# *Jhumias* of Manipur in North East India: Socio-Economic characteristics and *Jhum* activities

**Punitha P[1], J.K Chauhan[2], Ram Singh[3], Daya Ram[4] and R.J. Singh[5]**

1.Sr. Scientist, ICAR-IARI, New Delhi2. Prof. (Ext. Edu.), 3. Prof. (Agril. Eco..), 5. Asstt. Prof. (Ext. Edu.), College of Post Graduate Studies, Umiam, Meghalaya, 4. Asso. Prof. (Ext. Edu.), College of Agriculture, Imphal (Central Agricultural University, Imphal)

*Corresponding author e-mail: puniashok@gmail.com*

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## ABSTRACT

*Shifting cultivation also known as Jhum practised predominantly by North East Indian farmers. The people who practise Jhum are called as Jhumias. Due to the ill effects of Jhum cultivation, since 1950s, various schemes were implemented by Government of India to eradicate Jhum. The objective of the study is to assess the socio-economic condition of the Jhumias and to document the different Jhum activity and the festivities associated with Jhum activity. Mix method research design and multistage sampling technique was deployed in this study. Total number of 240 samples was selected for the study. The results revealed that about 75.80 per cent of Jhumias household had an highest educational qualification of secondary and above secondary level of education. The average family size, dependency ratio and Jhum experience was found to be 6.67, 57 and 22.44 years respectively. The number of access to mass media was averaging 2. About 76.30 per cent of the respondents had no access to extension contact and about, 79.60 per cent of the respondents has not attended training on-farm activities for the past two years. The average Jhum size, settled agricultural land and homestead land was found to be 1.55 ha, 0.23 ha and 0.25 ha respectively. Jhum activity and the characteristics of Khasom khullen village described show that Jhumias had festivities associated with Jhumming and close knit bonding. The stakeholders who are working with jhumias should take into consideration the socio cultural aspects.*

***Keywords :*** *Livelihood; Jhum activity;*

Shifting cultivation or swidden cultivation (*Mertz et al., 2009*) or rotational agriculture or slash-and-burn cultivation (*Roy, 2012*) or bush fallow agriculture (*Priyadarshini, 2016*) is a traditional land use, low external input based cultivation system (*Khisa and Mohiuddin, 2015*) practiced in tropical rain forests and bush areas of Central Africa, Central America and South East Asia (*Priyadarshini, 2016*). In North East India (NEI), it is called as *'Jhum'* (*Ananthanarayanan, 2008*). This form of land use was practised by farmers solely or as a dual system in which both *Jhum* and settled cultivation (wet land) were taken up. The shifting cultivation was debatable as it was portrayed as highly wasteful, unproductive (*Ranjan and Upadhyay, 1999; Satapathy, 2003*) causing deforestation (*Lanly, 2003*), and declining forest cover (*Sarma et al., 2015*). Inspite of various schemes implemented since 1950s the shifting cultivation is continuing in North East India. Hence it is necessary to probe into the socio economic condition of *Jhumias* who depend on this system. Further, the documentation of the different *Jhum* activity, their characteristics and the festivities associated with *Jhumming* is necessary to understand the cultural aspects associated with *Jhum.* This paper will take into consideration the following two objectives. The first objective is to analyse the socio-economic condition of the *Jhumias* and second objective is to document the different *Jhum* activity and the festivities associated with *Jhum* cycle.

## METHODOLOGY

The research design used in the study was mix

method research design in which exploratory, descriptive and ex-post facto research design were used. The total samples of 240 were selected using multistage sampling technique deploying random sampling and proportional stratified random sampling method. Three districts *viz.*, Ukhrul, Senapati and Tamenglong were chosen in which 14 villages were selected for the study. The Focus Group Discussion (FGD) with men and women farmers of khasom khullen village was done to understand the ***Jhum*** activity and the festivities associated with it.

## RESULTS AND DISCUSSION

The Table 1 gives the glimpse of differential nature of profile of the respondents**.** It was found from the Table 1 that majority (49.58%) of the respondents belong to an old age group. However, the mean age of the household representative was 50 years and the *Jhum* experience was found to be 22 years which show that they had a sufficient experience in *Jhum*.

The highest educational qualification of the household representative revealed that majority (32.50%) were graduates which showed that they were well educated. This finding found to contradicts the study of *Tripura and Chand (2015)* in which the study revealed none of the *Jhumias* households were graduate. The family size was found to be averaging 6. A similar finding with an average family size of 7 was found reported in Ri-Bhoi district of Meghalaya in the study by *Deb et al., 2013*. The average dependency ratio was found to be 57. This indicates that there were 57 economically inactive members for each 100 economically active member. The active family labour involved in *Jhum* was found to be four. The youth of the family members who were undergoing education might not contribute for any livelihood activity. This might be the reason for the above result. This finding was in line with the findings of *Ahmed and Gordoncillo (2015)*.

The access to mass media was found to be averaging two. Among the mass media, mobile followed by radio was the mostly used mass media by the respondents. It confirms the findings of *Roy (2015)* who stated that there exists more than one million mobile users in the North Eastern Region and also confirms the findings of *Devi (2016)* who stated that according to 2011 census report of Manipur, the access and reach of radio in Manipur was 63.15 per cent. It was found that 76.30 per cent of the respondents had no access to extension contact. Further, only 20 per cent of the respondents had access to extension contact. This was because of the access to KVK near to the village at Tamenglong district and also because of intervention through NERCORMP staffs through IFAD in Ukhrul and Senapati districts. In the study on *Jhumias* in Gomati district of Tripura, researcher opined that the extension contact was found to be positively and significantly related with livelihood status of farmers (*Datta et al., 2014*). Inspite of poor network connectivity, mobile was mostly accessed by the respondents. Even the study at East Khasi hills of Meghalaya reported that mobile was the mostly possessed information and communication technology tool among the farmers (*Syiem and Saravanan, 2015*).

It was also found from the Table 1 that 79.60 per cent of respondents had not attended any training programme on agriculture and allied activities in the last year. Short Message Service (SMS) should be sent to farmers in advance related to agricultural and allied activities which will create awareness on training programme and make *Jhumias* more informed. The KVK in each district should be motivated to collect few contact numbers of village head man and other *Jhum* farmers in each village.

The contact numbers of the farmers should be utilised by KVK to disseminate training schedule through SMS so that interested farmers could attend training either in KVK of the respective districts or at ICAR or CAU at Imphal conducted time to time on various agriculture, horticulture and allied activities. The awareness to few farmers on training programmes may in turn spread awareness to other fellow farmers. It was a well proven fact that farmers to farmers contact were the widespread extension contact prevailing at farmers level (*Irfan et al., 2006*).

The average distance to market was found to be 24.86 km. Majority (42%) of the respondents reported that the distance was between 17 to 35 km. The market was used by the family members of *Jhumias* household to sell surplus vegetables. Market distance was very important as it determines the income diversification of the family. It was also found that the average distance to district head quarter was found to be 117 km. However, majority (39.58%) of the respondents felt that the distance to district headquarter was found to be less than 82 km. In the study area, though the distance to district headquarters were more but some villages were

**Table 1. Socio - economic characteristics of *Jhumias* (N= 240)**

| Variables | Category | % | Mean | S.D |
|---|---|---|---|---|
| Age | Young (<35 ) | 9.16 | 50.28 | 11.07 |
| | Middle(36-55) | 41.25 | | |
| | Old (>55) | 49.58 | | |
| Gender | Male | 71.30 | NA | |
| | Female | 28.70 | | |
| Education | Illiterate | 0.40 | NA | NA |
| | below primary | 3.30 | | |
| | Primary | 10.40 | | |
| | Middle | 10.00 | | |
| | Secondary | 25.80 | | |
| | Hr. Secondary | 17.50 | | |
| | Graduation | 32.50 | | |
| Family size | Small (2-5) | 10.42 | 6.67 | 2.30 |
| | Medium (6-9) | 56.25 | | |
| | Large (10-15) | 33.33 | | |
| Dependency ratio | Low (<100) | 82.08 | 57.29 | 53.29 |
| | Medium (101-200) | 16.25 | | |
| | High (>200) | 01.66 | | |
| Active family labour | Low (2-3) | 55.41 | 3.72 | 1.80 |
| | Medium (4-6) | 36.25 | | |
| | High (7-9) | 08.34 | | |
| *Jhum* experience | Low (<10) | 33.75 | 22.44 | 12.24 |
| | Medium (11-34) | 42.50 | | |
| | High (>35) | 23.75 | | |
| Number of access to mass media | No access | 6.00 | 2.13 | 0.92 |
| | Low (1-2) | 53.00 | | |
| | Medium (3-4) | 41.00 | | |
| | High (>4) | 0 | | |
| Extension Contact | No access | 76.30 | 0.41 | 0.88 |
| | Low (1-2) | 16.20 | | |
| | Medium (3-4) | 07.50 | | |
| | High (>4) | 0 | | |
| Training attended | 0 | 79.60 | 0.20 | 0.41 |
| | 1 | 20.00 | | |
| | 2 | 00.04 | | |
| Aspiration level | Low (1-4) | 37.50 | 5.36 | 2.19 |
| | Medium (5-7) | 44.58 | | |
| | High (8-10) | 17.91 | | |
| Livestock | Low (< 22) | 52.08 | 23.74 | 20.59 |
| | Medium (23-61) | 44.58 | | |
| | High (62-150) | 03.33 | | |
| Poultry | - | 85.83 | 24.23 | 16.82 |
| Piggery | - | 48.75 | 2.73 | 3.60 |
| Mithun | - | 10.83 | 3.73 | 2.01 |
| Duckery | - | 09.16 | 1.35 | 4.76 |
| Household assets | Low (< 48400) | 76.25 | 36045 | 43999 |
| | Medium (48401- 160900) | 22.91 | | |
| | High (>160901) | 00.83 | | |
| Market distance | Near (<16) | 40.00 | 24.86 | 20.85 |
| | Far (17-35) | 42.08 | | |
| | Very far (36-64) | 17.91 | | |
| Distance to district headquarters | Near (< 82) | 39.58 | 117.43 | 62.07 |
| | Far (83-160) | 35.83 | | |
| | Very far (161-205) | 24.58 | | |
| Distance from house to *Jhum* field | 1-4 | 02.08 | 3.32 | 1.89 |
| | 5-8 | 85.41 | | |
| | 9-15 | 12.50 | | |
| Social participation | No | 37.91 | 1.00 | 0.94 |
| | Low (1-2) | 55.00 | | |
| | Medium (3-4) | 07.08 | | |
| Non-institutional credit | 0 | 23.30 | NA | NA |
| | 1 | 76.70 | | |
| Power supply | 0 | 00.05 | NA | NA |
| | 1 | 95.00 | | |
| Hours of power supply | Low (<7) | 44.58 | 8.39 | 4.42 |
| | Medium (8-16) | 05.00 | | |
| | High (17-24) | 50.42 | | |
| Fallow Period | Low (< 5) | 17.08 | 10.51 | 4.40 |
| | Medium (6-11) | 29.58 | | |
| | High (12-16) | 53.34 | | |
| *Jhum* size | Small (<1) | 37.08 | 1.55 | 1.57 |
| | Medium (1-<2) | 34.58 | | |
| | Semi-medium (2-<4) | 17.50 | | |
| | Medium (4-<10 ha) | 10.83 | | |
| | Large (>10ha) | 0 | | |
| Settled agril. land | No settledland | 67.08 | 0.23 | 0.48 |
| | Small (<1) | 22.91 | | |
| | Medium (1- <2 ) | 07.91 | | |
| | Semi-Medium (2- <4) | 02.08 | | |
| Homestead agril. land | No homestead land | 37.92 | 0.25 | 0.37 |
| | Marginal (<1) | 56.25 | | |
| | Small (1-2) | 04.17 | | |
| | Medium (>2) | 01.66 | | |

found near to Imphal. The distance to district quarter was more than 100 km for Ejeirong village in Tamenglong district, but the distance to Imphal was around 68 km. The present study variable about distance to market was supported by the study of *Sarah (2012)* who stated that those farmers who had market access like transport accessibility, ability to sell farm products in the market showed positive and significant influence at 1 per cent level of income diversification. Further, the awareness creation through transfer of technology alone will not

be sufficient in those *Jhum* areas because farmers who were distantly located from the market might not adopt the technology because of huge transportation cost involved in marketing of the products. Hence, appropriate technology based on location specific and the participatory mode of dissemination of technology should be adopted keeping into consideration of accessibility and ease of marketing of *Jhum* and their products in these *Jhum* areas. The average distance from house to *Jhum* field was found to be 3.32 Km with majority (85.40%) reported that the distance was between 5-8 Km. From the above results, it was well understood that the *Jhumias* and their household might be reluctant to take up promising livelihood activity on a larger scale owing to longest distance.

From the Table 1, it was found that 95 per cent of the respondents had power supply and the average power supply was 8 hours. The power supplies in the study area were not regular and vary from day to day. However, they felt that compare to earlier days, the power supply had improved in these villages. Interestingly, the fallow period was found to be averaging 10.51 years in the study area as depicted in table 1 with majority (53.30 per cent) reporting that the fallow period was found to be between 12 to 16 years. The abundance of *Jhum* land as reported by the respondents in Ukhrul and Tamenglong district might be the reason for the above results of 10.51 years of fallow period. It was increasingly said that the average fallow period was getting reduced day by day due to population increase (*Arunachalam, 2002*). The *Jhum* size in this study was taken into account the last year area of the *Jhum* as *Jhumias* do not have any land record or patta as we found in valley in Manipur and also the village boundary was not demarcated and hence very difficult to found out the exact size of *Jhum* even with the help of Manipur Remote Sensing Application Centre (MARSAC) and *Jhumias* found difficult to tell the exact land size of their *Jhum* land.

The settled agricultural land in the study area was not found among majority (67.08%) of the respondents. The mean settled agricultural land was averaging 0.23 ha, for those who possess settled agricultural land. This showed that the majority of the *Jhumias* left with no other option except depending on *Jhum*. The homestead agricultural land was found to be averaging 0.25 acre. The livestock possession with the *Jhumias* was found to be averaging 23 with majority (52%) was found to have less than 22 numbers. Among the livestock possession, poultry followed by piggery, mithun and duckery were reared by the *Jhumias*. It was also found that 86 per cent of the *Jhumias* were rearing poultry birds. This was mainly reared as backyard poultry. Similarly, piggery was grown by 48.75 per cent of the *Jhumias*. The poultry and piggery were grown for consumption and the surplus was sold as a contingency measures to overcome the cash problem. Mithun was grown in *Jhum* fallows and forest ecosystem and it was found that it was grown by 10.83 per cent of the respondents of the Khasom Khullen subdivision of Ukhrul district. These Mithun were continuously monitored by the owners and were in demand as these mithun was used as a gift for high status marriages**.** It was reported from *Livestock Census (2007)* that there were around 10,024 mithun in Manipur which occupies the third largest mithun populated state in NER (*Mukherjee et al. 2014*). This finding confirms the findings of *Kumar et al. (2016)* which stated that the livestock contributed for sustainable livelihood system for the tribal communities.

*Jhum activity and their characteristics:* The *Jhum* activity start by deciding the *Jhum* block, selection of *Jhum* plot by the households followed by felling of trees, drying, burning of the *Jhum* plot, dibbling of rice and other crops, weeding, harvesting of rice and other crops followed by leaving the land fallow. The fallow period varies from place to place. The FGD with khasom khullen farmers revealed different *Jhum* activity, characteristics and the festivities associated with it which is present in Table 2. The *Jhum* land belong to whole village was divided into different *Jhum* blocks which will be cultivated in different year based on the customary rules and regulations practised in the village. The festivals were also found prominant place among shifting cultivator communities of adi tribes where in thirteen festivals are associated with crop calendar (*Teegalapalli and Dutta, 2016*).

## CONCLUSION

In Manipur, the study observed large family size, average dependency ratio, and abundant *Jhum* land. About 75.80 per cent of *Jhumias* household had highest educational qualification of secondary and above secondary level of education. The study also observes that farmers have homestead land. Hence, those *Jhum*

**Table 2. *Jhum* activity and their characteristics**

| Jhum activity | Month | Characteristics |
|---|---|---|
| Selection of *Jhum* block | January | The village land is in the hand of headman since olden days. The *Jhum* land is distributed and demarcated for a particular village. The criteria like larger fallow period, soil characteristics are taken into consideration for selecting *Jhum* block. |
| *Jhum* plot selection for the village members | January | *Jhum* plot is hereditary in this village. Every village is composed of 5 to 6 clans. Every clans distribute the land according to the family size. As a customary rule, land is owned by the eldest son. He is responsible for dividing the land and give to the youngest members. Hence, respective family member will cultivate in the same *Jhum* plot after a respective fallow period. This takes place in January month. |
| Felling of trees | Last week of January to February | Both men and women participate in the activity of felling of trees. For this activity, the tools Dao are used for cutting the trees. Just before felling of trees in order to have good harvest in their *Jhum* land, the villagers celebrate the festival called as "*Ramtho Phanit*" local Thangkul dialect. "Ram" means land, "tho" means starting and "Phanit" means festival. The first felling of trees will be initiated by chief / head man of the village. Lo kaphung' (Lo=Lui=field) is practised in south part of Ukhrul. During this festival, the whole community pray and the villagers will have community feast. The household either contribute money for the festival or they contribute in kind of grain and they make auction. The money collected through auction are kept for festival. During this festival, the animals like pig, or buffalo or mithun or cow is cut for community feast. Further, singing, dancing takes place in this festive occasion. During MGNREGA funding, some portion is used for this festival celebration. |
| Drying of trees | Feb to March | The drying of trees is a pre requisite for effective burning |
| Burning of | End of march | After burning, the land is cleared. The clearing is done by both men and women. |
| Dibbling of Rice and other crops | Last week of April to First week of June | The seed sowing festival called as "Lungaini" is celebrated from their ancestral time based on the suitability of valley and hill region on 15th February. The well burnt part is used for growing vegetables. The *Jhumias* observe that the growth and yield of crop is higher in the burnt area than the unburnt area. Further, they opine that the lodging of rice takes place due to overgrowth when it is grown in the burnt plot. Hence, they prefer to grow different vegetables like ginger, colocasia, yam, pumpkin, cucumber, beans, brinjal, chilli, millet, jobs tear in the well burnt area and marigold in the foot path. The rice is the major and primary crop for the farmers. From 1 tin of paddy which is around 8 to 10 kg, the Jhumias harvest around minimum of 30 to 40 tins of paddy and maximum of 80 to 100 tins of paddy. Based on the family requirement, the farmers used to dibble around one to two tins of paddy in *Jhum* plot. The rice they planted is solely for consumption purpose. If there is rice shortage, the family members used to take in loan and give to the family members in the coming years with interest in kind. The vegetables are consumed and the surplus is marketed by the *Jhumias*. |
| Weeding of crops in the rice plot | Ist weeding in June and IInd weeding in last week of August | During this time, the *Jhumias* celebrate a festival called as "*Luimao Phanit*" (Thangkul). Luimao mean clearing. In every houshold, during this period rice is grinded for preparing a naga cake. Since the fore fathers period, this festival is celebrated. Earlier during evening time, the rice beer is prepared and drank during this day. After the inculcation of the principle of Christianity, they were inculcated a discipline that drinking is a sin hence the villagers stopped preparing and drinking rice beer. Next day, they prepared naga cake which is taken to their respective rice field. |
| Harvesting of rice in the *Jhum* plot | October | The harvesting festival is called as *Maha Phanit* / *Thareo Phanit* which takes place in the first week of october. The early sown varieties are harvested in the |

| | | |
|---|---|---|
| | | first week of october and late varieties are harvested in the last week of october. |
| Storing of rice | October last week or November | After harvest, granery rituals takes place. "*Kai khanung'* (Chum phu=Granary rituals). In the past this festival is one of the major festival of the Tangkhuls. It is celebrated after the completion of harvest. The date of the festival is in relation with the completion of harvest. In other sense, it is a festival of women, a festival for opening of the granary. On this very occasion, ear piercing ceremony known as "*KhanaKasa*' is done whose family's children's ear are to be pierced that year which will be done by an old man. |

land crops suitable for homestead land have to be promoted in homestead land. The homestead land with sufficient water will help to grow vegetables for household requirement. The poultry dominates the animal possession. Further, a location specific hot spot which is suitable for growing various livestocks has to be identified and promoted e.g: Mithun hot spots in khasom khullen division of Manipur. The various *Jhum* activity and the festivities associated with it portrays the rich dominant culture and the social togetherness woven in the lifestyle of shifting cultivators. Apart from socio- economic factors, the cultural factors also should be taken into account while advocating policy related to shifting cultivator communities.

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