4	actual sown area	516602	65.98	507171	64.74	490476	62.64
5	Forest land	69697	8.92	84054	10.73	85899	10.97
Total Land use		782897	100	783281	100	782901	100

Source :- District Collector office Land Records, Alwar 2021

Uncultivated land

In this title, those lands are included which are used for buildings, roads, railways etc. Similarly, those lands which are under water flows, rivers or canals are also included in this category. Apart from this, other non-agricultural uses are also included in this category. Lands are also included under this. It is clear from the study of the table that in 2001, there was 4.26 percent uncultivated land, which decreased to 3.96 percent in 2001 and in the year 2021, the land decreased to 3.55 percent.

Fallow land

The land which remains uncultivated for one agricultural year or less is called current fallow land. Keeping land fallow is a cultural practice to maintain the quality of the land. With this method, the depleted fertility or nutritional value of the land is restored naturally. It is clear from the study of the table that in 2001 there was 3.47 percent fallow land which increased to 4.52 percent in 2001 and in the year 2021 due to improvement the fallow land increased to 6.56 percent.

Actual sown area

The land on which crops are grown and harvested. It is called actual sown area or net sown area. It is clear from the study of the table that the actual sown land was 65.98 percent in 2001, which decreased to 64.74 percent in 2001 and the land decreased to 62.64 percent in the year 2021.



Forest land

Forests play an important role in the ecological balance of Alwar and provide various environmental benefits. Forest land includes reserved forests, protected forests and unclassified forests. Alwar has a variety of forest types, ranging from tropical forests in the north-east to dry deciduous forests in central Alwar. It is clear from the study of the table that in 2001 there was 8.92 percent forest land which increased to 10.73 percent in 2001 and in the year 2021 due to reforms the forest land increased to 10.97 percent.

Barren land

Some areas in Alwar district are classified as barren lands, which are not suitable for agriculture or other productive purposes. Efforts are being made to reclaim and restore these barren lands for productive use through initiatives such as afforestation and land rehabilitation programmes.

Urban land

As Alwar district experiences rapid urbanization, the demand for urban land has increased significantly. Urban land is used for residential areas, commercial centres, industrial areas, infrastructure development and institutional purposes. The city in Alwar is expanding, and urban sprawl is changing land use patterns in many areas.

Industrial land

With industrialization and economic development in Alwar district, industrial land has become necessary for setting up manufacturing units, industrial estates, special economic zones (SEZs) and industrial parks. Industrial activities are concentrated in certain areas and contribute to employment generation and economic growth. The fishery industrial sector in Alwar district plays an important role in this.

Rural settlements

Rural land, including villages and small towns, in Alwar district is used for housing. It is used by rural communities engaged in agriculture, animal husbandry and other rural-based occupations. Rural settlements also include pasture land and common property resources used by rural communities.

Agricultural problems in Alwar district

India's economy is one of the five strongest economies in the world. India is regularly writing new development stories in other areas also. Despite these achievements, there is one area which is still lagging behind in the race of development. The agriculture sector, which plays an important role in areas like food security and rural employment, has still not reached a situation that can be considered satisfactory. The result of this is that crores

of people of the country dependent on agriculture are still forced to live in extreme poverty and many times they are not able to fulfill even their basic needs through agriculture. Similarly, in Alwar district too, there are some problems at the root of inadequate development of agriculture, without removing which development of agriculture is not possible, these problems are as follows:

1- Most of the farmers in India lack/shortage of capital to invest in agriculture. Even today, most of the farmers of the country are not able to avail the benefit of institutional credit facilities in practical terms. Many times farmers do not even have enough capital to arrange for basic things like seeds, fertilizers and irrigation. The result is that farmers are not able to produce crops on time or due to insufficient nutrients the crops are not of adequate quality. Besides this, due to lack of capital, the farmer has to take loans from private individuals at high interest rates, which increases his problems instead of reducing them. In this regard, the Kisan Samman Nidhi Scheme launched by the Government of India is proving to be very helpful for the farmers. This helps to a great extent in meeting the basic agricultural needs of the farmers.

2- There is still lack of irrigation facilities in most parts of India. Only those farmers who have sufficient capital are able to manage irrigation facilities privately because the cost of installing irrigation equipment like tube wells is so much that it is not possible for poor farmers to afford it. In this way, most of the farmers become dependent on monsoon and if there is no timely rain, their crops get spoiled and sometimes they are not able to produce enough for subsistence. Similarly, due to excessive rainfall or various natural disasters, crops get spoiled and the farmer gets trapped in the quagmire of poverty.



3- A large population of farmers in Alwar district has very little amount of cultivable land available. A major reason for this is the increasing population. As a result, agriculture has become a means of subsistence rather than a means of earning profit for the farmers, in which they are somehow able to support themselves and their families. Study area: Agriculture sector in Alwar district is also facing the problem of hidden unemployment.

4- Farmers often do not get adequate price for their produce, a major reason for this is that they sell their crops at prices lower than the Minimum Support Price (MSP) for various reasons such as to repay loans. Due to which they have to face a lot of loss.



5- Some other reasons include lack of use of modern equipment and techniques in agriculture, lack of transportation facilities, lack of storage facilities, lack of transportation facilities, lack of other basic facilities and poor quality of soil. Problems like shortage etc. are included.

Improvements and solutions in agriculture in Alwar district:-

Rajasthan government is working on a 7-point strategy for reforms in this sector and doubling the income of farmers.

1- Per Drop-More Crop Strategy – Under this strategy, emphasis is being laid on micro irrigation. This will reduce the amount of water used in agriculture, this will not only conserve water but will also reduce the cost of irrigation. This strategy is particularly beneficial in water-scarce areas.

2- Emphasis is being laid on using high quality seeds in the agriculture sector and also awareness is being spread to use the same amount of fertilizers in the fields as is appropriate according to the soil health card. Is. This will improve the quality of the soil and will also effectively reduce the expenditure on fertilizers. This will also reduce soil and water pollution.

3- To prevent agricultural produce from getting destroyed, investment on warehouses and cold storage is being increased. This will prevent wastage of produce, strengthen the food security situation and the remaining produce can also be exported to international markets.

4- Value addition in agriculture sector is being promoted through food processing. There is immense potential in the food processing sector in India.

5- Emphasis has been laid on the creation of a national agricultural market to ensure fair price for the produce. This will bring uniformity in prices across the country and farmers will be able to get adequate benefits.

6- Every year in Alwar district, crops are adversely affected due to natural calamities like drought, fire, cyclone, heavy rain, hailstorm etc. in different areas. To reduce these risks, crop insurance has been made available at affordable prices. Although its actual benefits have not yet reached enough farmers, measures should be taken to ensure that its benefits reach most of the people.



7- Through various schemes, emphasis is being laid on the development of agricultural supporting sectors like dairy, animal husbandry, beekeeping, poultry, fisheries etc. Since most of the farmers of Alwar are already connected with these things, they can get direct benefits from it. There is a need to work effectively on factors like awareness, breed improvement of animals.

Conclusion:-

From the study of land use of Alwar district, it is clear that there has been a lot of change in agricultural land use here. From the detailed study of land use area of Alwar district, it has been concluded that a clear trend of change has been found under various points of classification of agricultural land use. In this change, mainly the trend of decrease and increase has emerged. Crop intensification is important for sustainable and efficient land use, increasing agricultural productivity, improving farmer income, reducing risks and promoting food security in Alwar district. This requires proper crop selection, efficient resource management, access to credit and markets, and supportive agricultural policies and infrastructure. In conclusion, land use patterns in Alwar differ across states and regions due to variation in climate, geography and socio-economic factors. The government plays an important role in land use planning, regulation and implementing policies to balance development and environmental protection. Land reforms have been implemented to resolve issues of land distribution, tenancy, and access to agricultural land in Alwar district. The objectives of these reforms were to provide land to landless farmers, eliminate middlemen, and promote equal land ownership. Agricultural land use patterns in Alwar are influenced by factors such as agro-climatic conditions, government policies, technological progress, market dynamics and socio-economic context. The government plays an important role in implementing and supporting policies to increase agricultural productivity, promote sustainable practices and improve the welfare of farmers. Since most of the population of Alwar district is dependent on agriculture, poverty alleviation, Increase in employment, eradication of hunger etc. is possible only when the condition of agriculture and farmers is improved. If the above measures are implemented effectively then the condition of agriculture can definitely improve. This will reduce the despair prevalent in this sector, farmer suicides will stop, and people who have given up farming will start taking interest in this sector again.

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