

SHIFTING CULTIVATION AND THE ISSUE OF FOOD SECURITY: A CASE STUDY OF THADOU-KUKIS OF MANIPUR

Seiminlun Chongloi *

Abstract

Shifting Cultivation, one of the oldest practices in agriculture is intrinsically related with social institutions of human societies particularly the tribal societies. Understanding tribal culture without shifting cultivation is incomplete. Jhum never fails to produce. In the patterning of crop distribution, sometime some crop may fail, but some surely bring certain amount of yield. Due to climate change, market demand, materialist outlook yearning for cash, is changing the attitudes towards jhum. Besides this, Scientific and technological achievements in turns also creates new needs, new adjustment. Yet the practice of shifting cultivation still continues giving security to the farmer in the upland. But some changes have taken place in the cropping patterns. The traditional multi-cropping pattern has been replaced by mono-cropping of various cash crops resulting in manifestation of indigenous food system. The present paper aims to explore this dynamic of shifting cultivation and its impact such as the increase in cash crop cultivation, the decrease in indigenous food resulting in increasing dependency on the market economy challenging and invading the food security issue.

Keywords: Shifting Cultivation, Traditional knowledge, Food security, Mono- cropping.

- Seiminlun Chongloi is presently pursuing Ph.D in Centre for Manipur Studies (CMS), Manipur University Canchipur Imphal, Manipur (India).

Introduction

Man was primarily a forest dweller who used to depend on forest for food and shelter. In due course when man switched over food gathering and hunting to food producing stage, he made small clearings in the forest for cultivation of cereals for consumption.¹ It was the Neolithic culture (covering 13,000 to 3,000 B.C) that marked the transition to new stage of primitive society.² It is believed that shifting cultivation, a primitive method of cultivation along with domestication of animals happened to originate in this period. In the history of interaction between primitive society and the natural environment, the emergence of crop farming is a major milestone in the transition from simple adaptation to nature for extraction of product fit for use to remaking the natural environment.³ This shifting cultivation is considered as one of the oldest practices in agriculture and intrinsically related with social institutions of human societies. Till today it is widely practiced in Southeast Asia, sub-Saharan Africa, and Latin America and in the tropics and subtropics; and by communities of different countries including India. Shifting cultivation also known as slash-and burn cultivation has a rich traditional ecological knowledge base and remains an important component of forested landscape in many parts of north-east India states. Indigenous shifting cultivators have a vast store of local knowledge about their particular landscape and how best to use it for survival, and have much to teach the world about efficient use of their landscape for combined agriculture, forestry and biodiversity conservation. Shifting Cultivation, being a labour intensive and subsidy based farming system, provides assured source of food security to the subsistence level farmers of the hills region. However, since 1970s the issue of Food security has been the concern of many people of particular regions from both developing and developed nation because food quality first of all relates to a healthy life. Access to healthy food and sustainability is the core of food security. By food security it also means that all people at all times have physical and economic access to adequate amount of nutritious, safe, and culturally appropriate foods, which are produced in an environmentally sustainable and socially just manner, and the people are able to make informed decisions about their food choices.⁴ Besides, environmental health, economic vitality, human health and social equity are the main focuses of food security. Food security would also means livelihood security which encompasses social and psychic security as well. According to World Bank food security means “Access by all people at all times to enough food for an active, healthy life”.⁵ The Declaration of the World Summit on Food Security held in Rome in November 2009 has proposed a multilayered definition:

Food Security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are

¹ . Amitabha Sarkar and Samira Dasgupta. 2000. *‘Ethno-Ecology of Indian Tribes’*. Rawat Publication: New Delhi.

² Quated from P.K Dhars article; States of Shifting Cultivation in North East Region and Strategy to change such Status (Presented in fourth conference of the North Eastern Economic Association at Shillong, P, 18.

³ . P. Gerasimov (et el...), *Man Society and the Environment*, Progress Publishers Moscow. P, 35.

⁴ www.google.co.in/m2q/Foodsecuritynews.com cited on 18-02-2015.

⁵ Looking For Food: The difficult journey of the Hmong in Vietnam (Anthropological Perspectives on Food Security) by Vuong Xuan Tinh, / www.cited 16/02/16)

availability, access, utilization and stability. The nutritional dimension is integral to the concept of food security (WSFS 2009).

The UN, its various agencies along with other multilateral bodies have adopted comprehensive programs on food security and rural development.⁶ Since beginning, the concept of food security remains controversial. According to Maxwell, there are some 200 definition of food security (Maxwell, 1996: p,155). This is because each person and each organization looks a food security from their own approach⁷. Besides the world body, a numbers of scholarly studies have been conducted by scholars from various backgrounds such as anthropologists, sociologists, economists and Ethnographers etc. The issue of food security is one area where various scholars especially the anthropologists have paid attention. A number of factors which cause food insecurity have been highlighted by the scholars/ anthropologists. Those scholars relates food security to many aspects of the society such as poor health condition, population growth, lack of markets facilities and lack of non-agriculture income generation, natural calamities, failure of crops, law and order problems in a regions, traditional based system of a society etc.

On the Scale of sustainability, jhum never failed to give some produce or the other. It has been a very essential element in resolving food insecurity issue. Increasing growth of population reduces the quality of land available for jhum cultivation. The emergence of private land ownership system paved the way for settled cultivation. In addition, the materialist outlook of the present society, low productivity of traditional crop, better connectivity and better marketing facilities has changed the structures of many tribal economic practices particularly the tribal of Northeastern states of India. In spite of that, their activities are still base on shifting cultivation but a lot of changes in cropping pattern are witnessed. Therefore, mono-cropping of various cash crops over a large tract of forest has replaced the traditional multi-cropping pattern leading to increase cash flow but decreased food security. Increased cash crops but decreased indigenous food and the ever increasing dependency on the market of cash crops, has started invading the food sovereignty issues. However, jhum cultivation for the tribal is not just an economic activity. It is their way of life since their social, political, religious and other aspects of their life is associated with this practice. Therefore, total abandoning of shifting cultivation is out of question. In view of this, the present paper aims to analyse shifting cultivation practice and the issue of food security with reference to one Thadou - Kuki village of Manipur.

Shifting Cultivation among the Thadou-Kukis of Manipur

Food and agricultural Organization defined Shifting Cultivation as “the custom of cultivating / clearings scattered in the reservoir of natural vegetation (forest or grass or wood lands) and of abandoning them as soon as the soil is exhausted and this includes in certain areas the custom of shifting homesteads in order to follow the cultivator’ search for new fertile lands” (F.A.O. paper,1957).⁸ Crocklin (1961), describe “shifting cultivation as use of human labour,

⁶ IBON Primer on Food Sovereignty and the Food Crisis, IBON International, Published by IBON Center Philippines, 2012, P, 38-39.

⁷ Looking For Food: The difficult journey of the Hmong in Vietnam (Anthropological Perspectives on Food Security) by Vuong Xuan Tinh, / www.cited 16/02/16 p,2.

⁸cited R.K.Kar.1994, ‘Shifting Cultivation in North-East India: An Appraisal’, in Sarthak Sengupta ed., book ‘*Tribal Situation in North East India*’, New Delhi: Inter-India Publications, P, 118.

use of stick or hoe, short periods of soil occupancy alternating with long fallow periods”⁹ The practice of shifting cultivation also known jhum cultivation in North East India is considered, the oldest and the most common form of economic activities of tribal communities including the Thadou-Kukis of North East India. The Thadou-Kukis, scattered in various part of India’s North Eastern state. Majority of them settled in almost all the district of Manipur. Directly or indirectly they depend in this form of cultivation for subsistence since time immemorial. Under the supervision of the village chief and his cabinet each households of a village is allotted a jhum site from the village forest. The multiple stage involved in the practice of shifting cultivation start right after the site selection of jhum land. Slashing or cutting the forest begins after the site is allotted, which usually start in latter part or earlier part of November and December. It is then allowed to dry and usually the debris is burnt in the month of March or April followed by clearing of the field for cultivation. Seed sowing begins in the month of April. Weeding is done once or twice or sometime till the crops are ripe. Harvesting begins in the later part of September to earlier part of December. Each stage is associated **with certain rituals and celebration: rituals for bumper harvest and celebration because of bountiful harvest**. With their instruments of their indigenous cultural practices the Thadou-Kukis of Manipur raised multiple crops in the same plot by using their labour as its chief input. They obtain livelihood, food security and social security through the practice of shifting cultivation. Their socio-cultural life, their rituals, annual events, celebration and their day to day life is link with this system/ practice. It is also closely tied to their cultural identity. It is a way of life for them since it is the only means where they sustained their livelihood. Man and women, young and old including the chief and the priest have their own role in this process according to their own capabilities. The practice of jhum cultivation is much engraved in the cultural life. Also due to their traditional habit and belief they have been maintaining a special fascination toward this form of cultivation. Therefore, the practice of jhum cultivation encourages community bonding and strengthens village level institutions thereby enhances social capital.¹⁰

Scholars are of the opinion that shifting cultivation is the most contentious and misunderstood form of land use. Because shifting cultivation is blame to cause loss of soil fertility, deforestation, climate change, ecological imbalances /destruction, etc. The Forest Survey of India (FSI) also persistently remarked that loss in the forest cover is mainly because of shifting cultivation.¹¹ In connection to this a huge argument are put forth. Some scholars are in favour of abolishing and some others including sociologists and anthropologist are in favour of practicing this method because they closely link these practice with the tribal culture. Interestingly, Asia Indigenous Peoples’ Pact publication (2014) , state that Shifting cultivation was actually found to be “an ideal solution for agriculture in humid tropics as long as the human population density is not too high and fallow periods are long enough to restore soil fertility.

⁹ cited in George T.Haokip. Kuki Tradition and Shifting Cultivation, <http://Kukiforum.com/2009/05/Kuki-tradition-and-shifting-cultivation>, browsed on 19/02/160).

¹⁰. Quated from Chieto Mero and A.K. Nongkynrih Shifting Cultivation: A Sociological perspective, The journal of The eastern Anthropologists. Vol.65.2012, p.323.

¹¹ The Sangai Express, Monday 25 February, Vol:XVI/161.

This agricultural system is ecologically sound and meets a variety of human needs with great efficiency, particularly with regard to labour and other agricultural inputs”.¹²

In spite of implementing number of program, policy and schemes by different policy makers and agency to check the practice of shifting cultivation the number of shifting cultivators is increasing. According to Rajiv and Updhay (2015), 85% of cultivation in North East India is by shifting cultivation.¹³ In Manipur alone around 3 lakh people of 70,000 households are relying on Jhum cultivation for livelihood. As such it could be calculated that a round 15% of the total population of the state are practicing jhum cultivation.¹⁴ But jhum cultivation a system of rotating fields rather than crops “depends entirely on distribution of rain and moistures retention power of the soil. The wide stretch of the sowing season and variety of crops grown are an insurance against the uncertainties of rain both in terms of the total quantity and its seasonality. In the year with ideal distribution of rain, the shifting cultivator may have a really bumper crop”¹⁵ Due to unpredictable monsoon, low productivity, in applicability or absence of modern technique, shortage of jhum land, the practice of shifting cultivation can no longer provide food security. However, the practice of shifting cultivation is increasing due to absent of sufficient employment alternative arrangement. But changes takes place in the cropping pattern, multiple cropping has been replaced by mono cropping of cash crops in certain section of jhum cultivators leading to commercialization of agricultural product to secure the issue of food security. Therefore, total abandoning of shifting cultivation is out of question for the tribal including the Thadou-Kukis of Manipur.

The issue of food security in the study Area

Almost all the tribes of Manipur today, are going through a period of transition whereby they feel that they need to do away with jhum and incorporate cash crops to satisfy their modern needs. As being observed this transition is proving to be painful as the need to be part of the market economy as well as to keep their traditions alive is perplexing them. There is a noticeable shift in the sociological matrix as well as the cultural change in the little village economies today. As mention earlier the present paper aims to explore the dynamics of shifting cultivation and the issues of food security of the Thadou- Kukis by taking Govajang village of Sadar hills Senapati district as a case study. Govajang village is located on the state highway i.e. Imphal to Tamei road (IT Road) in the interior part of Manipur under Tadubi constituency, about 100 km from the state capital. The village has around 48 household with a total population of 283 comprising 144 male and 139 female. Data are gathered both from primary and secondary source. The primary data are collected by undertaking fieldwork through informal interaction

¹² People in Asia, Published by Asia Indigenous Peoples' Pact (AIPP) and the International World Group for Indigenous Affairs (IWGIA), Chiangmai Thailand 2014 ([.AIPP: www.aippnet.org](http://www.aippnet.org). assessed on 10.02.16).Vuong Xuan Tinh, 'Looking for Food: The difficult journey of the Hmong in Vietnam Anthropological Perspectives on Food Security', (assessed on 16/02/16)

¹³ . Rajiv Ranjan and V.P. Upadhay, Ecological Problem due to Shifting Cultivation. pdf file cited on 10.02. 2015.

¹⁴ The Sangai Express, Vol: XVII/115 Saturday 09.2016, p, 1&8.

¹⁵ . R.K.Kar.1994. Shifting Cultivation in North-East India: An Appraisal. in Sarthak Sengupta ed., book *Tribal Situation in North East India*, New Delhi: Inter-India Publications, P,126.

along with observation method. On the other hand newspapers, journals and book etc. are use to gathered the secondary data. For the purpose of the present study the total population and the members of household's distribution of the village are given below:

Table .1
Households Population Distribution

S/no	Average members of a households	No. of household	Percentage (%)
1	0-3	09	18.75
2	3-6	21	43.75
3	6-9	13	27.1
4	9 and above	05	10.41
	Total number of households	48	100

Source: Village Annual Assembly Record 2016.

The above table shows the population distribution of the village into four categories based on the average members of the household. Members ranging from 0-3 comprised 18.75 % of the village households; such family includes single family like widows, nuclear family who have recently established their own house. Family with two or three unmarried children's whose members is three to six in numbers comprise 43%75 of the total village household. A family comprising six to nine members whose members include a couple their unmarried children's, their brothers or sister who is of a marriageable area along with their mother and father comprise 27.1%. The rest of 10.41% household is joint in nature comprising more than one couple (husband and wife), along with married, unmarried children's along with their grand children's.

It is pertinent to note that almost all the villagers were mainly cultivators by profession with little or no independent source of income. Directly or indirectly they depend on forest for their home, food, employment, and income. They begin their day and end their day in the forest for survival. They primarily cultivate their indigenous food items such as paddy, maize, cucumber, chilies, pumpkin etc, whichever is required by the community for domestic consumption in the same plot or plots of jhum land. In addition to shifting cultivation terraced wet rice cultivation is another system of cultivation practice by few households along with shifting cultivation in the village for subsisting. Both their system of cultivation is based on their indigenous method and knowledge with the values of interdependence, respect and ecological sensibility. Thus, jhum enables a food continuum. In addition to this, they also domesticate cattle, dog, pig, hen etc., but not for commercial purpose. Hunting, fishing and gathering the forest produce are the other activities practiced by the villagers to supplement their food. With this system they have been leading a simple but harmonious and peaceful life.

The study reveals that due to unpredictable monsoon with late rain, heavy rain sometime little or no rain, the agriculture practices of the village has been affected. This variability of monsoon has brought change in agricultural economy since indigenous agricultural practices of the villagers entirely depend on timely arrival of monsoon for good harvest. Sustenance of these forms of agriculture is proving to be bleak once a period of time it cannot sustain changing eating habits. Shifting cultivation as an economic system of production constitute their basic

structure on which they build all other social institution, realizing its inadequacy, they have started practicing different cropping pattern leading to food shift. The cropping pattern of the villager for ensuring food is shown in the table given below:

Table.2
Cropping Pattern of the village

Sl. No	Cropping pattern		No. of Household	Percentage (%)
	Principal	Subsidiary		
1	Paddy	Brinjal, chilly, Banana, Maize, potato, jam	09	18.75
2	Ginger	Brinjal, Chilly, Banana	18	37.5
3	Banana	Ginger, Paddy, Brinjal	21	43.75
4	Total		48	100

Source: field work 2016

The above table shows the changes in the cropping pattern with the introduction of two system of cropping pattern i.e. principal and subsidiary , depending on the prefer crop of the villagers. Out of Forty-Eight (48), Nine households (18.75%), still prefer paddy cultivation (both shifting and terraced wet rice cultivation), Eighteen 18 (37.5%) prefer ginger and Twenty-One (43.75%) prefer Banana as their principal crops. Almost all the households cultivated brinjal, chilly, maize, potato, jam etc, as subsidiary crops. Change in the cropping pattern also shows the introduction of horticulture plantation such as banana and also mono-cropping of certain cash crops like ginger, brinjal and so on. One remarkable changes is that paddy the prefer crop since the past has now prefer as a subsidiary crop by many household in a village.

Thus, multiple cropping has now being replaced by mono-cropping of certain cash crops such as ginger, brinjal, banana etc which they had never previously considered for their staple food. It is pertinent to note that paddy the only staple food of earlier day is no longer preferred by majority of the villagers due to low productivity. Besides this, market demands also encourage people to go for cash crop cultivation. Proper connectivity of road, advancement of network facilities in their areas also provides easier facilities for commercialization of their agriculture products although there is no proper market to commercialize their agriculture products. Domestication of animals such as cow, pigs, hen etc., now has an economic value.

Unpredictable monsoon, materialist outlook, better connectivity than the earlier day etc, resulted to diversification of economic occupation. Unlike before, many alien part time job or economic activities such as quarrying works, carpentry, daily wages etc happen to exist. In order to earn a living a small section of the villager left to nearby town and cities to take up different job. Many young generations also left the village to metros or cities temporarily for earning. Thus, there is noticeable shift in their food habits and the process of procuring food in the little village today.

Table.3

Households Occupational Distribution in a Village

Sl. No.	Occupation		No. of Household	Percentage
	Principal	Subsidiary		
1	Daily Labourer	Nil	04	8.4
2	Agriculture	Day Labourer	27	56.25
3	Agriculture	Nil	03	6.25
4	Agriculture	Business	03	6.25
5	Service	Nil	03	6.25
6	Others		08	16.67
7		Total	48	100

Source: field work (2016)

The above table of the household occupational distribution of a village shows , four household (8.4%), earn a living through daily wages such as quarrying work, construction of houses, carpentry etc. Agricultural work and daily wages support twenty-seven (56.25%) household, also some of such family members left their home and earn income by engaging in various private sector, three (6.25%) household earn a living only from agriculture without any subsidiary occupation. Another three (6.25%) household makes a living with agriculture along with part time business. Such family usually goes to nearby town and cities to commercialize their agricultural product. Sometime they also buy agricultural products of the villagers for business purpose. In a village, service sectors comprise only three (6.25%) household, such families includes those in military service, and some under the state government department. The rest of the household i.e. eight (16.67%) makes a living by undertaking different job. Some of such family owned a vehicle like trucks, auto-rickshaw. They left the village temporarily to nearby town and cities and make sustained their life through their vehicle. In addition to this, some villagers supplement their family income through seasonal occupation such as hunting, fishing, gathering forest produce etc. This diversification of economic occupation generates some changes in the annual income of the villagers which will be shown in the table below:

Table.4

Annual Income of the household

Sl. No	Range of Annual Income	No. of Household	Percentage (%)
1	Less than 40000	10	23.83
2	40000-50000	18	37.5
3	50000-60000	04	8.34
4	60000-70000	05	10.42
5	70000-80000	04	8.34
6	80000-90000	04	8.34
7	90000 and above	03	6.25
	Total	48	100

Source: Field work (2016).

The above table shows the differences in the annual income of the villagers. Out of 48 households only three household comprising 6.25% of the villagers earn Rs 90000 thousand and above per annum. Such family includes that family who is in military service as well who work

in the department under government. The rest of the family earns their income from different sources such as agriculture, livestock, daily wages, gathering forest produce and so on. The above table also shows that majority of the villagers or households earn income less than Rs 50000 thousand which is below poverty line. According to some respondent the annual cash income is growing than the earlier day due to adopting cash crops cultivation along with the introduction of different alien occupation. Increasing cash income and decreasing agricultural product has made the villagers to depend on market goods and items. The market goods and items have changed the consumer preferences on food items. Here, the issue of quality and quantity of food has been raised by the villagers. Quality food which is usually preferred food could not easily be procured by majority of the villagers. Their collective spirit has given way to individualism. They are more materialist in their outlook. As compared with the earlier days their degree of mutual understanding has decreased or weakened due to the involvement of pecuniary system. A system of stratification and inequality happen to exist among the villagers in a minimal degree. These changes of food habit to some extent also changes the social structure or system of the village. The concept of taboos on food items has also been decreased because the market food items which replaced the indigenous food items have less moral code concerning its consumption. In connection to health issues, majority of the respondents particularly the elders reluctantly blame that change of food habit deteriorating the health condition of the villagers. They understand that market food items contains chemical which causes illness to many people of the village. The sacks of rice they buy in the markets contain less nutrition. They also mention that many alien market goods particularly tobacco products and many eatable items which replaced the traditional vegetable products brought various kinds of diseases to all the people in the village. This in return generates tension, unhappiness and quarrels among the members. Thinking for the treatment such diseases also created a huge burden in the family. But almost all the respondents undeniably agreed that shifting of traditional crops to cash crops and introduction of many alien economic activities boost the economy of the villagers. The villagers prosper economically. They now could procure daily gadget use like mobile handset, television TV. Set, portable T.V, LPG Cylinder, modern furniture's, utensils etc. They are enabling to send their ward to nearby town and cities for acquiring modern education. This resulted to the attitude of generating more income for meeting the daily requirements and expenditures. In many cases the demands of the family exceed their income.

More importantly mono-cropping of cash crops with the dominance of alien occupation affected the socio-cultural life of the agriculture village. The villagers could not make any choice of growing the preferred seeds which challenges and invades food security and food sovereignty issue. Since the granary which was full is empty today. Shifting cultivation never failed to produce but in spite of that all most all the villagers now depends on market for their daily consumption. It is also curious to note that some of the villagers including some of the elders satisfied their hunger by taking the so called modern fast food items.

Therefore, food security is still the issue of the villagers particularly among the elders. According to village elders the village community in the earlier day supports one another through borrowing, sharing the food stuff in case of scarcity. Food sufficiency, instead of cash income is the essential criteria for defining the rich or the poor household in a village. Examining the system of food supply, the expenditure on food and quality of food they consume food security can really be an issue in a village.

Since shifting cultivation never fails to produce, the cultivators consume the varieties of crops whichever they grow in the field. It has been helpful for the villagers in resolving the food

security issues as majority the villagers are more capable in performing this form of economic occupation. As R.S. Mann put “this system is also well knit that even the deprived family and the physically handicapped are also taken care of”¹⁶ In addition to this, indigenous food also preserves the indigenous culture, their identity as well as the indigenous knowledge system of meeting the adequate amounts of healthy indigenous food. Not only that it also restores a healthy and a community living and links the past and present society through its traditional knowledge systems. The majority family in the village could hardly manage nutritious food items so, the level of food security is worst in such family. In addition to this their traditional or indigenous system of producing food crops and socializing is greatly affected.

Conclusion

Food security is one of the main issue of the village under study. Regardless of recommendation of various commercial crops, introduction of scientific method of cultivation, implementation of various policies and schemes by various agencies including government agencies, majority of the farmers decline to change their traditional way of farming because such policies and programme always failed to provide food security to them. Besides this, introduction of such programme and policies is not applicable to their areas due geographical location as well as shortage of human resource such as skills, lack of education and so on. In addition to this, eradication of shifting cultivation not only destroys the local food security it would even directly affect the socio-cultural life and their centuries old system of farming. Therefore, by considering the local culture, local ecology, local foods and its system of production both the centre and state government need to intervene through integrated policy on jhum in order ensure balance development along with ensuring food security at the household level as R.S. Mann puts, “interference, rather than improvement would cause imbalance in vital areas of life and culture”.

¹⁶ .Mann, R.S. 1996. “Aspects of Indian Social Anthropology’, New Delhi: Concept Publishing Company, p, 69.

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