Chapter-1
Introduction
1.1 Introduction

The development and advancement of a region depends on the tactful utilization of resources and its proper management. Resource does not refer to a thing or a substance but to a function which a thing or a substance may perform or to an operation in which it may take part, namely the function or operation of attaining a given end such as satisfying a want (Zimmermann, 1933). The term rural resources comprise mainly of forest products, agricultural produce and all others obtained from the rural areas utilised to satisfy the needs of the people.

Mokokchung district located on the North Western part of Nagaland is endowed with varied geo-physical and agro-climatic conditions, making it a rich repository of biotic resources. It is considered to be among one of the biodiversity hot spot regions of the world. India is a mega diverse country and is home to nearly 8 per cent of the world’s total species of plants and animals. It houses four of the 34 global biodiversity hotspots:- the Himalayas, the Indo-Burma region, the Western Ghats – Sri Lanka and the Sundaland.

The favourable climatic condition with luxuriant forest cover provided the people enough resources in the past. The land could produce enough to meet the food requirements and the produce from the fields were sufficient. The needs of the people were limited so they were satisfied with the availability of the bare minimum requirement and therefore marketing of the produce was uncommon among the people. However, trade with the Ahom as early as the 13th century can be traced back that was carried out on barter system. The people of the district exchanged their
agricultural produce like ginger, chilly, pumpkin, pulses, cotton, betel leaves etc., in
the plains with salt, agricultural implements, dried fish, cattle, buffaloes, iron etc. An
important trade route was the Naga Ali which was constructed during the reign of
Ahom king Suklenmong and it runs from Bar Ali to Naga hills (Ghosh, 1979). There
was no road connectivity and due to the absence of vehicles for transportation of
those exchanged goods, the people had to travel on foot carrying all the goods and
essential commodities on their back. Even today some of the people in the villages
recount their journey to the plains for doing such trade which normally took one to
two days depending on the distance of their villages, for them to go down and come
back after doing the business. In recent years due to opening of road network and
availability of all the requirements in the market, such activities have become a thing
of the past. Today money is used as the medium of exchange.

The district comprises of 71.37 per cent (Census, 2011) of rural population.
Due to the practice of age old method of shifting cultivation by majority of the
farmers which is subsistence in nature and the restriction imposed by the difficult
terrain for large scale farming, the marketing of agricultural produce has not
developed in the district. According to Thakur (1997), shifting cultivation is a
primitive agricultural practice practised at the primitive level of operations under
unconducive surroundings for a sustainable agriculture. In this process the cultivator
first clears a chunk of good forest standing mostly on a hill slope. Almost all the tree
species except fruit bearing species are cut at a stump height of 2’ to 3’ and then the
branches as well as their lops and tops are burnt after they are dried up. Then
agricultural seeds are sown on this patch of land after a light soil preparation. During
the initial two or three years good crops are harvested at a diminishing rate and then the land is abandoned until the hardy forest species recolonises the abandoned land into a renewed vegetation of inferior quality.

The XII Report of the National Commission on Agriculture states that agricultural marketing is a process which starts with a decision to produce a saleable farm commodity. It involves all the aspects of market structure or system, both functional and institutional, based on technical and economic considerations and including pre and post harvest operation, assembling, grading, storage, transportation and distribution. The fundamental basis of marketing are the three ds i.e., difference, desire and distance (Granier and Delobez, 1979). The function of marketing starts with differences or inequality in areas, such as geo-economic and technological factors, while the desire to sell the produced material and also a desire to purchase the same is necessary; the distance is a governing factor between the two. If the people are to be encouraged to increase agricultural production, it is necessary that ample marketing facilities are provided to them so that agricultural surplus can be unloaded in the markets. Since majority of the people depends on agriculture, improvement in their standard of living depends upon increased agricultural production. This brings into prominence the importance of ample communication facilities (Chand and Puri, 1999). The availability of transport facilities plays a vital role in transfer of goods and services especially agricultural produce, which are fast perishable items and therefore needs to be disposed at the earliest. It helps the farmer to move their perishable agricultural products soon to markets and mandis (Tiwari,
Another important feature of transport network is that it controls the price of the commodities in the market.

Roads play an important role for communication, transportation of goods and services especially in the hilly terrain where other means of transportation is not possible and when it comes to agricultural marketing it becomes very essential that road should be in excellent condition. The district of Mokokchung, though hilly in topography is blessed with a pleasant climatic condition with some scattered fertile river valleys. In the past decades these hilly tracts have been cultivated with a variety of agricultural crops. It could sustain the people throughout the year without depending much on the outside products. The pressure on land due to urbanisation has given rise to various ecological problems like destruction of the forest cover that has resulted in the deterioration of soil quality. It ultimately affects the productivity of the crops. The rivers on the lower plains can sustain the areas throughout the year with some efforts on water management and the monsoon rain that feed the hilly tracts is just enough for the kharif crops of the jhum fields. The existing agri link road of all the villages, made possible by various agencies like that of NREGA, MGNREGA, Department of Agriculture, Horticulture etc., should be maintained and the marketing system also needs to be evaluated for better coordination so that the farmers will get maximum benefits, which will ultimately encourage them for higher production.

The study of rural resource marketing and the role of transport have been prompted by the fact that not much work have been done on this aspect from the district and since majority of the people depends on agricultural activity, it is
important to take up a detailed study so that in the long run this can form as a basis for more development. Though there are a variety of rural resources, the study has focused more on the produce from the forest and agriculture, the distribution of road networks and marketing of those produce at selected locations along the roadside. It has also considered the importance of judicious utilisation and management of the available resources.

1.2 Objectives

The main objectives of the study are:-

1. To study and assess the resources marketed by the local citizens.
2. To propose the promotion of sustainability in the use of resources in rural areas.
3. To study the impact of transport network in development of market centre.
4. To analyse the impediments faced by the rural people in marketing their produce.
5. To study and encourage the local farmers to dominate the markets.

1.3 Hypothesis

1. Less utilisation of resources results in backwardness of a region.
3. Demand of a product in the market determines the quality of the product.
4. In the absence of proper storage system, market and transport network, surplus agricultural production is a waste.
1.4 Data Base and Methodology

The study is being conducted mostly through empirical method and field work, using both Primary and Secondary sources.

1. Primary data-
   (a) Based on collection of information from the field through interviews and use of questionnaires on the spot.
   (b) Field survey of resources utilisation and its marketing system was conducted at three locations.
   (c) Spatial analysis of the study area has been done based on descriptive and analytical methods.

2. Secondary data- Secondary source of information were collected from authentic government publications, official documents, census, reports and books.

3. Statistical methods like those of sampling technique and cartographic representation of data were used to analyse the collected informations.

1.5 Study Area

Mokokchung is one among the 11 districts of Nagaland. It has a total geographical area of 1615 sq. km. The district lies between 26°12’ N to 26°45’ N Latitudes and 94°18’ E to 94°50’ E Longitudes. It is bounded by the State of Assam on the North, Tuensang and Longleng district on the East, Zunheboto on the South, and Wokha district and Assam on the West. Mokokchung Town is the administrative
headquarter situated at a height of about 1325.08 meters above mean sea level. According to 2011 census, it has a total population of 194622 persons out of which rural population constitute 138897 persons accounting to 71.37 per cent of rural character. The density of population is 121 persons / sq.km with a sex ratio of 925 females per 1000 males. The district comprises of 6 distinct ranges i.e., Ongpangkong, Langpangkong, Asetkong, Changkikong, Japukong and Tsurangkong which runs in a parallel pattern. The Ongpangkong range located at the South Eastern part of the district has the highest elevation and extends continuously to the North towards Langpangkong range which lies on the extreme Eastern region. The Asetkong range branches out from this range towards the Western part and joins the Changkikong range that lies on the West running parallel to the Ongpangkong range. Further West there is another parallel hill range having lower elevation comprising of Japukong and Tsurangkong which finally merges with the plains of Assam valley. The district is divided into 9 administrative circles along with the district Headquarter in which there are 108 recognised villages (2011 Census). Fig. 1.1 represents the locational map of the study area i.e., Mokokchung district. The administrative headquarter Mokokchung Town headed by Deputy Commissioner is situated on the extreme Southern part of the district. There are two divisional headquarter headed by Additional Deputy Commissioner (ADC) at Mangkolemba and Tuli. The other administrative circles are at Ongpangkong, Chuchuyimlang, Kubolong, Changtongya, Alongkima, Longchem and Merangmen. The relief is represented mostly by hilly terrain, though small patches of rich fertile valleys are found scattered along the rivers. Road is the only means of transport system that connects almost all the villages of the district. National Highway (NH)-2 passes
through the district connecting with Kohima the State Capital and Amguri (Assam). Another road, State Highway (SH)- 6 (now changed to National Highway-702D) connects the district headquarter with Mariani (Assam) which also acts as a lifeline for the neighbouring districts of Tuensang, Zunheboto and Longleng.

Three locations (marked as study area in Fig. 1.1) have been identified for the purpose of doing research. These areas are situated along the highway where marketing of the resources takes place on a daily basis. The study on the utilisation of available resources and its management will not only help the people of the district but it can boost for the development of the State. The three areas that have been earmarked are Changki Junction along State Highway (SH)- 6 (now changed to National Highway-702D). It is located at Changkikong range and acts as an important Junction as many of the villages from this range commute through this place. The second area selected for the study was Salangtem market in the heart of the Town. It is located at Ongpangkong range and as it is in the district headquarter many of the neighbouring villages comes for marketing to this centre. And the third area selected for the study was Changtongya Town along the National Highway (NH)- 2 located in Langpangkong range. This market also acts as an important market centre for many of the villages that are located in this range. The study will try to give an insight on the various aspects and problems faced by the farmers for marketing and suggest measures for its development.
Fig. 1.1: Location of Study Area
1.6 Statement of the Problem

The district of Mokokchung is endowed with vast natural resources and if harnessed with proper planning, it can boost in the growth of its economy. According to 2011 census the district comprises of 71.37 per cent of rural population that depends mostly on agriculture. The favourable climatic condition coupled with suitable soil would help in the production of large quantity of agricultural produce, but due to lack of good market facilities, the farmers get discouraged as they cannot sell their hard earned labour that goes to waste. The people still depend on the age old practice of shifting cultivation on the hilly tracts which is destroying the rich diversity of flora and fauna, while the fertile valleys found in small tracts along the river remains uncultivated due to poor road connectivity. On the other hand, the market is dominated by products that are brought from outside the State. The present condition of the market is so dependent on the outside products that even a day blockade leads to empty market scene which is threatening the survival of the people. This needs to be addressed with proper planning and management strategies.

1.7 Significance of the study

The significance of the study is that it tried to focus on the availability and distribution of resources from the rural areas. A detailed collection of data on the rural resources available in the district have been attempted and analyse the pattern of utilization and marketing of the produce both natural and cultivated items. The impact of transport networking on the mobilization of resource has been accounted
and the findings of the study tried to highlight the farmers and policy makers, the ground reality of the existing resource condition, the present trend of the dependent market scenario and also the importance of developing a good transport and market networking system, setting up of modern storage facilities and proper channelization of markets to encourage local farmers and entrepreneurs. The study has also tried to suggest measures to utilize the resources at the maximum while taking into consideration the sustainability of the environment and its conservation.

1.8 Review of Literature

To define resource, Zimmerman (1993) may be quoted for his famous definition by saying that Resource “does not refer to a thing or a substance but to a function which a thing or a substance may perform or to an operation in which it may take part, namely the function or operation of attaining a given end such as satisfying a want”.

Khanna and Gupta (1999) defined resources as “means of attaining given ends”. These ends may be satisfaction of individual wants or the attainment of social objectives. Thus anything useful or anything having the attribute of utility may be termed as resource only because they are useful and satisfy some human wants. But resource includes many more things. They includes not only material things like land, forest, coal, machinery etc., but also intangible things like good health, knowledge, social harmony etc., because all these things have the attribute of utility.

It has already been repeatedly asserted that the functionality of a thing or a substance with relation to human wants makes it a resource, but skepticism arises as
to what makes a thing functional to human needs. The answer immediately springs from a particular faculty of man himself i.e., faculty of knowledge (Sadhukhan, 1982).

Belshaw (1969) while defining market states that “markets are sites with social, economic, cultural and other references marks, where there are a number of buyers and sellers, where the price offered and paid by each is affected by the decisions of the others”.

Discussing about marketing, Saxena (1988) states that, the orthodox theory starts from individual self sufficiency to barter, followed by periodic assembly of buyers and sellers and finally establishment of permanent shops and markets as well as the start of daily and long distance trading.

Barker (1983) has defined marketing as the performance of all business activities involved in the flow of goods and services from the point of initial agriculture production until they are in the hands of the ultimate consumer.

According to Husain (2002), the accessibility to the market is a major consideration in the decision making of the farmer. The intensity of agriculture and the production of crops decline as the location of cultivation get away from the marketing centres. This is particularly noticeable when a bulky but low value crop has to be transported to the market. If it takes much time to send the produce, especially at the peak time, to the market when the farmer could have been profitably employed in other activities. The marketing system also influences the decision making of the farmer. In most of the countries the agricultural commodity markets
are controlled by the buyers rather than sellers. The farmers however, can influence the market by storing their products on the farms or in cold storages until prices are remunerative.

In the words of Saxena (1990), market centre as an organism is not a passive mechanical phenomena contributing to a geometric pattern spread out upon the earth’s surface but rather active. Their activity may be seen in the form of commerce or marketing. Marketing is a process or phenomenon of interaction among producers, distributors, buyers and users or in other words, it includes all processes and services a commodity goes through as it travels from producer to the consumer. The main function of marketing is to ensure that goods are not only transported from the areas of production to the areas of consumption, but that they must be transferred into the hands of the consumers.

The fundamental basis of marketing are the three ‘ds’ i.e., differences, desire and distance (Granier and Delobez, 1979). The function of marketing starts with difference or inequality in areas, such differences being mainly due to geo-economic and technological factors. While desire to sell the produced material and also a desire to purchase the same is necessary, the distance is a governing factor between the two.

“The maximum intensity of commercial exchange will take place if the difference is pronounced, the desire is strong and distance short” (Granier and Delobez, 1979).

Periodicity is an essential element of local indigenous market structure of most undeveloped countries as it was of medieval Europe (Hodder 1965).
The marketing manager, who in agriculture is usually the farmer himself, is responsible for the totality of a company’s market offering, covering such factors as the range of products to be offered, prices charged, discounts to be offered, communications media to be employed, and the channels through which the product or service is to be made available.

Periodic markets play a key role in the internal trading process, mediating exchanges between farmers, craft manufacturers, fore strollers and intinerant traders on the other hand (Smith, 1971).

Describing the rural markets in China, Skinner (1974) pointed out two important facts. The first for a mobile firm, the total amount of demand encompassed by the marketing area of any single rural market is insufficient to provide a profit level which enables the entrepreneur to survive....when a group of related markets operates on coordinated periodic schedules, he can arrange to be in each town in the circuit of its market.

Thunen (1826) in his book ‘The Isolated State’ considered the problem of various form of agricultural production in relation to markets.

Prasad (1985) have discussed that unlike in the case of manufacturing products, the entire production of different agricultural commodities does not go to the market. The produce actually marketed depends upon the marketable surplus, immediate need for cash, price trends, availability of storage facilities etc.

Marketing is crux of the whole food and agriculture problems. It would be useless to increase the output of food and be equally futile to set up optimum
standards of nutrition, unless means could be found to move food from the producer to the consumer at a price which is remunerative to the producer and is within the consumer’s ability to pay.

The success of any agricultural development programme rests ultimately on the efficiency of the marketing system. The welfare of the agricultural producer is influenced by the conditions prevalent in the marketing sector.

The call to “produce more” without providing an efficient marketing machinery which could assure a fair return to the producer-seller carried no conviction with the farmer.

In unregulated markets, the innocent farmers are invariably exploited by middlemen by their malpractices such as an important requisite of a good system of agricultural marketing is the supply of accurate information regarding the present and possible future trend of prices in different markets to the producers.

The first and foremost deficiency lies in lack of organization among the Indian farmers. They being the small cultivators scattered all over the country having very little time and knowledge to look to the marketing side of their produce, cannot organise themselves so as to bargain on equal terms on large scale and with a powerful organization behind them.

As the mandis and unregulated markets are not subjected to any statutory control, the farmers have to pay various market charges, long established by custom. The charges include taxes and tolls, commission, brokerage, handling charges, charges for other services.
The essential important function of transport was admirably summarized by the economist Milne and Laight (1965) which states “The transport industries which undertake nothing more than the mere movement of persons from one place to another have constituted one of the most important activities of man in every stages of advanced civilization”.

Transportation facilities also have a direct bearing on the cropping patterns of a region. Better transport linkages are advantageous because of the economies in farm labour and storage costs which they make possible. These savings in turn help to make it economic for farmers to buy fertilizers and better equipments. Better transport also makes it possible for farmers to put their less accessible land to more, productive use. In areas inadequately served by modern means of transportation, the surplus produce is often damage either by adverse weather or by rats, pests and diseases. In the hilly states of North East India (Meghalaya, Mizoram, Nagaland, Manipur, Arunachal Pradesh) costly crops like ginger, pineapple and banana are grown in surplus quantities but poor means of transportation and inadequate road linkages deprive the cultivators of most of the profits.

Symanski and Bromley (1974) have established the relationship between market development and the ecological complex. The four variables of ecology i.e., population, environment, technology and organization provide an invaluable basis for market development.

In a detailed survey of weekly markets in Rajasthan, Saxena (2004) reveals that the determining factor of the morphology of weekly market is the main street or
streets along which the market is held. In the region under study, about 90 per cent markets are held along roads.

The Asnawar market is an example of crossroad pattern with bus-stand as the controlling point.

In all the three markets, bus-stand is the controlling point and shops have been arranged along road as well as along side roads.

Krishi Vigyan Kendras (KVK), Nagaland (2009) in their study on Vision 2020, has opined that despite the growing awareness, farmers are reluctant to cultivate cash crop due to lack of marketing linkages, absence of marketing organization, storage facilities and poor transportation which create negative impact for sale of their products. Some cash crops such as leafy vegetable and cucurbits are sold on the road sides.

According to ATMA (2014), these days vegetables and fruits produced in the district are also sold in the markets although many essential products still continue to be brought in through the neighbouring State of Assam.

Singh and Kanaujia (2015) defined vegetables as important components of Indian agriculture due to their nutritional value, medicinal value, industrial value and export potential. They are known for their short duration and high productivity per unit area, providing a valuable source of income leading to improved livelihood.

Shifting cultivation known as Jhumming is one of the most ancient system of farming believed to have originated in the Neolithic period during 7000 B.C (Borthakur, 1992).
Jhum cultivation is woven into the traditions and culture of the Nagas with major land use under Jhum. Traditionally all the tribes in the State practice slash and burn type of cultivation. This type of cultivation has brought lots of tremendous impact on environment in the recent years (Pereira and Fernandes, 2005).

Shifting cultivation according to Thakur (1997), is a primitive agricultural practice practised at the primitive level of operations under unconducive surroundings for a sustainable agriculture.

Jhum cultivation involves slashing down of trees and bushes over the forest areas, drying and burning, sowing of seeds of host of crops including paddy by using stick, dibbler or by hand before the onset of monsoon. Crops are raised for a few seasons, then the area is abandoned once in 2 or 3 years because of loss of soil fertility and erosion. The farmers called Jhumias, then shift over to other lands and resort to similar practice with cutting and burning down the forest. Leaching, erosion and loss of fertility takes place rapidly and the field per unit of land becomes progressively lower. Land and water system which is the basic life supporting factor and a prime mover of socio-economic development has already fallen into the clutch of the law of diminishing returns with the reduction of productivity vis-a-vis inputs and gross physical degradation of the system (Moursi, 1984; Christanty, 1986).

Husain (2002) has discussed that the history of shifting cultivation is as old as the history of agriculture itself. Shifting cultivation has been described as an economy of which the main characteristics are rotation of fields, use of human labour only, short period of occupancy alternating with long fallow periods.