



# Agriculture and Economic Aspects of the Southern Angami Nagas in Nagaland

**DR. JESSYMOL MV**

Vice Principal, SFS College Aalo

Department of History

Yeggo Village, West Siang Dt.

Arunachal Pradesh

ID-ancymullan72@gmail.com

## **Abstract**

Agriculture in Nagaland is considered as the prime source of revenue for the state. It is predominantly an agrarian economy. Agriculture is the basis and key to socio-economic development of Nagaland with its well defined traditional agricultural practices. Economy of Nagaland gets a major boost through the agricultural activities of the State especially among the Southern Angamis. Agriculture has a vital role to play in the economic development of Nagaland, which is a key factor in the economic growth of southern Angami villages. Agriculture is one of the significant contributors to the Gross State Domestic Product (GSDP) and the Southern Angami villages are depending on the agricultural economy. The main economic activity of the villages and the important source of livelihood is Agriculture. The people of southern Angami villages are hardworking in the field which are manually done. Self-reliance for the economic progress through the use of natural resources is prime in them. They follow indigenous agricultural method of settled terrace and Jhum cultivation considered as the strongest systems in the villages. With poor irrigation infrastructure and dependency on monsoonal rains led to the low productivity, degradation of natural resources, and decline of indigenous system of agriculture methods. The present paper focuses on the role of agriculture in the economic aspects of southern Angami Nagas and the problems relating to the decline of the economy today.

**Keywords:** *Nagaland, Agriculture, Economy, Villages, Livelihood, Southern Angami*

## Introduction

North-east India accounts for 3.4 percent of the agricultural land of the country, it contributes only 2.8 percent to total agricultural production, underscoring the low productivity of the region's agricultural sector (RBI, 2005). Nagaland, a North Eastern state of India located between  $25^{\circ} 60'$  and  $27^{\circ} 40'$  N latitude and  $93^{\circ} 20'$  and  $95^{\circ} 15'$  E, longitude with a geographical area of 16,579 sq. km, it has total population of 1,980,602 (Directorate of census, 2011). Agriculture falls in the priority sector in Nagaland and continues to be the mainstay of Naga life. In Nagaland the department of Agriculture was established in the year 1963. Southern Angami villages are narrated as, "Summits of the lofty peaks are thickly wooded, clad with evergreen vegetation; they abound in varied flora and fauna. The lower hills have become deforested owing to the practice of both slash and burn and terrace system of cultivation" (Gazetteer of Kohima, 1970,2). Every aspect of the village life is entangled with agriculture and their rituals, ceremonies and festivals are related with the different aspects of agriculture. The major and high yielding crops of Southern Angami includes rice, maize, yams, sugarcane, potato and fruits crops. The invigorating breeze and the temperate weather make life pleasant, as these are incentive for manual work and physical effort. Agriculture is one of the important contributors to the net state domestic product and is the largest employer of the workforce in the state, it is the basis and key to socio-economic development of the society.

North Eastern Region is inhabited by various ethnic groups who depend largely on agriculture, and the shifting cultivation is considered as a major source of rural economy (Bhatt, 2006). Angami tribe is one of the 17 recognized tribes of the present state of Nagaland. Today the Angamis are found in four regions of Kohima district viz, the western Angami, Southern Angami, Northern Angami and the Chakhro Angami. The southern Angamis are called as Japfüphiki because they live at the foot of Mount Japfü which is the second highest mountain peaks in Nagaland. Southern Angamis are described as - In the land of the Mountains, to the rising Sun, down the valley of the Pines with the cool breeze and the beautiful terrain, lived a group of Tribals called "The Mighty Warriors" of the Land (Kezoma village students union, Souvenir, 2018). At present they wish to call themselves as 'Japfüphikimia' meaning 'those living in the shadow or vicinity of Mount Japfü', the highest peak on the Japfü range of mountains. Southern Angamis are not strongly determined people and life is too good; nothing much to worry and they follow the way of 'easy come easy go' is the theory of life (Hibo, 2012). Southern Angamis as known today inhabits a contiguous geographical area situated in the foothills of mount Japfü with thirteen government recognised villages.

**Southern Angamis according to the census of 2011**

Name of the Village	Male	Female	Total
Kezoma	1078	1039	2117
Kezo Basa	249	241	490
Kezo Town (UR)	569	553	1122
Kidima	3547	3613	7160
Sakhabama	183	214	397
Mitelephe	122	123	245
Pfuchama	455	415	870
Phesama	1511	1550	3061
Mima	1044	1105	2149
Kigwema	1858	2014	3872
Kigwe Town (UR)	636	592	1228
Jakhama Hq (UR)	3576	1640	5216
Jakhama	2301	2394	4695
Sweba (Viswema)	193	195	388
Viswema	3576	3841	7417
Khuzama	2476	2684	5160
Total	23374	22213	45887

Table:1.1 Source: Directorate of Census Office Kohima (copy of 2011 Census)

The agricultural season which begins in March and continues up to August is Kharif while the Rabi season starts in September and ends in December every year. Shifting and terrace cultivations remain the dominant forms of land use practice in the State. Southern Angami Nagas, the land is the main natural economic resource, it is divided in to three types village land, Clan land and Individual land. Village land, it is the common property of whole community and every member has equal right over it. Clan land, it is given to those who do not have enough private lands to support themselves for the Jhum cultivation. Individual land is where every family owns some private lands, generally Jhum lands and terrace fields. Agriculture has traditionally continued to be the main source of livelihood of Naga life. Agriculture is the main economic activity of the Angami Nagas, with settled terrace cultivation as the principal method (D'Souza, 2002). Nagaland has a highly friendly agro-climatic condition for cultivation of a wide range of fruits, vegetables, plantation crops and flowers. Southern Angamis depend on different economic aspects and had the practice of two types of farming wet rice cultivation on terraced fields and shifting or jhum cultivation.

## **Wet Rice Cultivation on Terraced Fields**

The Directorate of economics and statistics of Nagaland, signifies the land as extremely fertile and can produce the best quality of agro-based, horticulture and floriculture products through organic farming. Shifting and terraced cultivations remains the dominant forms of land use practice in the state especially among the Angami Nagas. The terrace cultivation can be best highlighted in the words of L.W. Shakespeare (1914),

*To a stranger suddenly arriving in the Angami country nothing strikes him with greater surprise and admiration than the beautiful terraced cultivation which meets the eye everywhere, on gentle hill-slopes, sides and bottoms of valleys, in fact, wherever the land can be utilized in this way. In preparation, upkeep, and irrigation, the greatest care is taken, far in excess of anything seen in the north-west Himalayas. The terraced fields are often bordered with dwarf alder bushes, are carefully irrigated by an elaborate system of channels bringing water down from mountain streams, and luxuriant crops of rice are grown on them.*

The terrace fields are prized property of the Southern Angamis and the most valuable, social status of a person is directly related to the number and area of terrace fields he owns. People traditionally use the manure of the droppings of their domestic animals such as, cows, pigs, etc. The terraced fields were permanent unlike the Jhum cultivation and the soil of the terrace lands is very good, apart from being kept well manure, it is cultivated by means of artificial channels, along which the water is often brought from very long distance. Terrace Rice Cultivation (TRC) is a permanent settled farming and is the main livelihood activity and the pride of the people (Kikhi, 2012). The terraced cultivation is less labour intensive but more yielding and profitable.

### **1. The Jhum or shifting cultivation**

In India, about 2 million tribal people practising the jhum cultivation in approximately 11 million hectare of forest land, of which north-east India accounts 7.76% of total Jhumming area of the country (Gogoi, 2019). The Jhum or shifting cultivation was the age-old traditional cultivation system most popular among the Naga farmers. Where the land is selected for cultivation for one or two years and thereafter left it abandoned for several years. It is a system of rotating cultivation on a plot of land mostly found in hilly regions especially in southern Angami area. About 73% of the people in Nagaland are dependent on agriculture and most of them are involved in shifting cultivation, because of force of its natural hilly landscape and traditional way of cultivation (Nakro, 2009). It is a farming system based on labour intensive and low subsidy which provides sustainable food production and security to the farmers living in the mountainous area and in the most extensive hilly geography. The traditional methods of cultivation is also affecting the land and environment. As the population increases, the pressure on the land resource forces the locals to reduce the time duration for Jhumming.

According to L. Atola the shifting cultivation areas are thickly wooded, clad with an evergreen vegetation. Most of these are being deforested due to the preparation of the slash and burn system of cultivation. The forest of the Jhum field is cut and dried which has a ritualistic and social importance (1999). While slashing/clearing the forest for cultivation, they do not cut down or uproot the trees totally. The branches of big trees are chopped off and the small trees are cut above the ground and copies are allowed to grow again. The tree stubs and poles help

in controlling soil erosion and their re-growth helps in the regeneration of forest. Fire is set generally in the month of January to February with proper fire line. No manure or pesticides are used apart from ashes and the rest from the burned forest which adds nutrients like potassium and phosphorous, straight to the soil. The burned soil is spread throughout the field for fertility and the tradition of burning method controls the weeds to grow, fungus, insect infestations and temperature, it enhances the release of other native soil nutrient elements. The agricultural economy of Nagaland is developed through irrigation, water channels that are controlled by bamboo which provides unhindered irrigation facilities to the crop fields. Shifting cultivation causes deforestation and highly destructive but also having protective values of forests. Jhum cultivation is the highest employment sector in Nagaland.

## **2. Economic dependency on Natural Resource**

The economy of North East has full of potentialities as different valuable natural resources are found within the region. Due to diverse natural location and lack of proper attention, the region couldn't nourish with its resources. Natural resources have always promoted emergence of local art, crafts and associated local culture, thus the promotion of small-scale industry and provided employment opportunities. Southern Angami villages are blessed lavishly with abundant resources, and they are deeply attached to nature and their life is fundamentally intermingled with environment (Zelsuvi, 2014). Nagaland has followed the age-old practice of raising crops under organic conditions. The standard of living condition is very simple, healthy living and independent. The people can undertake multiple organic cropping and commercial rearing of livestock on large scale. The nature reserve provides enormous species of medical plants, cultivation in cold climate medical spices and herbs, and setting up worth accumulation. It may become promising ventures for the people to flourishing to the international markets.

## **3. Forest Products as a Source of Economy**

According to the forest survey of India (1997), in Nagaland the forest area is 16,579 sq.km and in (2011), 13318 more than 90% of the forests are covered in Nagaland (Das, 2015). The forest has been an important source of sustenance and livelihood for the people of Nagaland with all the basic needs like food, fuel, wood, fodder, medicine and timber etc. Forest also plays an important role for providing building materials, herbs and wild vegetables, honey, and game. The forest wealth provided the materials for their shelter and tools, household utensils etc. for their daily life, which satisfied their simple way of life (Zingkhai, 2013). It plays a vital role in preserving the biodiversity and providing ecological services like reducing soil erosion and improving water-flow. Nagaland has tremendous forest resources and forest cover is above 80.5 percent while forest area is 56 percent, dense forest is 32.53 percent in the state (Bhatt, 2006). Forest represents the richest natural resource of the state and wealth of herbal, medicinal and perfumed plants with tremendous economic potentials and sustainable timber industries are the major source of income. Rich species of flora, valuable medicinal and ornamental plants, vegetable and fruits, valuable trees like Teak, Neem, Halokh and Bamboo etc., birds, animals are famous for forest produce.



#### 4. Indigenous Art and Craft Industries

Southern Angami area the people depend on traditional cottage industries like weaving, carpentry, handicrafts and blacksmithing. Bamboo is a great product of economic and cultural value, because it provides the body and soul for traditional architecture, crafts and tools. According to Hutton (1969) not only the cultivation but also important industries like weaving, blacksmithing, basketry, mat and grain storage making, wood carving, making musical instruments etc. for the economic development of the Angamis. Spinning and weaving of traditional clothes are done by the women which play as a source of income adding to their economic needs. The handloom and handicraft sector in Nagaland has immense potential to flourish due to abundant availability of raw materials, skills, rich cultural traditions, and expertise like pottery, carving, basketry, spinning, and weaving etc. Nagaland's agro-produce, handlooms and handicrafts enjoy recognition in both national and international markets. The land is fertile and produce the best quality of agro-based, horticulture and floriculture products through organic farming.

#### 5. Animal husbandry

The Department of Animal Husbandry has estimated that Nagaland requires Rs 605 crore worth of meat and eggs annually for local consumption. Nagaland has a large number of pigs, cattle, goat, and Mithun. Currently the production is worth only Rs 230 crore. Import of meat and meat products not only increases the cost of food but also results in outflow of resources. Animal husbandry plays an important role in the village economy and their livelihoods (Nalae-o, 2016). Rearing of livestock like cattle, poultry, and piggery is another important pattern of livelihood, which provide nutritious food like milk, meat, eggs, serve as a major source of energy. Southern Angami village especially Mima, traditional Bee keeping is practised as animal husbandry for their use as well as to sell in the market thus, the village is known as Honey village. Inadequate electricity – livestock used as powerhouse for farm operation, absence of fertilizer factor – utilization of livestock manure as organic fertilizers. Livestock provides additional income and employment to the farmers.

#### 6. Problems of agriculture in Southern Angami Area

Agriculture is the main economic activity in Southern Angami area and is overwhelmed by several problems. Today the people are experiencing extensive degradation, massive deforestation and forest conversion due to increasing population pressure, decreasing cycle of jhum cultivation, urbanisation, privatisation of community forest and exploitation of timbers and other forest produce for commercial purpose (Zingkhai H.G., 2013). With the increase in population in Southern Angami area more pressure on the forest land and cultivation is increasing for food supply, settlements and fuel wood. In Jhum cultivation due to reduced crop cycle and less time to the land to reclaim its nutrients through natural process led to widespread damage of the forest and environment, some of them are natural and others are manmade.

##### 7.1. Transportation and communication problems

In Southern Angami area, development of roads is very poor and not connected to the fields, there is no approach roads. The longer the distance the more the transportation and travelling charges, this became more difficult when there is poor road condition, they have to pay high amount to bring the product to the town for the

sale. It is difficult during the rainy seasons as the roads become very muddy and they don't have any means for transportation of their goods. The communication facilities are constraints impact faced by the local farming communities. People have to walk on bare foot for miles together to reach their fields, make them tire-some and time-consuming.

## **7.2. Lack of marketing facilities**

An important difficulty faced by the southern Angami vendors is lack of space to sell their products, thus retailing the goods is more profitable than selling it at wholesale rate, selling the products sitting at vantage points of the village, many a times they are expelled by the Municipal councils as they are allowed to sell only on certain designed location. They are also often harassed by the other shop keepers who chase them away when they try to sell their goods in the shelter of the shop's verandas. There is no proper marketing infrastructure, like storage rooms to preserve goods for overnight especially for the vegetables and plants. Southern Angami area, agriculture had less impact in modernisation of agriculture, because poor adoption of modern technologies, low consumption of fertilisers. The most important reason for the slow growth of economy is lack of location-specific and system-based technologies. Therefore, technique of cultivation remains the age-old practices of using implements, tools and methods of Jhuming and terrace cultivations are not economical due to loss of soil fertility and loss of micro-organisms from the soil (Gogoi,2019). The unscientific form of farming system thus leads to resource degradation as well as low productivity of soil in long run.

## **7.3. Lack of Assistance and manpower**

The study reveals that the people do not get support from the state government, it is not easy to take loans from the banks for their capital investment as they do not have the resources and access to the credits. It is also revealed whenever there is a government project or scheme such as distribution of seeds and saplings, financial assistance to start projects, development schemes, they do not have any chance of benefitting from it. Lack of exposure to outside world make the cultivators ignorant of development of agriculture and the sale of the product with cheap price. Exposure give efficiency in knowledge in regard to input, market price, market control preservation, storage, profit and loss and other information about the agricultural life-style. Lack of quality of seed and planting materials are out of reach of the majority of farmers, especially small and marginal farmers. Lack of manpower is required for cultivation in Southern Angami Area for cleaning fields for Jhum and terrace cultivation. Skilled manpower is required for the preparation of terrace-walls, cleaning weeds, transplantation and harvest. Today the skilled people are less to work in the field because of education and employment. Thus, to have skilled labourers, one has to hire at the high wage or to take help from others in terms of exchange labour.

## **7.4. Remote, small and fragmented land-holdings**

The knowledge inherited by the people for the cultivation is the product of over centuries of experience. Skill and information are changing with the modernisation. However, there is lack of the knowledge for developmental facilities of agriculture and low income. The agricultural Directorate and its office provide agriculturists giving loan, subsidy, supply of seeds, HYV, fertilisers, pesticides etc. The use of fertilizers in NE region is low compared to the rest of the country (Gogoi, 2019). But these available facilities are unknown to some

of the cultivators because of backwardness and ignorance. Fragmentation of the holdings is one of the main causes of low agricultural productivity and backwardness of agriculture. Time and labour are wasted in moving seeds, manure, implements and cattle from one piece of land to another, and irrigation becomes difficult on such small and fragmented fields.

### 7.5.Natural disasters and changing cropping pattern

The poor soil condition, less sunshine, excessive humidity and frequent rain and landslides are the natural constraints that put down the agricultural yield. The slash and burn cultivation practices are not economical due to loss of soil fertility and loss of micro-organisms from the soil. The widespread practice of Shifting/Jhum cultivation have caused the fallow, or idle, period to be cut to a couple of years which has led to soil erosion and loss of soil fertility. Systematic harnessing of this environment for growing high value crops will open up new dimensions for improving the income and livelihood of the farmers. Lack of storage facilities compelled them to sell their produce after the harvest at the prevailing low local price, deprives the farmer's income. Reduced jhum cycle declines crop yield and insufficiency of food at household level (Bhatt, 2006). The cultivators have to look after agriculture not only as livelihood but as a source to meet better standard of living. But most of the time the agriculture fails because of the changing cropping pattern, raising temperature and natural calamities.

In conclusion in spite of number of barriers that they face daily such as harassments and evictions, lack of access even to local markets, poor transportation and infrastructures, the people work tirelessly for their livelihood because their families depend on the agriculture. Thus, the southern Angamis largely dependent on agricultural and Natural resources for their self-reliant life, and be socially and economically empowered. Since agriculture contributes significantly towards the economy of Nagaland, the government of the state is taking major initiatives to develop this particular field. The geographical remoteness and inaccessibility, hilly terrain, lack of infrastructure, population composition, scarce resources highly hamper development. The state is not self-sufficient in food and still depends on the import of food supplies from other states. The vast indigenous knowledge, rich culture and traditions practised for the agricultural management is losing its grip for agricultural sustainability. However, the traditions are still followed and the people practice unique and ethnic technique of preserving the fertility of the land determinately for the benefit of future generations.

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