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Problems of Agriculture in Doda District

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ABSTRACT

Agriculture is one of the most important economic activities practiced in the country as well as in Jammu And Kashmir State since time immemorial. It's simply means rearing of plants and animals. It is also considered as a backbone of the economy. The state is also an agricultural state where most of the people are directly or indirectly dependent on agriculture. It contributes nearly 60% of the state revenue which satisfactorily explains the over dependence of the state on agriculture. About 92% of the geographical area of the state consists of high mountains and only 5% of land is available for cultivation. Over 27% of the total area of the state is under forests. Permanent pastures cover 5.16% of the area, 14% of land is non-agricultural and a slight more 9% is barren land. "The state has been declared as agriculture export zone for apples and walnut." Doda district constitutes as one of the agricultural based region of the state. As compared to other districts Doda has some unique geographical characteristics which make it different from rest of the state. It has very rugged and mountainous terrain and uneven topography. The area can also be called as the land of lofty mountains, deep gorges, valleys and meadows, showing great variation in elevation. The district includes Greater Himalaya, Lesser Himalaya and Pir Panjal ranges which are interwoven by numerous small forested hills leaving a limited space for cultivation. Except for Chenab and small river valleys, the topography of the district is mountainous and forested and many areas are covered with snow during winter season. The district includes a few plain and low level areas with a minimum height of 740 meters. Instead of all these obstacles the practice of agriculture are still carried out and is relevant theme for discussion.

KEYWORDS: *Agriculture*, *valley*, *topography*,*Jammu And Kashmir etc*

INTRODUCTION

Agriculture is the mainstay of the Doda district, most of the people lives in rural area and typically subsistence agriculture is practiced. The chief occupations of the working force are cultivators, agricultural laborers, livestock rearing, building construction, trade and commerce. The study area lies in the outer Himalayan range in Jammu & Kashmir state spread between 32°-53′ and 34°-21′ north latitude and 75°-1′ and 76°-47′ east longitude. It lies in eastern part of state. The District is bounded by Anantnag district in north, Kishtwar in north-east, Kathua and Udhampur in south and south-west, Ramban in west. Chamba area of Himachal Pradesh falls in the south. The total geographical area of the district is 8912 Sq.Km. the population of the area is 4, 09,936 persons, the district ranks 13th among all districts of the State. The District has its own history and cultural matrix comprising people from different ethnic, religious, cultural, linguistic and social groups. It is said that one of the ancient Rajas of Kishtwar whose sphere of influence was extended beyond Doda swayed one utensil maker Deeda, a migrant from Multan (now in Pakistan), to settle permanently in this territory and set up a utensil factory. Deeda is said to have settled in a village which later on came to be known after him. With the passage of time the name Deeda has changed into Doda, the present name of the town.

The population density per Square Kilometer is just 46.the district has 12 Tehsil 428 villages and 79,636 households. Major chunk of population lives in rural areas and drive their subsistence pattern and livelihood from agriculture and allied sector. Major crops of the district are Maize, Paddy, wheat and barley, pulses especially (beans), vegetables, spices, marigold and mushroom. The present average productivity of major crops of maize, paddy and wheat is 17.50, 18.00 and 17.45 quintals per hectare respectively.

OBJECTIVES

Agriculture constitutes one of the important theme or area of research in the region. In this regard the paper will study the landscape of District in general and agriculture in particular. The study is based on the following objectives;

1. To highlight the problems of agriculture in doda district.
2. To study the land use as well as cropping pattern of the study area.
3. To study the area in terms of agriculture in context of Jammu and Kashmir.
4. To highlight the contribution of agriculture of the district in the state.

METHODOLOGY

The data for the present study is based on both primary and secondary sources. Primary data has been collected through survey reports (census records) collected from different departments concerning the agriculture and allied sector. Secondary data has been collected from books, both published and unpublished research article, journals and internet based data. The present study is analytical and empirical in nature. The data has been analyzed and interpreted through tabulation and percentage methods in a way to suit the study.

AN OVERVIEW

Like other districts of Jammu and Kashmir agriculture is mainstay of economy for the people of Doda district. The total geographical area of the district is 91374 ha out of which the total gross cropped area of 0.51 Lac ha and net cultivated area of 0.24 Lac ha with irrigated area totaling to 0.04 lac hectares, sustaining 79636 families, is lagging way after the nationwide yield level of all the major crops grown in the district. The main reasons related with the small output and productivity can be recognized to the rain fed farming pooled with resource poor farming population having an unfavorable position to opt for the changing want

and preferences for mitigating the production anxiety. The main stay of Doda district of Jammu is mostly agriculture as around 90% of the population is rural and directly or indirectly dependent on the agriculture and allied sectors and thus constitutes the main source of livelihood. Due to variation in climate, there is variation in crop production in this hilly district of the state. The places with temperate climate i.e. Bhaderwah and Gondoh (bhalessa) is characterized by relatively mild but dry summer with little monsoon and fairly cold wet winter with maximum snowfall due to western disturbances. It is mostly a mono cropped zone with low production and productivity. This area is also suitable for cultivation of variety of vegetable crops, apples, walnut and pulses. The places with subtropical climate i.e. Doda, Thathri and kahara are drought prone, having mild summer, fair monsoon during summer and relatively wet winter. The places like Assar, Malanoo in kahara, puranoo, Ghata, sartingal, chinta, Ghat in doda are highly suitable for vegetable production. Assar is the only place in the district which has the highest production and productivity which fulfill the needs of the people of the district as well as of the adjoining areas.

LAND USE PATTERN OF DODA DISTRICT

S.NO.	PARTICULARS	AREA
1	Total geographical area as per village papers	4500 Sq Km
2	Net area sown(Kharif + Rabi)	51782 Ha
3	Area under food crops(Kharif + Rabi)	48708 Ha
4	Area under non-food crops(Kharif + Rabi)	4611 Ha
5	Total area sown more than once(Kharif + Rabi)	25891 Ha
6	Area not available for cultivation	32053 Ha
7	Total no. of holdings	108977
8	Chemical fertilizers(Urea, DAP,MOP)(Kharif + Rabi)	19624 Qtls.
9	Total quantity of food grains produced(Kharif + Rabi)	622050Qtls.

Source: comprehensive district plan doda.

LAND UTILIZATION OF DODA DISTRICT

S. NO.	PARTICULARS	AREA IN HC
1	Reporting Area For Land Utilisation Statistics	187797
	Forests	100209
2	Not Available for Cultivation Area under Non Agricultural Uses Barren and Un Culturable Land	30271
3	Other Uncultivated Land Excluding Fallow Land Permanent Pastures and Other Grazing Lands Land under Misc Tree Crops and Groves Not Included in Net Area Culturable Waste Land	15910
4	Fallow Land – Fallow Lands Other than Current Fallows Current Fallow	10826
5	Net Area Sown	30581
6	Total Cropped Area	39534
7	Area Sown More than Once	8953

Source: Doda diary a comprehensive district plan voi.1.

CROP VARIETIES GROWN IN DODA DISTRICT

S.NO.	SEASON	CROPS	VARIETIES
1	Kharif	Paddy	Giza-14, Shalimar, K-448,Japan-1561
		Maize	Kanchan, KH-517, Kanchan KH-612, ProAgro-4794,Sri Ram Bio-9621, Dekalb Double, DMH 7314, Bisco Ujjala, PAC 781, PAC 740
		Pulses	Mash PU-19, Moong PS-16,
		Fodder	S.S.G Cherry,Jowar, M.P.Cherry
2	Rabi	Wheat	PBW-175, PBW-343, RAJ-3077, RAJ-3765 PBW-226, PBW373, PBW-502
		Oil seeds	Mustard KS-101, KOS-1, Pusa Bold, Gobi Sarsoon GSL-1, Toria Local
		Pulses	Gram C-235, Lentil K-75, Peas Rachna
		Fodder	BarseemBL-1/Muscavi,Oats Kent Sabzar.

Source: District fact book doda.

PROBLEMS OF AGRICULTURE IN DODA DISTRICT

Agriculture in the region is grappling with the number of problems, which hamper both the productivity as well as production. There is not single factor which is held responsible for the slowdown of agricultural practices. As mention above the terrine and topography in the region is uneven, presence of mountains and hilly tracts makes the region less suitable for agriculture. This major problem is accompanied by the number of factors which prove fatal for the development of agriculture in the district.

The agricultural pattern is strictly dependent on the geo-ecological conditions as one of the major problem in the growth of agriculture in the district is undulating slope, most of the area is covered with mountains, hills and peaks which are not suitable for the cultivation of crops. Occurrence of boulders in the fields and a Steep slope causes quick run off and offers least opportunity time for recharging ground water. Small hills and plateaus are managed with the terraces but due to landslides and gully erosions these land strips gets destructed.

CLIMATE

Climate is one of the most important factor for the growth of agriculture in any region on the earth surface. Climatic conditions like temperature, rainfall, drought, snow and winds are the most important determinants of agricultural land use and cropping patterns. The area is falls under the harsh climatic conditions, most of the area remains under the snow cover during the winter season. The minimum temperature for wheat and maize is 5 and 10 degree Celsius but Due to very low temperature these crops does not grow. The district has been divided in to two climatic zones that is temperate zone including Bhadrawah and Bhalessa and adjoining areas characterized by relatively mild but dry summer with little monsoon and fairly cold wet winter with maximum snowfall due to western disturbances in the winter season. The other climatic division is subtropical climate includes Doda, Thathri and kahara are drought prone, having mild summer, fair monsoon during summer and relatively wet winter. Average rainfall in district Doda is very low among the other districts of Jammu division. Due to low average annual precipitation, the whole of district Doda has been declared as Drought prone Due to all these climatic variation the area has low production and productivity in the agriculture.

SOILS

In agricultural operations, soil plays an important role in determining the physical factors. It determines the cropping pattern and production of the area. The soil of the district is almost loose and sandy with very low moisture. There is also the variation in soils, different places have different soils. Like Bhaderwah valley has a soil which is mostly suitable for paddy cultivation. Soils in Thathri and doda area are maize oriented. Assar area is suitable for vegetables. Although soils are suitable for agriculture but there is problem of very small land holding. These soils are very rich in humus but are deficit I potash, phosphors and lime. Therefore they require good deal of fertilizers for high yields. The incidence of soil erosion is very high, landslides and land degradation always happen and road blockade is frequent during the rainy season on the National Highway at different places; namely Batote to Doda, Doda to Thathri and from Thathri to kishtwar. These places are famous for fall of slides during the rainy season and cause problem to everybody.

SUBSISTENT AGRICULTURE

Most of the people of the area are dependent on agriculture and allied activities to earn their livelihood. The farmers and cultivators of the districts cultivate small and fragmented land with the help of plough and family members. They use simple tools and traditional techniques, modern farm implements are practically absent. Farmers are too poor to purchase high yielding verity seeds and better fertilizers as a result of which the productivity is low. People grow crops for their family consumption over which, when what's left (surplus) they sell to the locals. Due to lack of infrastructure like road and transport irrigation facilities, electricity and credit agriculture is still badly lacking.

RAIN FED AGRICULTURE

The district has been declared as drought prone, Agriculture in the region is dependent on rainfall which is the only source of irrigation in upper reaches of the district. The behavior of the rainfall in the district is highly erratic which results droughts in the area. The concentration of rainfall in the region is 144 mm but due slope the rain water washed over. Only 2.77 hac land is under irrigation which is more or less negligible.

TRADITIONAL BOUND

People of the district, especially in the rain fed areas use drought animals like bullocks for ploughing and other agricultural operations. The health and efficiency of the bullocks is low which often retard the timely operations of sowing, weeding and harvesting. They also use crude and primitive agricultural equipments which require huge manpower and are quite laborious. These tools include plough (Iron and wooden) and other digging equipments in the agricultural fields. The mind setup of the people towards the cropping pattern is unscientific which results low productivity. By and large, the agriculture in the district is traditional bound and labor oriented.

SOIL EROSION AND LAND DEGRADATION

Soil erosion is universal phenomenon, it is, however, significantly high in the areas of heavy rainfall with undulating topography and in the areas of scanty rainfall in the district. During heavy rains, water removes a lot of soil; high speed of raindrops washes away the top soil. The courser particles are not shifted about as much because of their greater volume and weight. The arbitrary felling of trees, grazing by cattle's, transhumant activities, unscientific land use practices and others have largely accelerated the rate of soil erosion. Due to the clearness of forests in the district heavy floods occurs which results the destruction of fertile land along the river courses affecting the crops, livestock, and other property adversely.

SMALL AND FRAGMENTED LAND HOLDINGS

Geographically, the district has overall 91,374 ha area, the total number of holdings is 1, 08,977 and the total Cropped Area is 39,534, hectare and Net Area Sown covers 30,581 hectare. The whole land has been divided in to small and fragmented land strips. The size of the land holding is very small and is even decreasing day by day with the division of land holding passing with each generation. It has become the serious issue in the densely population, especially in plain areas of the district because of spreading population. The main reason behind the small holding is law of inheritance. The land belonging to the father is equally distributed among his sons. This distribution of land does not require a collection or consolidated one, but its nature is fragmented. The small and fragmentation of land is become the cause of low production and productivity in the district.

SEED PROBLEM

For rich agriculture production, seed is considered as one of the basic inputs. In doda district the cultivators are still using the traditional seeds in their fields which intern provides low productivity. The main reason behind this is the good quality seeds do not reach majority of the farmers especially

small farmers. Another reason is that the small farmers are too poor to earn good quality seeds. The land in the region is mostly mountainous and the soil is sandy, most of the area is drought prone which does not supports high yielding verity seeds. As the HYV seeds require a lot of moisture and fertilizers and other better inputs for growth.

IRRIGATION PROBLEM

Irrigation is one of the most important agricultural inputs for the growth of agriculture. The district is considered as drought prone where the rainfall is highly erratic and uncertain. The district cannot progress in agriculture until and unless more than half of the cropped area is brought under assured irrigation. At present only 2.777 hectare cropped area is under irrigation which is too small as compared to other district of the state. Digging of irrigation canal is another obstacle as the region is hilly and dangerous there is need of concrete canals. However the government has stared irrigation projects to comeback the irrigation problem but due less maintenance and low credit these projects remains on the mid way. For example a Kandi canal project for irrigation now in kahara block, was started in 2007 by congress government which remains on the middle due to the failure of company.

OTHER PROBLEMS

There are numbers of minor problems which becomes the barrier in the growth and development of agriculture in the region such problems are scarcity of credit facilities, absence of new and modern agricultural equipments, lacking of organized institute for the awareness programs, low level of interest among the people towards agricultural sector. Small output from the agricultural fields, absence of proper Government policy towards the region and also requirement of market facility in the district, i.e. imbalance between backward and forward linkage.

CONCLUSION

Agriculture constitutes backbone of economy in any part of the world. Hence it plays pivotal role for the people of Jammu and Kashmir in general and Doda in particular. Doda being an agricultural district of state comes up with its own set of advantages and disadvantages. To create an environment which address the above mentioned issues/problems and result the agricultural transformation. These problems require long term sustainable solutions and minimize the hindrances which hamper the growth and development of agriculture. Uneven topography because of Hilly lands with steep slopes, Occurrence of boulders in the fields, variation in rainfall, Steep slope causes quick run off and offers least opportunity time for recharging ground water. Farmers in majority still using the traditional seed which are not hybrid remains a key area as well as factor for low production. Shortage of fertilizers during cropping season equipped with the low level of technology, Imbalanced fertilization, and unscientific method of cultivation. Low investment in the research development programmes, and less input in agricultural sector which is abysmal.

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