

# Changing Pattern of Rural Livelihood: A Case Study of Sungratsu Village, Mokokchung District, Nagaland

Dr T Temsu Imti<sup>1</sup>, Ms Temjensangla Pongener<sup>2</sup>

<sup>1</sup>Associate Professor, Department of Geography, Fazl Ali College, Mokokchung, Nagaland, India

<sup>2</sup>Assistant Professor, Department of Geography, Fazl Ali College, Mokokchung, Nagaland, India

**Abstract:** *Diverse ways of life emerges out of intricate and symbiotic relationship between man and his environment and nowhere is this more apparent than in indigenous communities. The unique lifestyle of each Naga community arises out of their intimate relations with their land and utilisation of particular resources in their area which dictates their activities. Given the subsistence form of economy, the relationship between land and man has never been exploitative rather one of respect thereby conserving and maintaining the biodiversity of the ecosystem. However growing population pressure on land and gradual change in climate has necessitated change in the traditional economy particularly in agriculture to ensure food security. In addition the need to keep pace with the competitive global market has necessitated diversification of economic activities thus bringing change to their traditional pattern of livelihood. Transition from traditional lifestyle to modern and developmental induced activities have affected rural areas in various ways ultimately changing their lifestyle often resulting into undefined living pattern requiring keen research and analysis of the changing pattern in the state. In recent years, land based livelihoods of small and marginal farmers are increasingly becoming unsustainable, since their land has not been able to support the family's food requirements and fodder for their domesticated animals. As a result, rural households are forced to look at alternative means for supplementing their livelihoods. Taking the various methodology the present research work aims to explore the traditional pattern of livelihoods and investigate the factors that led to the changing scenario of the aspects in Sungratsu village of Mokokchung district, Nagaland.*

**Keywords:** Traditional, economy, livelihood, patterns, changing

## 1. Introduction

Since centuries, tribal communities who have been living in and around the forests, practicing hunting and gathering activities, fishing and shifting cultivation but are at present facing difficulties for their survival. The issue of livelihood has become a burning topic in the context of tribal communities. Their dependence on forest has not merely been for livelihood, but, also for their cultural requirement. Fernandes et al (1984) argue that the destruction of forests over the past few decades has deprived tribes of their livelihood, particularly source of food. It has also resulted in their impoverishment, indebtedness and in many cases land alienation and even bondage. This study is basically an attempt to describe the economy of the Nagas in a changed ecological context and tries to trace the path of transition.

The Nagas live in one of the most biodiversity-rich areas of the world, where they are engaged in a range of occupations for livelihood. While there is enormous diversity among the Naga communities, common to all is a strong cultural attachment to the land, and their dependence on the land, forests, and the natural resources found therein for their traditional livelihood. The Nagas have well-defined institutions and live in their respective territories in self-sufficient villages with their own territories, lands and forests. Traditional occupations, which constitute the chief sources of livelihood for most of the rural people in Nagaland include farming, livestock raising, fishing, hunting and gathering, making of handicrafts and food items, sale of local agro-forest products, small scale mining, among etc.

A particular household practices multiple livelihood activities such as farming, handicraft and basketry, gathering from forest, hunting, fishing, labor, etc. Each community or household of a particular community may have their own way of securing its livelihood. Thus different ways and means, practices, methods and approaches are adopted in order to achieve a sustainable livelihood.

## 2. Objectives, Data Base and Methodology of the study

- 1) To understand the traditional pattern of livelihood of rural community in the study area.
- 2) To find out the changing pattern of livelihood and their sustainability is due to a set of geographical factors
- 3) To investigate that decrease in the practice of traditional way of farming is the result of change to another set of livelihood strategy
- 4) To identify the adverse consequences due to shifting and adoption of fresh livelihood strategies by the rural populace

The datas are executed in this study as various secondary datas are obtain from the sources like publications, books, dailies, Govt. bulletins and records of village councils and organizations. Besides, primary datas are obtained through observations, interview of the locals through questionnaires and discussion with village councils.

As far as the methodology is concerned, it is inductive and empirical in nature. Besides, it is tested with geographic statistical methods and consequently represented by

statistical diagrams which depicts the picture of changing scenario of livelihood pattern.

### 3. Study Area

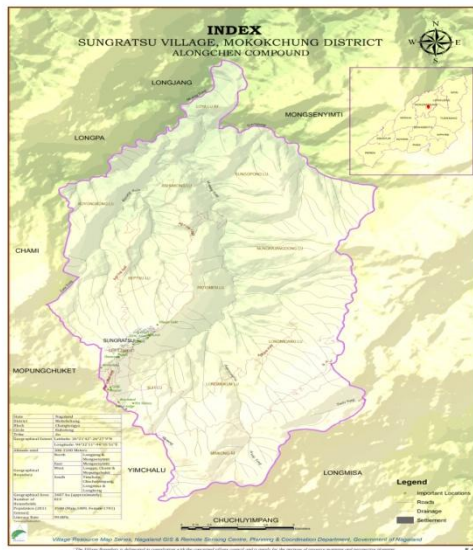


Figure 1: Map of Sungratsu Village Territory

Source : Nagaland GIS & Remote Sensing Centre, 2019

#### 3.1. Geographical Settings

Sungratsu village is located in the southeast of Mokokchung district under *Asetkong* range. It lies between 26 °24' N Latitude and 94 °36'E Longitude with an altitude ranging between 1025 meters to 1175 meters above the mean sea level. Sungratsu village qualifies as an average sized village of the Ao-Naga tribe, situated at a distance of 16 km from Mokokchung town. It has 819 households and a total population of 3,590 (Statistical handbook of Nagaland, 2012). It has seven major Ao tribal clan groups who are also recognized as original settlers of the village viz – *Jamir, Lemtur, Ozukum, Longchar, Aier, Walling and Mollier*. The village is divided into 10 *Khels* or *Mepu*, namely; *Jungli mepu, Alisumang mepu, Lenden mepu, Longsangya mepu, Walling mepu, Semchiyong mepu, Alempang mepu, Keyasa mepu, Alongchen mepu and Pongen Tenem mepu*. The forefathers of the village first came and settled at *Pongen Tenem*. It is said that they kept their load or baggage supported on the root (*sungra*) of a tree and hence, they named the village as *Sungratsu*.

It is impossible to have a proper understanding of the current and future trends in the livelihood pattern without having at least a basic understanding of the past, the traditional livelihood of any particular community. When we say traditional livelihood it is those occupations that are deeply rooted in customs and practices and have been followed by successive generations of rural peoples and their communities, traditional occupational practices were largely subsistence-oriented.

Rural life is community based, and natural resource management practices are governed by traditional mechanisms of customary laws and norms. These societies

have deep sentimental attachment and socio-cultural orientation to their land and territories in which their identity and culture is rooted. This relationship is often expressed through folk songs and dances, beautifully designed hand woven ethnic attires and woodcarvings, among others (Thingreiphi Franthing, 2010)

#### 3.2. Livelihood options

**Agriculture** constitutes the major economic activity of the people within the village, which is also the most important source of livelihood. Majority of the people are engaged in agriculture which is an extremely complex system and practiced is generally subsistence with little locally marketed surplus. About 99% of the household in the study area are totally dependent on shifting (*jhum*) cultivation with a variety of crops being cultivated and rice the major crop. It is a system that is dynamic over time and space and is a well-organized system which is ecologically viable. The cultivable areas are divided into 12 *jhum* blocks also known as *Alu puok* or *Aluyimdak likum* in local dialect, viz; *Lemchalu/yimchalu, Suetlu, Longmekumlu, Longmidanglu, Nungkajangdonglu /Ningkamenlu, Sungkoponglu /Jangkoklalu, Loyalu/Lizalu, Ashiakonglu, Salolu/Septsulu, Shititsuyonglu, Khoyongkongmanglu and Meinkonglu*.

The forest of the *Jhum* field is cut and dried which has a ritualistic and social importance. While slashing/ clearing the forest for cultivation, they do not cut down or uproot the trees completely. For example if the trees are very big only the branches are lopped off; other trees are cut 8 cm above the ground and the coppices are allowed to grow again. These tree stumps 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 or February with proper fire line. No manure or pesticides are used apart from ashes and the residue from the burned forest which adds nutrients like potassium and phosphorous, directly to the soil. The burned soil is spread uniformly throughout the field so that the nutrients are evenly distributed. Burning of jungle also control potential weed re-growth, fungus and insect infestations and the high temperature during burning also enhances the release of other native soil nutrient elements (Hormila. G. Zingkhai, 2015)

**Kitchen garden** to a Naga family can be defined as 'land surrounding a house or easily accessible within minutes on which a mixture of annual and perennial plants are grown, together with or without animals, and largely managed by the household members (women) for their own use or commercial purposes'.(Nakro, Vengota, 2009) This is too another option of livelihood for Sungratsu villagers.

Over centuries **gathering** of materials or products from the forest like wild vegetables, fruits, herbal medicines, tubers, honey, ferns, *etc.* and other forest based wood products has been an integral part of the Naga society and still form an important part of the daily lives. Gathering is usually done by women, although this is not always the case, and men, and children of either sex, also engage in gathering items of food from the forested areas. These forest products are both for local consumption and for sale in the market as the households depend on these collected forest products for

thier livelihood. Some of the commonly gathered food items sold in the market are bamboo shoots, mushrooms, banana flower, fig, wild walnut, peach, plum, pears, goose berry, banana, rasp berry, jackfruit, wild apple, ferns, leek, leaves of passion fruits, and spices like Cinnamon, honey, betel leaves and vines, cane fibres, ginseng, wild flowers, orchids, broom grass, game meat, fish, edible insects, firewood, etc.

**Fuel wood and bamboo reserves** are one of the most important needs of a family's existence and the villagers collect firewood from dead trees which die naturally, or, dried branches and old and mature trees are selectively harvested without affecting the regeneration of the forest. For many villages, firewood is a major source of livelihood, being next only to rice in importance. It is used for a host of other utilities like cooking, heating homes, etc. Firewood reserved forest is an area just at the outer margin of the village boundary where naturally sprouting useful species of trees including bamboo are maintained for domestic use. This forest type is a replica of main forest except for the size of trees which is smaller in this area and that it normally surrounds the village (Nakro, Vengota, 2009)

**Livestock** is an important source of supplementary income for livelihood. Rearing of domesticated animals such as pigs, cows, chicken, ducks, goats, has been an important source of supplementary income. It is usually practiced to provide a source of protein in the diet, a ready source of cash for emergency situations and to meet common household and family expenses.

**Weaving** by The Naga women are well known for their beautiful hand woven attires worn by both male and female. Weaving is one of the traditional skills of the Sungratsu village which is a skill passed down throughout generation. Weaving is done using traditional looms bringing out different designs to produce skirts, belts, shawl, scarf, blankets and other items with indigenous motifs and design. Beadwork is another skill very much alive which is done by womenfolk.

**Basketry** is generally done by men folk as before the advent of modern storage containers, baskets were used both for storage of household goods and valuables, and for transporting goods. Large baskets were also made for granaries to store rice. Today, baskets are still used to carry fruits and vegetables to and from the marketplace, but modern suitcases, cupboards and other containers have

largely replaced the use of traditional baskets. However, baskets for everyday use in the fields, smaller baskets for fetching firewood and bamboo vessels for water are usually made by both men and women but the more artistically designed baskets that are used for storing valuables or for carrying wedding gifts are usually made by expert men.

**Stone quarrying and masonry is practiced** by the Sungratsu villagers and have mastered the skill of stone quarrying and masonry and are renowned all over the Ao areas. They are hired for construction of buildings, retaining walls, by both private as well as for governmental works.

#### 4. Changing pattern of livelihood

Traditionally the livelihood options were not much diversified. A farmer held on to one job throughout his life, worked in the same community in which he had been born, with no formal qualification or training but particularly specialized knowledge and skill that was passed down to generations in rural areas. The job was secure, stable and sustainable that largely evolved around farming, it was work that was valued (Michael Woods, 2005) Referring to table 1 and Fig. 2 below it is being depicted that the larger segment of household are occupied by cultivators and government employees Within the span of 15 years period, in the cultivators segment, percentage of shifting cultivators have been decrease from 42.8% to 22 % and permanent farmers increased from 10% to 16.8%. There is also noticeable rise in the percentage of government employee from 28% to 33.6%. Besides, as there is declining trend in the percentage cultivators, all other segment of means of livelihood shows an upward in the percentage of households.

**Table 1:** Identified means of livelihood in Sungratsu village

Source of livelihood	Household in %	
	2001	2015
Shifting Cultivation	42.8	22
permanent farm	10	16.8
Government employ	28	33.6
Private services	3.2	5.2
Petty business	2.4	3.6
Shopkeepers	1.6	2.4
Retired Persons	8.4	9.6
Wage earners	2.8	4.8
Rental owners	-	-
Others	.8	2
		100

Source : Field survey 2015-17.

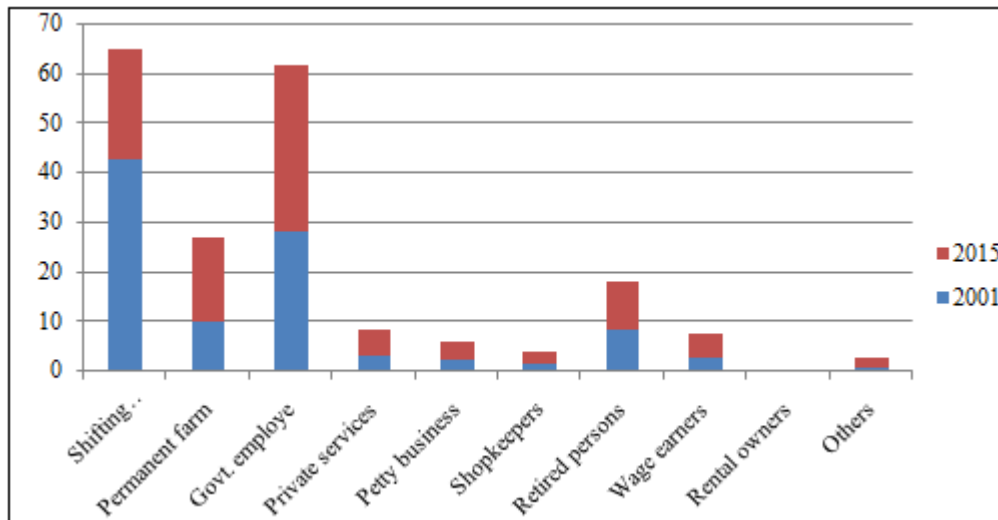


Figure 2: Identified means of livelihood in Sungratsu Village in 2001 and 2015

Source: Field survey 2015-17

Growing population pressure on land and gradual change in climate has necessitated change in the traditional economy, particularly in agriculture to ensure food security. In addition, the need to keep pace with the competitive global market has necessitated diversification of economic activities thus bringing change in the traditional pattern of livelihood. Transition from traditional lifestyle to modern and developmental induced activities have affected rural areas in various ways ultimately changing their lifestyle often resulting in undefined living pattern requiring keen research and analysis of the changing pattern in the state.

In recent years, land based livelihoods of small and marginal farmers are increasingly becoming unsustainable, since their land has not been able to support the family’s food requirements and fodder for their cattle. As a result, rural households are forced to look at alternative means for supplementing their livelihoods. As employment in primary sectors such as agriculture, forestry, fishing, hunting and gathering and other traditional rural industries has declined and that in the service sector increased, so the livelihood pattern have been redefined. Some of livelihood strategies that villagers switched over are

Table 2: Factors affecting livelihood patterns in Sungratsu Village

Factors	Household percentage
Climate change	30
Infrastructure	80
Limited Natural resources	0
Infertility	60
Marginal decrease in land ownership	15
Land use pattern	30
Migration	50
Govt. projects, plans and schemes	40
Decrease in quantity of labor force	40

Source: Field survey 2015-17.

**Agriculture:** Dependence on agricultural output could no longer provide year round security in terms of finance due to continuous decline in farm yields. This is not surprising since most of the rural farmers are subject to varying degrees of uncertainty due to climate variability and post-production loss. It is for this reason that diversification of rural income has become common among those who wish to live, at least, an average life. Since non-agricultural activities in many instances yield as much returns as subsistence farming the only option for those without access to productive farmlands is to subject the natural environment to other activities such as sandblasting, stone extraction and small scale mining (Nancy M.Wells, 2000).

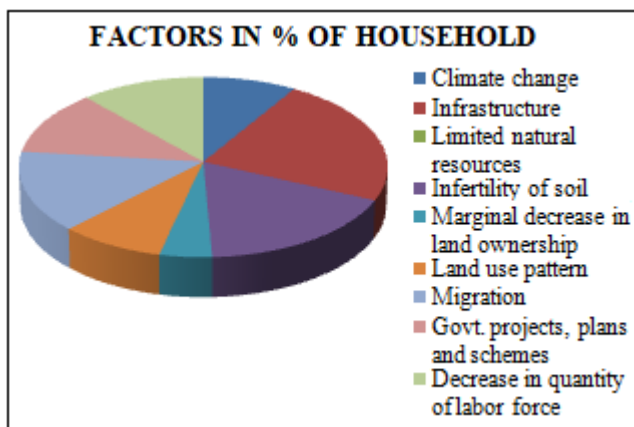


Figure 3: Factors affecting livelihood patterns in Sungratsu Village

Source: Field survey 2015-17

At present the average annual yield of rice in jhum fields is 40-50 tins, the highest yield is 100 tins whereas 3 decades back, every household produced an average of 500-600 tins per year, which was sufficient to sustain the whole family for the whole year. Many households have given up rice cultivation in the jhum fields and given more importance to other crops, especially yam leaves out of which the famous dish of the Ao Nagas known as *anishi* is made.

Jhum fields have decreased on account of a number of factors including demarcation of reserved forests, creation of community protected forests, population increase, changes in land use pattern, migration, introduction of Agricultural and Rural Development Schemes aided by the Govt.etc. At present there is road connectivity to at least 10 jhum blocks which gives the villagers easy access to their fields.

Out of the 12 jhum blocks, *Loyalu* and another two blocks in *Meinkonglu* had been reserved for wild life and biodiversity conservation. In the 2007 *Lemchalu/yimchalu* was again converted independently to a new farming village. In its initial stage *Yimchalu* was taken up as a model village under the Horticulture Technology Mission (HTM), under which orange and passion fruit were planted in an area of approximately 2 sq km. The productions for few years have been good and many farmers have profited immensely, however within a span of 7-8 years the production levels have plummeted. At present the production of oranges and passion fruit is very low. Being discouraged, the farmers have started planting other plants like pomegranate, litchi, *Yongjak* (tree beans) and varieties of bananas, which has positively added income to their livelihood.

The Nagaland State Department of Horticulture and Agriculture on perceiving the potentiality and suitability with the climatic type, and soil assisted the villagers to start cultivation of vegetables like sweet pea, cabbage, beans, onion, beet root, carrot *etc* on a large scale.

On the economic dimension, the village is largely characterized by jhum cultivation, although of late, secondary occupations of trade and commerce and other cash generating activities like developmental contract works significantly adds to their income. Other cash earning activities within the village are also contributed by the salaried staff of Governmental departments.

**Logging:** Logging and commercial plantation as afforestation in Sungratsu is a recent introduction. It is a very profitable means of livelihood and 15% of the household is engaged in the logging trade to earn their livelihood. This is encouraged by the availability of transportation facilities and taking advantage of its demand in the market. Commercial logging is one activity leading to over extraction of forest resources. With a significant increase in population pressure and human greed, pressure is also created on the forest resources, soil quality is degraded severely and natural forests are converted for food production and other purposes. Hundreds of species of flora and fauna have disappeared, while many others are threatened by habitat loss and numerous degraded land areas.

**Vegetable vendors:** Sales from farm products, animal products, forest collection, and kitchen garden offer sources of cash income for many households. Out of the data collected 10-15 households draw their income from the sale of food products either collected from the forest or produced on homesteads. This is augmented by sale of fish, crabs, frogs *etc* during monsoon season. In the year 2015 some concerned villagers volunteered to construct marketing shed in the National Highway 2 known as the *Meinkong* marketing shed, where agro-forest vegetables are sold by the women folk.

**Quarrying:** Some households seek livelihood alternatives from small-scale stone extraction because they find the occupation as the only livelihood alternative. They depend on day-to-day small-scale stone extraction, gathering and breaking of stones for sale as a major source of livelihood in

spite of the dangers it poses to the environment and the other livelihood activities such as farming. Quarrying is also a source of raw material (chippings and other stone aggregates) for building and road construction projects.

Quarrying provides direct and indirect employment to residents of Sungratsu. Direct employment comes in the form of those who are employed in the quarry as labourers, drivers, and those involved in rock blasting and breaking operations. It also includes self-employed individuals who operate small-scale quarrying. They buy rocks of various aggregates for resale purposes. The quarrying industry also provides indirect employment to ancillary sectors like drivers, wayside hotels and caterers.

There is however the concern that the establishment and operations of numerous small-scale quarries pose a serious threat to farming. The rich topsoil, which supports small-scale subsistence arable farming, is cleared to make way for quarrying. Moreover a health concern due to quarrying is another problem. About 78 per cent of the respondents had a history of an ailment, which according to them is related to quarry activities. Of those who had suffered some ill health related to quarrying the main health problems complained about include respiratory diseases, eye problems, muscle pains and malaria, with upper respiratory diseases dominating

## 5. Conclusion, Findings and suggestions

The common man's speculation for the plummeting production level in government aided programmes was mainly due to the failure of proper guidance and follow up by the departments concerned and the farmers' total dependence on the department.

The village is 16 kilometers from Mokokchung town, the district head quarters, and owing to its proximity to the town it is conveniently accessible by taxi and bus services, which takes an estimated time of only 40-45 minutes. The village enjoys all the benefits that the town can provide. It is also subject to much urban influences that give it the appearance of having lost its rural and traditional characteristics. Despite that appearance, it has managed successfully to retain its traditional roots, which is evident by the active and effective function of its village council, which is guided by tradition, customs and convention. In fact, it is described as a very dynamic village, drawing the benefits of change from the urban milieu and yet still drawing its sustenance as a social entity from tradition.

The change or shifting of livelihood strategies are governed by a set of factors like the decrease in labor force, Government projects and schemes, migration, decrease in ownership of immovable properties and infrastructure as socio – economic determinants. And also ecological factors such as land use pattern, low soil fertility, shortage of natural resources and climate change also resulted to shift in livelihood pattern.

There is a decrease of long term migration but there is tremendous increase in short term daily commuters like daily wage labourers, government employees, private

employees, moving to and fro from the village to nearby villages and towns. This is all because of its proximity to the National Highway and the availability of means of transportation.

The traditional knowledge and skill of weaving using traditional looms, basketry, wood carving, carpentry, handicrafts, is passed down through generations is fast disappearing, with only a few elders in the villages retaining this knowledge. Therefore initiative should be taken to regain and retain this traditional knowledge.

With limited job opportunities and the desire for money seeming to override the need for environmental protection, stone quarrying not only contributes to rural livelihood but also has negative repercussions on the health of the quarry workers, severe damage to the natural environment and environmental sustainability. The land is stripped of its vegetative cover making it more vulnerable to agents of denudation. Pockets of small and large gaping holes associated with quarrying activities not only destroys the aesthetic beauty of the landscape but it will also reduce the natural aquifers or water reservoirs which feeds the neighboring villages Even during the lean period, seasonal water suppliers from the nearby Mokokchung town fetch water from the perennial rivulets that originate from the reserved forest.

In order to control and reduce the extent of environmental damage caused by the quarry industry, the Environmental Protection Agency must enforce its environmental regulations. It must see to it that all those involved in quarrying operations have, as a matter of priority, the protection of the integrity of the environment (Felix et al, 2014). Awareness programmes should be organized by the village councils and also the other stake holders. Rehabilitation and awareness programmes should be initiated by the concerned departments and the village council to protect the forest, in the long run it will not only benefit the village but the whole district in particular and the state in general.

One can witness the positive economic impact, though in a small way, through the sale of organic local products from the farm and homestead, at the marketing shed. It is said that their family kitchen expenses is being covered through the sale of the products, which is certainly laudable. Effective collaboration among stakeholders should lead to conscious efforts at capacity building and financial support for small-scale enterprises and individuals seeking to diversify their livelihood incomes in order to cope with poverty in the community.

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