

KEYWORDS: Social survival, Land use pattern, food security, share cropping

sufficient land for agriculture engage in share cropping with other Chakma families and local Arunachali tribal groups.

1.INTRODUCTION AND BACKGROUND OF ARUNACHAL CHAKMAS

The Chakmas of Arunachal Pradesh is belonged to a tribal group which has for centuries inhabited the Chittagong Hill Tracts (CHT) of Bangladesh (earlier East Pakistan). After the partition of the country, the Chakmas who remained in East Pakistan (present Bangladesh) were displaced massively. The displacement was primarily due to the construction of the Kaptai hydroelectric project over the river Karnaphuli in the year 1962. About forty per cent of the agricultural land of CHT was submerged due to this dam. Thus, the dam displaced about over one Lakh indigenous people comprising about one -third of the total indigenous Chakma people who were forced to evacuate the designated area. An added reason for their displacement was that the religious persecution by the Pakistani authorities and blending the ethnic Mongoloid Chakma community with the Bengali Muslims (Kamduk, 2016).

Finding no shelter, the Chakmas along with other communities had left the CHT of East Pakistan and took shelter in India as refugees and they took refuge in Arunachal Pradesh, Tripura and Mizoram (Das &Rahman, 2015). The Chakmas arrived in Arunachal Pradesh in the year 1964. Till the end of 1970s, Chakmas accessed all the rights of Indian citizens in Arunachal Pradesh, but, soon after, North Eastern Frontier Agency (NEFA) became a Union territory in 1972 and fullfledged state of Arunachal Pradesh in 1987, the host tribal communities began to pressurise the Central Government for the repatriation of Chakmas. But, the Chakmas in Arunachal Pradesh still continuing as stateless people and Chakmas in other States got Citizenship rights and are availing all Government facilities and participating in voting process. Chakma population is still seems to be hidden or unknown since the Government is unable to bring out satisfactory solutions towards the Chakma issues. According to the Special Survey Report of Chakma and Hajong population 2010-11 by Government of Arunachal Pradesh, the total population of Chakma and Hajong in Arunachal Pradesh is 53721.

2.METHODOLOGY

The Chakmas are settled in four main districts-Changlang, Namsai, Table 01: Average Land Holding in the Study Villages Lohit and Papumpare in the State of Arunachal Pradesh. The study focuses on the six villages each in Miao and Bordumsa subdivisions of Changlang district. The researcher covered one respondent each from 360 Chakma families. Detailed households survey and focused group discussions are conducted in the study villages. Chakma families residing in Bordusma and Miao subdivision in Changlang district are identified as the unit of the study. Both quantitative and qualitative data are collected and bivariate analyse is done to examine the relationship between land use pattern and household food security. Household's food security accessing scale of USAID is used in the research to analyse the household food security of 360 Chakma families.

3.RESULTSAND FINDINGS

3.1.Land Use Pattern in the Settlement Areas

In the year 1964, North East Frontier Agency (NEFA) decided to provide settlement to Chakmas and Hajongs who reached North East India from Chittagong Hill Tracts (CHTs) of Bangladesh. During 1964-1969, approximately 2902 Chakma and Hajong families were settled in NEFA, present day, Arunachal Pradesh, in three districts of Lohit(Now Lohit and Namsai), Tirap (present day Changlang) and Subansiri (present day Papum Pare). CCRCHAP(2012) described that by accepting the new comers as refugees, plots of land varying from 5 to 10 acres per family (including 3 to 5 acres of land on an average for cultivation) depending upon the size of family, were allotted to Chakma and Hajong families under centrally sponsored rehabilitation scheme. A cash grant for each family was also sanctioned by the Rehabilitation Ministry as rehabilitation grant. Talukdar (2008) reconfirmed that, during the time initial settlement, each of these families was allotted maximum five acres of land for livelihood. The settlement process was completed between 1964 and 1969. Gradually, the allotted land of the many families was lost due to the flood and erosion and therefore the families were compelled to occupy more areas illegally. Singphos, one of the local Arunachali tribal groups provided land as gift to the Chakmas by receiving cash.

The table :01 depicts that Jyotipur (Bordumsa urban)and Avoipur (

Study village	Authorised areas of	No of Families	Avg. landholding during	No of Families	Avg. legal Landholding		
	Settlement (in Ha)	(During settlement)	the settlement -1964-69	(Present)	as per recent information		
	1964-1969	1964-69	(Ha)	Survey 2012	(Ha)		
Jyotipur	440	384	1.15	366	1.2		
Avoipur	240	334	0.71	323	0.74		
Rajnagar	140	69	2.08	77	1.8		
Dumphther1	0	334	0	348	0		
Udaipur	330	537	0.61	535	0.61		
Bijoypur II	0	76	0	199	0		
Mpen I	49.3	27	1.8	137	0.35		
Dharmapur I	122	23	5.3	383	0.31		
Dharmapur II	191.76	35	5.4	232	0.82		
Dharmapur III	346.62	45	7.70	176	1.96		
Bodhisatta	61.58	13	47.13	81	0.76		
MpenII	49.3	69	0.71	99	0.49		
	2300.56	1946	1.18	2956	0.77		

(Source: Special Report on Chakma in Hajong in Changlang district, Govt of Arunachal Pradesh, 2012 and CCRCHAP Report, 2012)

Bordumsa rural) have been allotted 440 Ha and 240 Ha of land respectively. Also, in Rajnagar (Bordumsa urban), 144 Ha have been allotted. Udaipur (Bordumsa rural), one of the remote villages was allotted 330 Ha during 1964-69. It is revealed that study villages such as Dumpathar and Bijoypur II (Bordumsa rural) had not been allotted settlement areas and it was shared by the Special Survey Report that Chakma families were encroached to those villages due to various reasons. It is estimated that average land allotted to each family in the study villages was 0.87 Ha (2 acres). Thus, it is clear that average landholding declined from 1.18 Ha to 0.77 Ha within 6 decades. However, this calculation is done based on the legal settlement areas and the data on present exact availability of land in each village is not available. But, it is the fact that many of the households lost their legally provided land due to flood and erosion.

3.2. Land Use and Ownership

CCRCHAP survey (2012) report reconfirmed that issue of landlessness is increasing among the study groups. The report argued that being primarily agricultural communities, it is near impossible for the Chakmas to survive without fresh land allotment. There is acute shortage of agricultural land for the Chakma families. The report also revealed that at least 807 Chakma families never get land allotment as per the Government record. CCRCHAP (2012) report further revealed that landholding of Chakma households' ranges from 0.55 Ha to 0.94 Ha per families. Also, landholding further decreased due to natural growth of population during last six decades. Pulu (2014) pointed out that land ownership is one of the key indicators of economic status of the Chakmas.

3.3. Land for Agriculture

There are good numbers of Chakmas found to be practicing settled cultivation, based on the availability of wetland (Biswas& Paul, 2014) and this is being occurred due to unavailability of land and the study groups depends on climatic and geographic condition of the new area where they are settled. At present, they have adopted the settled type of cultivation depending on the availability of wet land; they plant betel nut, coconut, jackfruits, mangoes etc. Chakaraborty (2006) described that Chakma and Hajong are given land in the new settlement areas in Arunachal Pradesh and they developed it into fertile agricultural plots. As hardworking in nature, they started rebuilding their lives in a new area of adoption. They produced paddy, vegetables, chilly, ginger and other cash crops and sold them in local markets, bringing good economic returns.

3.4. Share Cropping System

Share copping system is common among the Chakma households. The landless and households who do not have sufficient land for agriculture engage in share cropping with their neighbouring families and local tribal groups such as Singpho, Khamtis and Tangsa (Chakraborty, 2006). Pulu (2014) reconfirmed that Chakmas in Changlang district mainly do share cropping with their own people having adequate land and they also prefer Tangsa and Singhphos people for share cropping.

3.5. Household Food Security of Chakmas

In the case of refugees or stateless people, UNHCR has food security strategy plan that focuses on the households to be food secured through provision of safe foods. The refugee or stateless households are considered to be food secure only when they have access to adequate quantity of variety of safe foods that the members required to lead healthy lives (Johnson, 2019 and UNHCR strategic plan, 2008 and Harrelson, 2011). Food security also refers to the ability of a household to secure these needs through their own production, purchases, barter

Bivariate	table 02:	Food	Security	and	Landholding
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or other means. Food security's three pillars are availability, access and utilization (Harrelson, 2011). United States Agency for International Development (USAID) defines Food Security as when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life.

3.6. Rice Production in the Settlement villages

The study revealed that most of the surveyed households depend on agriculture as their main source of income and they produce various food crops such as rice, vegetables maize etc. Even if the Chakma families are denied the services of pubic distribution systems (PDS), they survived by making use the limited land facilities and agriculture production and marketing infrastructures.

It is understood that out of 360 sample households, 77 per cent families in the study villages cultivate rice. The study revealed that 53 per cent households produce below 10 quintal of rice for the family consumption and another 12.7% households also produce 11-20 quintal for their family consumption. When we analyse the data in terms of locations, it is clear that Miao villages have more families who produce rice for family level consumption. Only 27 per cent families are not cultivating even for their own consumption. It is noticed that households in the villages such as Udaipur (Bordumsa rural), Bijoypur II(Miao rural) produce rice 21-25 quintal for their family level consumption, annually.

With regard to the commercial cultivation and marketing of rice, 32 per cent of sample households shared that they sell below 10 quintal of rice to earn income. Also 5 per cent households sell 21-30 quintal of rice to sell to nearby markets. It is noted that 2 percent households produce more than 50 quintal of rice for selling. The key finding is that Chakma families in Bordumsa rural and urban villages engage more in commercial cultivation and selling to the markets as compared to Miao families.

It is evident that rice production in Chakma settled area is considerably high as compared to the state average of Arunachal Pradesh. State-wise Productivity Analysis Report revealed that the annual yield of Rice per acre in the districts such as Papumpare, W/Kameng, L/Subansari, Upper Siang and Tirap ranges between 2.5 to 4.2 quintal. But, in the study villages, the average annual yield of rice per acre ranges between 6 quintal to 11 quintal. This data clearly depicts the scope of rice production in the plain lands occupies by the Chakma communities and success of the plough cultivation being adopted the communities.

3.7. Land Use and Food Security

Land use pattern is also identified as another key factor that contributes towards the food security of the Chakma households in the study villages. It has been already pointed out that Chakma and Hajong are given land in the new settlement areas in Arunachal Pradesh and they developed it into fertile agricultural plots. As hardworking in nature, they started rebuilding their lives in a new area and they produced paddy, vegetables, chilly, ginger and other cash crops and sold them in local markets, bringing good economic returns. There is a localised mutual dependence is developed between Chakmas and local Arunachali tribes such as Singpho and Tangsa. The local tribes engaged the Chakmas to work in their agriculture fields. They hired the refugees to clear jungles and develop farm plot for them. Chakmas also helped local tribes cultivate their land in exchange for cash or kind.

The bivariate table illustrates the symbiotic relationship between food

Divariate table 02. Food Security and Landholding										
Food Security	Adequate land (Above 2.6 acres)		Medium land (0.6-2.5 acres)		Limited land (below 0.5 acres		Landless		Total	
Landholding	No.	%	No.	%	No.	%	No	%	No.	%
Food secure	136	39	71	19	29	08	22	06	258	72
Mildly food insecure	17	4.5	28	7.5	17	4.5	09	2.5	71	19
Moderately food insecure	02	0.5	04	01	04	01	04	1.5	14	4
Severely food insecure	07	02	03	01	04	01	03	01	17	5
Total	162	45	106	29	54	15	38	11	360	100

(Source: Primary Data)

security and landholding of the households in the study villages. It is noted that 39 per cent households, who have adequate land (Above 2.5 acres), are food secure. Similarly, another 19 per cent households who have medium land (0.6-2.5 acres) are also found to be food secure. It is

surprising to note that 6 per cent households are landless and they are also found to be food secure, which implies that other factors such as shared cropping system and leased farming helped them to cultivate food crops for their own consumption. Similarly, 2 per cent households

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who have adequate land (above 2.5 acres) are found to be severely food insecure. This is because of the regular occurrence of flood and land erosion, villages are unable to cultivate food crops and accordingly they fall into severe food insecurity.

Thus, it is apparent from the scrutiny above that there is symbiotic relationship between food security and landholding. Those households who have adequate and medium land are found to be food secure and land ownership is a key contributory factor towards the family level food security. Also, the share cropping system being practiced by the Chakma households had contributed to the food security of a few landless households. Likewise, natural calamities such as flood and cyclone prevent some households who have adequate land to cultivate food crops and hence they become severely food insecure.

4.CONCLUSION

They study groups developed the limited land into more useful farm plots where they cultivate mainly food products and they produced paddy, vegetables, chilly, ginger etc. Thus, they are trying to overcome the enormous challenges such as regular flood, insecurity feeling being generated due to the uncertainty of land and assets, and other social exclusion incidents. By practicing new plough mode of cultivation, they themselves adapted to the new situations and produce food crops for their daily consumption and also sell to the local markets. The current livelihood pattern and practices of the Chakma settlers are contributing towards their social survival.

It is observed that, due to the absence of sufficient sloppy forest land and growing population, the State face food insecurity and the State depend on the valley districts for food produces. In the context, by understanding the contribution of Chakmas, who settle in the fertile plain land and producing surplus food produces, the local tribal groups started rely them. Chakmas are expert in agricultural activities especially their skill in traditional ways of farming. The livelihood of the Chakmas are mainly depended on farming on settled areas as well as *Jhuming*. By understanding the fact of shortage of land for cultivation in newly settled villages, they are forced to practice plough cultivation. The share cropping system being practiced by the Chakmas has contributed to the food security of a few landless households.

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