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## **Problems and Agriculture Land Holding Pattern among BPL Households in Hill Rural Areas: A Study of Pauri District of Uttarakhand**

**Ajay Kumar Salgotra**

*Research Scholar, Department of Economics, HNB Garhwal University (A Central University), Pauri campus, Pauri Garhwal, Uttarakhand, India*

### **Abstract:**

*This paper deals with the distribution pattern of land and its problems of indifferent size of holding among the BPL households. The present study has confined to only 360 BPL households which extract from six blocks of Pauri-Garhwal district of Uttarakhand. Disproportionate Stratified random sampling method has been applied to extract the sample. The investigator used self made questionnaire to conduct the data. For drawing inferences investigator employed percentage and Lorenz curve as statistical techniques. This paper revealed that gap between cultivated agriculture land and uncultivated agriculture land in Hill Rural Areas of Uttarakhand state of India Country has widening day by day which indicates that dominance of marginal and small farmer has risen in this region.*

***Keywords: Below Poverty Line Households, Rural Hill Areas, Land Distribution, problems of Agriculture.***

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**Introduction:** A distinct feature of economic growth in India relates to increase in regional inequalities over the last five and half decades of development planning (Bhattacharya and Shakthivel 2005). Uttarakhand is a hill state of India; it has its own set of problems and potentials due to its geographical setting. The natural and geographical setting which offers most of natural resources but on contrary also offers tough working and living condition for their inhabitants. This makes constraints in the way of economic development and growth. This Hill economy has continuous to be depressed and backward in relates to other regions in the terms of development. Isolation and remoteness in hill areas have long preserved the depressed economic conditions and decelerated the rate of economic development (G.C. Pande1983). This is despite the fact in the form of poor development of Secondary and tertiary sector in this region. Further these constraints leads to poor infrastructure development such as lack of transport facilities, lack communication facilities, lack of infrastructure, lack of basic amenities of life and other opportunities as compared to other regions. This in turn large scale out migration of able-bodied youth, mainly educated males

from the region of Uttarakhand. Out migration still remains a major household strategy to support livelihoods in the rural areas of the state (Mamgain, 2004; Mamgain et al., 2005). Lastly Primary sector (Agriculture and allied activities) is available for the workforces but social and economic vulnerability of this sector in hill regions is reflected in the form of uneconomical operational landholdings, dependence on monsoon, lack of infrastructure, low productivity, dominance of small and marginal farmers etc. The Situation Assessment of Surveyed of farmers get from crop cultivation is not enough to manage the cost of cultivation across different states in India (NSSO, 2005; Deshpande and Prabhu, 2005; Narayanamoorthy, 2006a and 2006b; Reddy and Galab, 2006). Fragmentation of agriculture land is one of the measure problems facing most states. In case of Uttarakhand, as of 1995-96, almost 72 percent of the land holdings were of size less than one hectare and such holding together account for 27 percent of the total area. Five percent of the cultivated area had large size land holdings (10 hectare or more), which formed about 0.2 percent of the total number of land holdings. 50.5 percent of the cultivated area had holdings of size between 1-4 hectare, which accounted for 25 percent of the total number of holdings. In Uttarakhand, fragmentation of land is worst than all India. Only 44 percent of the total cultivated area in Uttarakhand of irrigated. In addition, absence of surface irrigation creates problem in replenishment of groundwater making farming sensitive to rainfall (Planning commission report 2009). On behalf of above discuss, this paper examines the problems and agriculture land holding among the BPL households of Hill rural area of Uttarakhand.

### **Objectives:**

1. To work out distribution of land among the BPL households in the Hill rural areas of Uttarakhand.
2. To analysis the land use pattern among the BPL households in the hill rural area of Uttarakhand
3. To Examine the problems of agriculture land in the hill rural areas of Uttarakhand.

### **Research Methodology and Study Area:**

**Study Area:** The Present Study has been conducted in the hill rural areas of district Pauri Garhwal spread within a geographical area of 5,230 sq.km in Uttarakhand state. According to the 2011 census provisional data 83.59 percent of the total population of the Pauri Garhwal district resides in rural areas. Census of 2011 further showed that majority of population residing in rural areas of the district is of females, while males constitutes 46.6 percent of the total rural population the female comprised of 53.4 percent. In the urban regions of the district the male population was larger than that of females. Pauri Garhwal is one of the two district in Uttarakhand which have recorded negative decadal growth rate but the urban growth rate in these two districts registered positive growth rate (Source: Census of India, 2011) which is indicative of an increasing trend of urbanization.

The present study focuses on studying the BPL households of hill rural areas of district Pauri Garhwal in Uttarakhand state. The total numbers of BPL households in hill rural areas in Pauri Garhwal district are 60909. Among which 14504 belongs to Schedule caste and

331 belong to Schedule Tribes category. (Data Source and year: Rural Development Department, State Government, Uttarakhand, Year-2009).

**Sampling Method:** The disproportionate stratified random sampling method has been adopted for the study. The stratified sampling are focus on including all the caste category households i.e. General, OBC's, SC's, and ST's of BPL households.

**Sample Number:** For the proposed study out of fifteen development blocks of district Pauri Garhwal randomly six (6) development blocks has been selected. Out of each development block randomly four villages has been selected for the study. Out of each village a minimum of 15 BPL households are randomly selected. So a minimum of 360 households were studied for meeting the objectives of the study.

**Methods of Data Collection:** A comprehensive questionnaire was prepared and used for the primary data collection. Observation method and indirect oral investigation methods were also be utilized for the study.

**Statistical Techniques:** For Analysis of data percentage method and Lorenz curve were used in the present study.

**Analysis and Results of Study:**

**Table no 1- Distribution of Agriculture land holdings**

Size of Land Holdings	No. of Households
Upto 500 sq mt	121(33.61%)
501 to 1000 sq mt	106(29.44%)
1001 to 2000 sq.mt	73(20.28%)
2001 to 3000 sq.mt	24(6.67%)
Above 3000 sq.mt	36(10.0%)
<b>Total</b>	<b>360</b>

**Source: Primary Survey 2015-16**

Note: 1000 sq. mt. = 0.247105 arc

The above table reveals the distribution of the BPL households by the size of agriculture land holdings in the surveyed villages. It was evident from the table that majority of BPL households which possess land upto 500 sq. mt. constitute 33.61 percent, while only 10 percent BPL households have land more than 3000 sq. mt. According to Dr. Stamp (1955) “assumed that one arc of well-cultivated land in the multitude is sufficient to produce an adequate diet for one person”. It is clearly depicted from the table that the majority of BPL households were marginal land holders which reflects that uneconomic and insufficient holdings in the surveyed villages.

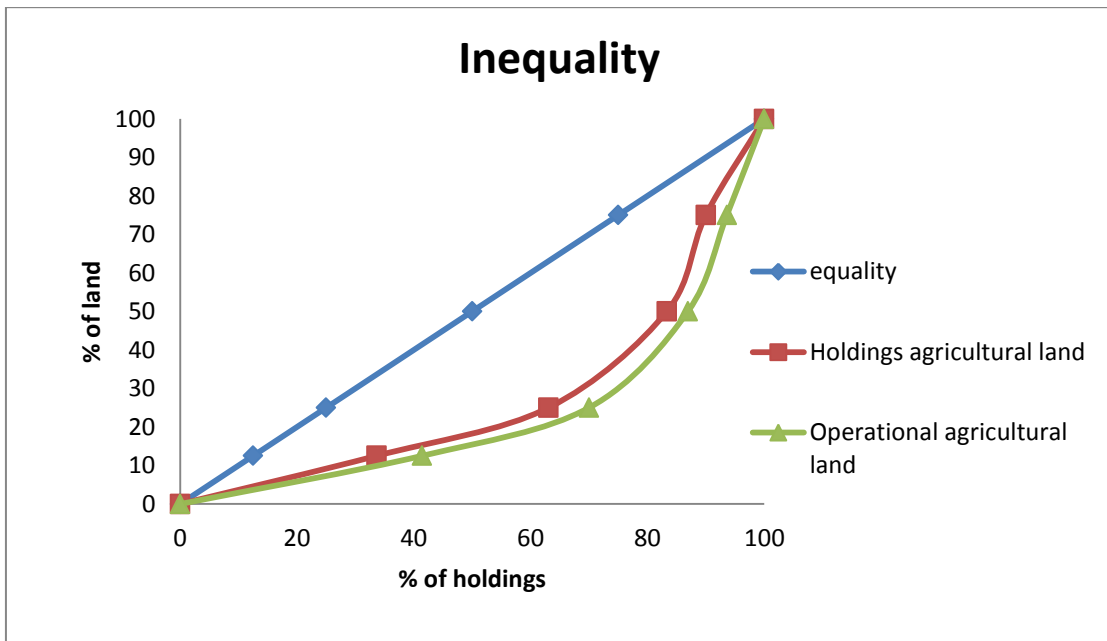
**Table no:2- Distribution of operational land holdings**

Size of holdings	No. of Households
Up to 500 sq. mt.	149(41.39%)
501 to 1000 sq. mt.	103(28.61%)
1001 to 2000 sq.mt.	61(16.94%)
2001 to 3000 sq.mt.	24(6.66%)
Above 3000 sq.mt.	23(6.39%)
<b>Total</b>	<b>360</b>

**Source: Primary Survey 2015-16**

Table no: 2 reveals the size of operation agriculture land holdings in the surveyed villages. Majority of households holds operational agricultural land upto 500 sq. ft. which constitute 41.39 percent and small group of households holds operational agricultural land more than 3000 sq. mt. The reason for marginal and small in this region is fragmented and scatted land holdings.

**Figure 1: The Lorenz curve and the Equi-distribution line:**



The shape of the Lorenz Curve indicates that land inequality is high among BPL households in between holding agricultural land and operational agricultural land. The results of Lorenz curve indicated that land inequality is more in operational agricultural land in comparison to the land holdings and the value of Gini coefficient (i.e. .367 for operational agriculture land and .293 for unoperational agriculture land) is also support the results of Lorenz curve.

**Table no 6- Problems faced by the BPL households in agriculture**

S. No	Nature of Problem	No. of BPL households	Percentage of BPL households
1	Lack of Irrigation facilities	265	73.61
2	Animal encroachments	290	80.55
3	Small agriculture land holdings	235	65.28
4	Lack of finance	157	43.61
5	Lack of resources for agriculture use	307	85.28

**Source: Primary Survey 2015-16**

The above table shows the major problems which was faced by the BPL households in this hill region. Lack of agricultural resources, lack of irrigation facilities and animal encroachment are the major hurdle in the way of agriculture development in this hill region and which majorly affects the productivity of agriculture. Other problems which are faced by households are small agriculture land holdings and lack of finance.

**Table no 5- Irrigation facilities for the Agriculture land**

Status of irrigation facility	No. of Households
Very good	0
Good	6(1.67%)
Average	13(3.61%)
Poor	4(1.11%)
Not available	337(93.61%)

**Source: Primary Survey 2015-16**

This study shows that the majority of BPL households have not any source of irrigation. Only 23 households have irrigation facilities, in which only 3.16% households got good enough irrigation water supplies and other have average and poor irrigation facilities. The major reason for lack of irrigation facilities is geographical location which creates problem in replenishment of groundwater making farming sensitive to rainfall

**Conclusion:** Agriculture and allied activities are although poorly developed in these regions but still it holds a significant position in these regions. This importance of agriculture is reflected by the present study which shows that majority of the BPL households in these regions are engaged in them and occupies agriculture land. Agriculture is carried out by majority of the households but it is mainly for subsistence of the members of these households.

This study reveals that majority of BPL households is marginal land holders which reflects that uneconomic and insufficient holdings which not be able to cover the subsistence needs.

This study also reveals the difference between the actual agriculture land holding and operational or cultivated agriculture land. The results of Lorenz curve indicated that land inequality is more in operational agricultural land in comparison to the land holdings.

Even after holding an important status the agriculture was entrapped in large number of problems which enhances the problems of the households which depend on the agriculture. Encroachments made by wild animals in the agriculture land and lack of irrigation facilities are the major problems in this region revealed in the study.

**Policy Issues:** Development of Irrigation facilities in this region is a prior priority. Small and scattered land with irregular shape is the main barrier in the utilization of surface water so it has proper implementation of watershed programme in this hill region.

Use of horticulture: Grow horticulture Crops on that agriculture land which act as uncultivated land.

Establishment of food processing units, dairy product units and agro based industries in the hill region which provide affordable employment opportunities to the villagers.

Substitution of high productive and high value crops in their cropping pattern from which farmer able to enhance their agriculture productivity and income sources.

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