

Research Paper



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VEGETABLE FARMING AND SUSTAINABLE LIVELIHOOD: A CASE STUDY OF LONGKHUM VILLAGE, MOKOKCHUNG, NAGALAND

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ABSTRACT

The Ao Nagas are one of the tribal communities from North-Eastern part of India. Agriculture is the main sources of livelihood for the Ao Nagas and their agricultural practices have economic as well as social and cultural value in their everyday lives. As such, they are largely dependent on agriculture and they rely on the agricultural productivity for their subsistence and livelihood. They have been efficiently practicing and engaging themselves in the traditional agricultural methods for survival needs. However, since recent years, there has been a noticeable change in the farming system where people are slowly but steadily withdrawing from the traditional practice of paddy cultivation and engaging themselves in integrated farming system where variety of cash crops are cultivated according to the seasons. Indeed never before had witness such practice, some of the Ao villages especially the Longkhum village has switch to all year round cultivation of different varieties of cash crops that enables to cater to the demands of urban centers such as Mokokchung, wokha, Zunheboto, and even Kohima town. It is therefore, in this context, the present paper attempts to examine the adoption of new methods of farming by the Ao Naga community of Nagaland. Moreover, it would further endeavour to understand whether such adoption to new method of farming has any economic impacts by way of income generation and improving their standards of living, and finally whether such practices are sustainable to their livelihood. At the same time, it attempts to look into the challenges and obstacles faced by the farmers in the process since it is altogether a new practice.

KEYWORDS: Agriculture, farming, sustainable livelihood, Ao Nagas.

1. INTRODUCTION

Agriculture is defined as the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products (Websters Dictionary). Agriculture is one of the most important source of sustenance and livelihood for millions of people all over the world. Agriculture is an indispensable sector in India. Agriculture plays a vital role in the Indian

economy. Over 70 per cent of the rural households depend on agriculture. Agriculture contributes about 17% to the total GDP and provides employment to over 60% of the population (Kekani Maruti Arjun, 2013). Agriculture is also the mainstay for the state of Nagaland. Nagaland is an agrarian state with over 71 percent of its population dependent on agriculture and its allied sector (Task Force Report, 2015). According to

State records, the total area under agriculture in a given year accounts to 3,89,120 Ha (Nagaland State Portal, 2017).

Livelihood, on the other hand can be understood as a means of securing the necessities of life. It is a means of supporting one's existence, especially financially or vocationally. Chambers and Conway defines sustainable livelihood as, "a livelihood is sustainable when it can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource base"(Chambers & Conway, 1992). Sustainable livelihood can therefore be understood as the ability to cope or sustain for over a period of time. It may be mentioned each community has its own way of securing their livelihood. Thus, different ways and means, practices, methods and approaches are adopted in order to enables them to achieve a sustainable livelihood.

The present paper is an attempt to discuss such adoption of new methods of farming by the Ao Nagas tribe of Nagaland. It may be stated here, like many other tribals in Nagaland for so long have been practicing the traditional methods of shifting cultivation. However in recent times shifting cultivation has been termed as slow and low productivity especially in the context of rapid economic growing situation when nations focuses its national economics through the idea of liberalization and global markets. (tenjensosang: 2015). Of late a paradigm shift in the traditional style of cultivation is taking place. This new method, i.e cultivation of cash crops instead of rice cultivation, is showing positive result thereby helped the farmers in improving their standard of living as well as helped them in managing a sustainable livelihood. The paper also attempts to look into the challenges and obstacles faced by the Ao Nagas in the cultivation and production process for their subsistence and in their effort to secure a sustainable livelihood.

Our required primary data for this paper was collected from Longkhum village and the secondary data was collected from various books, journals, articles, official records and annual reports etc, the data were systematically analyzed in order to have an objective picture of the current practice on cash crop farming. Interview method was employed to collect data from a sample of 32 farmers, out of which 24 were vegetable growers, 5 jhum cultivators and 4 permanent farm owners using purposive sampling method.

AREA OF STUDY

Longkhum is an Ao-Naga village which falls under Ongpangkong range, Mokokchung district, Nagaland. Situated on a hilltop with an altitude of 1846 m above sea level, the village has a population of 3811 with a total of 546 household (as per Population Census 2011)). The village is divided into three residential units called 'mepu', namely *Sangpang*, *Imrong* and *Chungli*. Agriculture is the primary occupation of the village. Forest related economic activities such as logging also form an integral part of their economy. Villagers are also engaged in other occupational sector like government service, self support business, etc. However, it may be stated that those households whose major income of the family earns through other occupational sectors as mentioned above other than agriculture have admitted to the fact that they too engage in vegetable farming though it remain a subordinate means of livelihood. The chief reason for selecting Longkhum village as a sample village was because of the very fact that it has exhibited to a large extend the success story of vegetable/cash crop farming in Mokokchung district.

DISCUSSION AND MAJOR FINDINGS

From the available data and through the interaction with the vegetable farmers of Longkhum village our discussion and major findings are placed under various headings.

From Rice cultivation to vegetable farming:-

Shifting cultivation, a slash and burn cultivation in which traditionally rice was the main crop was practiced by the people of Longkhum village since time immemorial. Rice was and is still a staple food for all Ao Naga tribe. The village in question remains a self sufficient in rice production. However, often said than not, rice cultivation is less sustainable remains true, because in hilly areas especially state like Nagaland traditional methods of shifting cultivation has proof to be expensive because of labour extensive on the one hand and chiefly because it leads to extensive soil erosion. Keeping in mind that rice cultivation was unsustainable, lately few farmers have initiated to switch over to cash crop farming such as potato, cabbage, tomato, chilly etc, which proves themselves to be economically more viable and sustainable. Therefore the Longkhum village was declaration as a 'Potato seeded village' in 2002 and a 'vegetable village' in 2004 by the Department of Horticulture, Government of Nagaland. The success story of vegetable village is witness by

the denizens of Mokokchung and Wokha town respectively. Today, more than half of the village populaces are engaged in vegetable farming.

Vegetable farming in Longkhum village initially began with the introduction of hybrid tomato seeds to the villagers by one S.I. Aren, a resident of Longkhum village in the year 1999. He was the only farmer cultivating tomatoes and potatoes instead of rice crops in the fields. Later in 2004, four families joined him in the venture of tomato cultivation which resulted good harvest by making 9 metric tons of tomatoes. Indeed, farmers of Longkhum village perceived the idea of tomato cultivation and its potentialities and suitability with the type of soil thereby started cultivating on a large scale. It may be mentioned here the pioneer Mr. S.I Aren was awarded the Best Vegetable Farmer award by the Agriculture Technology Management Agency, Mokokchung District in 2009.

The Nagaland state government Department of Horticulture and Agriculture assisted and sensitized the farmers on vegetable farming in their initial years of vegetable farming. By 2009, there were more than 120 households cultivating tomatoes and harvesting more than 200 metric tons of tomatoes. More than half of the villagers now practice vegetable farming. Harvest depending on the size of the farm, it was found out during the study period that in 2016 a single family (M/s Alemtula) have harvested approximately 5000-10000 Kgs of tomatoes. Apart from tomatoes, the villagers also cultivate cabbage, carrots, broccoli, maize, cucumber, chilli, brinjal, pumpkins etc. Tomatoes, chilli, broccoli and cabbage are cultivated on a larger scale than the other vegetables. Thus in this way many of the farmers earn substantially. One lady farmer Temjenmenla has admitted that though she does not have big farmland yet she earns Rs. 60000/- in 2016.

Farming is now done not only for self-sustenance but also for the economic development of the family. The many disadvantages of jhum cultivation have led the farmers to adopt vegetable and other integrated farming. The major disadvantages of traditional method of rice cultivation as pointed out by the farmers were: economically unfeasible, low returns, makes land barren and time consuming. A few farmers in the village who still practice jhum cultivation are elders in the village who cannot afford to maintain vegetable farms or few who are still strongly tied to the traditional farming system mainly because they want to be secure with rice throughout the year. However, these few rice cultivators also practice vegetables farming along with rice for self-consumption and some even for the market.

Strength, opportunities and weaknesses:-

Vegetable farming has overtaken the traditional and age-old system of jhum cultivation in Longkhum village. With the climatic conditions favourable for the growth of varieties of vegetables, and especially with the boom of tomato and cabbage cultivation in the village, farmers of Longkhum village now earn substantially through vegetable farming. Farming was always for self-consumption and for family food security traditionally. But today, the villagers have a market-oriented farming system which helps them a secure and sustainable livelihood.

One of the most positive impacts of vegetable farming in Longkhum village is the improved standard of living due to economic development through vegetable marketing. Almost every household who has a vegetable farm has a steady flow of income throughout the year. Vegetable farming has led to an improved livelihood and also a change in the life-style of the people. Some of the developments in the village include construction of houses, buying of vehicles to transport the vegetables, usage of modern electronics gadgets like electric rice cooker, refrigerator, television and washing machine. There is also noticeable development in the village such as construction of agri-linked roads. The economic improvement in the village has also led to educational development in the village. The farmers can now afford to send their children to better schools outside the village and are able to fund their children for higher education.

Vegetable items produced in Longkhum village have the capacity to meet the needs of the entire state. The farmers are of the view that Longkhum village can produce sufficient tomatoes for those markets in the state and even outside the state. There is sufficient scope for more production and distribution. What is more essentially important is the marketing management and stocking which is still at an initial stage.

Our earlier contention that rice cultivation is labour intensive and unsustainable. However, a closer examination of the new farming system reveals that vegetable farming is more labour intensive but what is economically important is that the later farming system makes more profit and remains sustainable whereas the former is slow and low in term of economy. Every crop has to be sowed in its specific time and season. Sowing of different types of seeds in all seasons of the year keeps the farmers busy unlike rice cultivation. Another significant sociological finding of this study which,

indeed this concerns us most as a sociologist, reveals that there is a noticeable negligence and withdrawal in matters of social obligations in their effort to earn more money. The farmers tend to give less importance to the social obligations. The pastor of the village was of the opinion that church goes on Sundays has reduce significantly especially during the tomato and cabbage harvesting seasons.

Challenges and problems;-

Though the farmers put a lot of efforts to improve the production of vegetables on the one hand and protect the forest and its resources on the other hand by conscientiously utilizing it, the village is confronted with numerous obstacles in their Endeavour for a more sustainable livelihood. Some of the challenges and problems faced are-

Lack of market support and linkages:-

One of the major challenges the farmers in Longkhum village face is the lack of proper market support and linkages. No proper linkage with outside the state market makes it difficult for the farmers to sell off their produce. The absence of a fixed selling and buying rates of the vegetables also makes the marketing of the vegetables a demanding task for the farmers. The fear of not disposing off the vegetables on time makes the farmers to sell off their produce at a cheaper rate or wholesale rates which ultimately loses their chance of a better earning.

Lack of proper infrastructure and facilities:-

The lack of proper means of transportation makes it hard for the villagers to transport their produce to the urban markets. It may be noted, only one passenger bus plies from Longkhum village to Mokokchung town. there is scope of marketing their produce in the neighbouring towns like VK town and Wokha town respectively, however, such system of marketing and transportation has so far been in negligence. The farmers are yet to equipped with the facility of standardized packaging therefore suffers severely when it comes to competing with farm produce that comes from mainland India.

Lack of proper planning:-

Vegetable farming and permanent farms being a very recent start and development in the village, there is an absence of proper management and planning of the produced and its returns from the farming. Farm maintenance and cultivation is done using traditional methods which sometimes are unfavorable for the crops. The farmers also do not maintain records of their crop

yields in a season therefore for many farmers annual return of a family remain unaccounted hence difficult to say of their better off or worse.

Lack of support from the state government:-

In the initial years of cultivation of vegetables, the state government through the department of agriculture and horticulture assisted and sensitized the farmers on different types of vegetable cultivation. Seeds were also provided in the initial years. The departments also build two vegetable storage houses in 2007-2008. However, the aids and the support stopped after the initial years. The government no longer assists or supports the farmers. They have to look for the hybrid seeds and also locate the markets by themselves. At one time, the government provided free tomato seeds to the villagers but the seed turned out to be expired and did not grow well.

CONCLUSIONS

Agriculture and its allied industries are the major contributors to any Naga village economy, as such, the villagers depends on agriculture and its produce for their livelihood. Vegetable farming among the Longkhum village farmers is of very recent development. In about a decade of vegetable farming, the villagers have realized the benefits and the advantages of growing vegetables. Traditional cultivation of rice is declining rapidly whereas vegetable farming is progressing largely as it gives better sustenance. The rationale that their lives and livelihood depends on it has made them give utmost importance to sustainable growth and management of their vegetable farms. One interesting finding in this study is the very fact that except for a very few farmers like Mr. Mepuchuchang who has now developed his farm in a permanent location, many of the farmers still follow the traditional style of jhum cycle. Therefore what has change from the tradition is only the cropping pattern i.e from rice to vegetable.

The shift from traditional rice cultivation to cash crop vegetable cultivation is making a foot print in the village economy. Impacts on socio-economic is undeniable because of new farming system, so much so that its ramification socially and economically need to be monitored and supervised constantly. The advice of the experts in the subject matters should be taken, since the entire concept of vegetable farming is of recent start therefore what is thought as sustainable at this situation may not turn out to be sustainable in the long run.

A better livelihood can be secured and the production and distribution of vegetables can be improved and increased. In such a nascent stage where

village economy is in a transition, government should provide sufficient logistic support in order to take off the economy from an unsustainable traditional method to sustainable modern method of farming so that Longkhum village can be a role model in the reconstruction of rural economy.

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Person interviewed:-

M/s. Temjenmenla age around 32, from longkhum village interviewed on 10th July, 2016

Mr. Mepuchuchang age around 74, from longkhum village. Interviewed on 10th July, 2016

M/s. Alemtula age around 40 yrs, from longkhum village. Interviewed on 10th July, 2016.