1.1 Introduction

This research study on “Livelihood pattern of Tribal Communities: A study of Lower Subansiri District Arunachal Pradesh” in a purely traditional rural setup in Lower Subansiri District of Arunachal Pradesh is based on a holistic framework. This fascinating field of enquiry has gained momentum during past three decades as a major redirection towards human welfare issues and livelihood centered development policy initiatives. The Contemporary development paradigm and the related discourse focus on the broader attributes of human wellbeing in the social context.

The diversity and abundance of natural resources contribute to varied socio-ecological, economic, political, and cultural environments. Subsequently this uniqueness determines the means of living of all the world’s societies. Majority of people residing in rural and particularly in tribal areas in the developing world have remained marginalized for quite a considerable period of targeted development pursuits. Nevertheless, the impact of contemporary policies of economic liberalization and market forces do not isolate these areas, thereby making them vulnerable with regard to ways and means of their survival. This situation has posed immense challenges for researchers, planners and policy makers to identify and tackle growing concerns over time and space in order to make appropriate policy interventions.

Post early 1990s period witnessed increased recognition among researchers that rural/tribal communities diversify their livelihood strategies, including on-farm (crop, livestock) and off-farm activities or market and non-market activities, to mitigate risks inherent in unpredictable agro-climatic, socio-political and economic circumstances (Ellis, 1998; 2000, Bryceson, 2002). Consequently, the academic discourse influenced the policy perspective to a greater degree. This contributed in capturing that alleviating poverty and sustainable development aspirations are formulated by way of
recognizing how and why tribal communities pursue diverse livelihoods. Based on sustainable livelihood approaches, a large number of debates and empirical studies aiming at facilitating and evaluating polices were carried out (Ashley and Carney, 1999; Freeman, Ellis and Allison, 2004; Driscoll and Evans, 2005). The debates in this direction absorbed more appropriate policy formulations with a spatial temporal perspective.

In Indian context, agriculture and allied activities support livelihood of nearly 70 per cent of rural population. Manifold analysis, using rational tools illustrate that ‘land’ plays a very significant role in determining the livelihood pattern of the indigenous (tribal) communities, both in economic and social terms. However, livelihoods of rural communities are becoming unsustainable, because their land is gradually not able to support the families’ food requirements and instances of food insecurity looms large in the inaccessible zones such as in the Eastern Himalayas.

Apparently, various research findings further demonstrate that most indigenous communities in developing world e. g. India (North Eastern Context) primarily depend on the health of land for agriculture operations, both settled and shifting cultivation. The prominent agricultural and allied activities are principally rain-fed and devoid of proper infrastructure to support such operations. Inevitably, the land based activities form the foundation for sustainable livelihoods of traditional societies. This is often based on the indigenous traditional knowledge (ITK) and technology, developed in a given ecological, socio-economic and cultural settings (Ramakrishnan, 2000). The external interventions results in upward swing in aspirations aiming at better livelihood akin to developed and developing societies. This induces both negative and positive impact.

The above scenario personifies most of the upland areas of the North Eastern Region of the Indian sub-continent. Constituting eight states viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim the region with total geographical area of 262179 km$^2$
inhabits around 45.49 million people in 2011 (39 million in 2001) belonging to different ethnic and cultural groups. This constitutes nearly 7.98 per cent of total geographical area and 3.98 per cent population of the country. Topographically the region portrays a combination of hills and plains. Widespread variation in altitude coupled with abundance of rainfall has given rise to variations in climatic conditions within the region, which in turn has endowed the region with rich bio-diversity. The richness in bio-diversity of the region is almost matched by its ethnic diversity. The region is a meeting place of large number of races, creeds, cultures and languages and hence represents a cultural mosaic with multiethnic, multilingual and multi-religious community groups in diverse geo-ecological settings. The impingement of the diversity of physical and cultural environment is naturally found in the organization of economic life of the people in the region.

The communities in the region largely demonstrate the following character:

a) People live within certain defined boundaries having geo-ecological homogeneity,

b) Conventional agricultural activities like hunting and gathering, shifting cultivation and collection of minor forest produce, self-employment and wage labor in agriculture and service sector and inbuilt management system of natural resources are the dominant means of survival,

c) Remarkable efforts and achievements in ensuring food production through various revolutionary initiatives but corresponding improvements in absolute livelihoods could not be noticed,

d) The effects of globalization, liberalization, dynamic market forces, exposure to outside world, diversification in consumption behaviors, increase in population attached with declining support
from traditional portfolios is seen as an agent of diversification of livelihood activities,

e) Developmental plans and policies have also worked as an instrument for growing diversity in livelihood systems, and

f) Inadequate institutional coordination, technology integration and infrastructure support.

In view of certain traits demonstrated by tribal communities and ambitions of development policies, making an impassionate enquiry is a pre-requisite to aspire for livelihood sustainability. Further, it is also vital to explore various livelihood options with well-established links to policy initiatives. The studies on livelihood therefore revolve around five prominent queries as to what is done, who does what, when it is done, why it is done and how it is done?

Apropos to this belief, any policy instrument aiming to achieve sustainable development requires a comprehensive evaluation of livelihood portfolios of any society. In perspective of Arunachal Pradesh and more specifically in Lower Subansiri District the documentation on livelihood pattern is quite negligible and scattered, and lacks holistic view.

The natural biological capital of the earth provides goods and services essential to support human livelihoods and aspirations and enables societies to adapt to changing circumstances. In addition, biodiversity maintains the ecological balance necessary for planetary and human survival. The forest wealth in Arunachal Pradesh possesses a phenomenal range of floral and faunal diversity. It also inhabits about 26 major and over 100 sub-tribal communities, which use a wide variety of forest resources for sustenance and livelihood.

Slash & burn or shifting cultivation is the main source of livelihood to majority of indigenous inhabitants. Governments, during contemporary developmental history has attempted to provide alternative means to support
livelihoods of the jhumias (shifting cultivators) and recover the degraded jhum lands. Nevertheless, the results of many of these programs have been far from satisfactory and not bearable to breed environmental justice, sustainability with scientific management and self-reliance. Hence, quest for secured livelihoods continues to dominate developmental pursuits. The inaccessibility and vast spread of rural habitations further compounds the fundamental problems in order to fulfill a host of needs of the growing population.

Ever since adopted in academic discourse and development pursuits, livelihood approach has taken a complex position with regard to its reality in the realm of varied situations. Hence, in holistic framework, it has emerged as the most vital instrument of investigation in orienting and re-directing the policy led interventions in addressing different ecological, social, economic, psychological and political realms of lives of millions of marginalized people across the globe. A large number of contemporary researchers cutting across different specialized fields have contributed widely in the study of livelihoods resulting in varied location specific policy interventions.

The present empirical research tries to make an exploratory study that focusses on integrated framework of livelihoods of tribal communities residing in distinct geo-ecological regions of Lower Subansiri District of Arunachal Pradesh in the Eastern Himalaya with a phenomenological outlook.

1.2 Livelihood : An outcome of Man-nature interaction

It is established that the diversity and abundance of natural resources, resulting in varied socio-ecological, economic, political and cultural environments determines the livelihood pattern of any society. Natural environment, that surrounds people, provides several goods, services and amenities to them, but using the environmental resources for one purpose always reduces its ability to supply them with other services. Majority of people in rural and tribal areas, particularly in the developing world have
remained marginalized, resulting in growing insecurity to the livelihoods. However, it is pertinent to note that, traditionally tribal people have managed their affairs and resources on a sustainable basis (Roy Burman, 1993).

Traditional communities/societies posses substantial body of knowledge, beliefs, and practices built around their everyday life experiences and their surrounding environment. This local knowledge transferred over generations, adapt and add to this body of knowledge in a constant adjustment to the changing socio economic circumstances and environmental conditions. People who live in or near forests have a deep understanding of natural resource management that guides them to generate livelihood. The important ecological functions of the environment provide numerous goods and services that contribute significantly to human well-being at local level. Local perception refers to local people’s attitude and understandings that reflect their habitual way of life as their life experience as well as their shared expectations and aspiration.

Recent environmental agreements and processes including the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification, and the United Nations Forum on Forests, UNICEF Cultural Landscape (Herita Ge Project) globally recognizes the importance of inherent ecological knowledge. It has made significant contributions to the maintenance of many fragile ecosystems of the north-eastern region of India through habitual sustainable resource use practices and culture based respect for nature.

Livelihood of the individuals and groups is a product of natural, social and economic environment. Hence, adequate stock and flow of food and cash to meet basic needs over time and space constitutes the core of defining livelihood. The political environment has also entered into the livelihood thinking as another ingredient having direct and indirect bearing.
This situation has posed a great challenge for researchers, planners, policy makers, development actors and even political players to identify and tackle cause and effects of such deprivation over time and space through appropriate policy interventions, conceptualized and translated in the field.

Post 1990s experiences on the livelihoods research and development, thus assume greater significance for the marginal areas, particularly inhabited by indigenous people also described as tribal areas.

The diversity in ways of living has also become a matter of serious concern leading to adoption of multiple approaches in providing a dignified way of life to all societies. However, in practice, this diversity has existed prior to livelihood becoming a focal point of concern.

Numerous debates and empirical studies constructed around sustainable livelihood approach are carried out with an aim of facilitating and evaluating policies (Ashley and Carney, 1999; Driscoll and Evans, 2005; Freeman, Ellis and Allison, 2004). However, more appropriate policy formulations with spatial temporal perspective were the focus of these debates and studies. This was essentially to ensure achieve livelihood provisions, protection and promotion (Jaspars and Maxwell, 2009).

India has the largest concentration of tribal population in Asia. It is the second in the world in terms of tribal population (Upreti, 2007). The relation between forests and tribals is intimate and an age-old reality. Popularly referred as forest community (Vanyajati) and people of the hills (Girijan), the tribals are known for their close association with forest and hills (Rao, 2001). The first and foremost characteristic of the tribal economy is its close bond between economic life and the natural environment or habitat, which is, in general, the forest (Mehta, 1994). Technology, life and livelihood strategy of a tribal group depends on the nature of habitation, environment and resources (assets/capitals). Tribal population therefore lives in proximity to bio-
diversely prosperous landscape having evolved area specific and novel livelihood strategies based on their traditional ecological knowledge (TEK).

Enormous literature on lives of tribals reveals that these traditional groups, since time immemorial, have maintained a close and unique connection to the land and environment they live in (Anderson, 2003; Barke and O’Hare, 1987; Choudhury, 2009). This offers a complex and compounded picture of livelihood systems. Nevertheless, in recent times the trade-off between the conservation, economic growth and livelihood poses clashing questions on sustainability of the system as whole. The existing knowledge on the magnanimity of livelihoods therefore necessitates wider acceptance that this term (livelihood) also implies capability and capacity to survive (Gregory, 2008) and understanding the livelihood pattern of any society therefore assumes long term and short term benefits to ensure timely adjustments to the globalization and economic liberalization processes of the recent time.

1.3 Livelihoods: From practice to thinking and action

As discussed in the preceding section the simplest meaning of livelihood “means to a living” provides a wider framework for thinking, research and action. The very quest for livelihood is as old as human civilization. The primitive man evolved over time was in close interaction with nature for sustaining the life of the family. It is assumed as a function of location, whereby certain locations possessed resources (physical and human) provide better opportunities to inhabitants than others (Ajala O. A., 2008). Further, it is believed to be an aggregate measure of how people or a given population makes their living within the confines of environmental, social economic and political conditions of the society, within which they live. Livelihoods vary across regions. Even within a region, there exist certain degree of variations depending on the locational advantages and geographical inertia. People in the marginalized lands are poor, yet they make their living.
The man nature interaction was the focal point in determining various means adopted by man in gaining some assets for sustenance. This continued interaction evolved over civilization and revolved around the activities that man chose to earn by ways and means for continuation with evolution over time and space. Subsequently, the growing ingenuity of man brought about diversity in ways and means of survival. In current parlance, livelihood has become a focal point of discourse primarily in development pursuits, thus resulting encompassing the whole of policy framework.

Based on social and natural evidences used by many revolutionary historians’ during different periods viz. stone age (till 8000 BC) in the pre-historic period discovered wide-ranging forms of quest for livelihood. The primitive man moved in groups of few families and lived mainly on hunting and gathering. The geographical analysis of historical evidences on livelihoods of people all throughout the history thus confirms that livelihood strategy and approaches are characterized by different actions performed by each individual.

As part of their livelihoods, primitive people used to migrate in groups along with the family members and observed division of labor. Male used to perform different tasks in order to earn food for livelihood like fishing, hunting and collective fruits and berries, while female used to take care of their food, children and residential place (www.Indiaonline.in/about/profile/history/India-history/pre-historicage/index.html). Different epoch in the history of human civilization demonstrate how people interacted with nature to sustain themselves and evolved to present forms of diversified livelihoods.

Hence, revisiting the key milestones in the history helps in learning important lessons. Through the passage of time, livelihoods among primitive people witnessed transformation from that of hunters to farmers, which brought certain changes in man’s way of life. This included exchange of goods for crops or vice versa thereby constituting a better alternative to
hunting. Thus, it came to a point that these farmers convened at some trading places where they could trade by way of barter. Advancement into earliest known civilization were spurred by the spread of agricultural practices, particularly in Mesopotamia (used to lie between Tigris and Euphrates in the middle east once fertile and capable of producing numerous crops before it became vast tract of arid desert) (Cantoria, 2011).

Even before the popular works of Robert Chambers and Conway in 1992, “there is a rich and important history that goes back to another 50 years or more years where a cross-disciplinary livelihood perspective has profoundly influenced rural development thinking and practices [Scoons, 2009]. Nevertheless, such perspectives did not come to dominate development thinking for quite a long time.

Ever since the age-old livelihood practices became a part of prominent thinking initiated by Robert Chambers in the mid-1980s it was further developed by Chambers, Conway and others in the early 1990s. Further, a number of development agencies adopted this for ensuring livelihood provisions, protection and promotion (Jaspars & Maxwell, 2009) through multifaceted interventions has increasing become a concern in the developing world. This assumes greater relevance in marginal areas categorized as backward and under-developed.

Thereafter, many approaches were pursued such as village studies, household economics and gender analyses, farming systems research, agro-ecosystem analysis, rapid and participatory appraisal, studies of socio-environmental change, political ecology, sustainability science and resilience studies (and many other strands and variants). These have offered diverse insights into the way complex, rural livelihoods intersect with political, economic and environmental processes from a wide range of disciplinary perspectives, drawing from both the natural and social sciences (Scoones, 1998, 2003, 2009).
1.4 Livelihood and Tribal Development

Livelihood perspectives have been central to rural development thinking and practice for quite some time in the past. The problem of poverty, particularly in rural areas with maximum dependence on land based operations is ultimately rooted in the weakness or failure of rural livelihood systems. Therefore, any genuine effort to alleviate poverty must eventually focus on ways to improve and sustain rural livelihoods. All approaches adopted at micro and macro level by various agencies before and after the popular work of Chambers and Convey on livelihood revolves around directly, and indirectly influencing the lives of millions of people inhabiting divers geo-ecological, socio-cultural and political settings.

The basic objective of development must necessarily be to provide the masses with adequate opportunities to lead a good life, which can be defined in many ways (Third five year plan, 1961-66, www.planning commission.nic.in). Each major culture and civilization has certain distinctive features, rooted in the past, which bears the imprints of that culture.

Tribal development as a subject has been an important area of autopsy in the social sciences. In recent years, this subject has acquired immense importance both at the national and international level. Active support and hectic campaign by a number of international agencies championing the cause of the 'indigenous people' has made it a burning issue all over the world. Further, United Nations’ declaration of 1993 as the International Year for World's Indigenous People provides ample evidences on the growing concern of the world's highest body for the development of the indigenous people all over the world.

India acceded referring to tribals as indigenous people in various reports and publications of the Government of India. The social and economic conditions of the tribals have been a concern of Indian political and social movement right from the pre-independence periods. The mainstream political
and social movements influenced by the Gandhian approach, emphasized the imperative need to transform the tribal areas. Immediately after independence, the basic principles for the development of tribals were clearly enunciated by Pandit Jawaharlal Nehru in the form of five fundamental principles (Panchsheel) for tribal development. These are as follows:

1. People should develop along the line of their own genius and we should avoid imposing anything on them. We should try to encourage in every way their own traditional arts and culture.

2. Tribal rights to land and forest should be respected.

3. We should try to train and build up a team of their own people to do the work of administration and development. Some technical personnel from outside will no doubt, be needed, especially in the beginning. But we should avoid introducing too many outsiders into tribal territory.

4. We should not over administer these areas or overwhelm them with a multiplicity of schemes. We should rather work through, and not in rivalry to, their own social and cultural institutions.

5. We should judge results, not by statistics or the amount of money spent, but by the quality of human character that is evolved.

These five principles were born out of the idea that the upliftment of tribal people had to take place through a slow process of their modernization even while their culture had to be preserved. It also observed that while the cultural and political rights of tribal people were given due importance, their economic rights over land, natural resources and basic services were ignored. Beginning with the special multi-purpose Tribal Blocks of 1956, the measures taken for development of tribals are multifarious. The process of tribal development administration in the country witnessed different focused programme and policies. Important initiatives are creation of separate Tribal Development Blocks in the second five year plan (1956-61), tribal sub-plan
(TSP) within the state plan in the fifth five year plan (1974-79) and formation of large scale multipurpose cooperative societies (LAMPS), Tribal development agencies, Integrated Tribal Area Development Projects (ITDP), Modified Area Development Approach, micro project for Primitive Tribal Groups (PTGs). A variety of approaches and strategies like top-down approach, regional planning, target group approach, integrated development, participatory development, joint forest management, watershed management and poverty alleviation programs have formed part of the development approach having significance to one or varied assets of livelihood.

Review of development planning during post-independence India reveals that Government of India and governments of various states have taken many steps for development of tribals. A large numbers of policies and programs with evolving mechanism are implemented for providing better livelihoods encompassing all needs of human in present context. The development policy for the tribals has witnessed continuous strategy to obtain sustainability the social scientists have laid emphasis on the important cultural fabric of the tribal world to accelerate this process.

While these policies and programs have brought about perceptible improvements in the socio-economic status of the societies, particularly scheduled tribes, a lot more is yet to be required with concerted efforts and focus on issues crucial to improve their status.

The governments, more particularly in developing countries, over decades of experience in development arena, have also re-casted, re-oriented their development policies with direct implications for livelihood pattern of rural communities. The bottom-up participatory model of development at current level propagates linking the development policies with the way people conduct their activities in order to live.
Changing market forces has increased the urge of rural communities for adopting alternative sources of income. Consequently, the current state of diversity in rural livelihood has now become inevitable.

1.5 North Eastern Context

The North East is a true frontier region of the country with greater geopolitical significance. It has over 2000 km of border with Bhutan, China, Myanmar and Bangladesh and is connected to the rest of India by a narrow 20 km wide corridor often called ‘Chicken Neck’ (Khanka, 2007). One of the most ethically and linguistically diverse regions in Asia, each state has its distinct cultures and traditions (http://ignca.nic.in).

Since time immemorial, the region has been the meeting point of many communities, faiths and cultures. A place renowned for its thrilling beauty and mystifying diversity, region inhabits above 166 separate tribes (ibid) speaking a wide range of languages. Some groups have migrated over the centuries from places as far as South East Asia; they retain their cultural traditions and values but are beginning to adapt to contemporary lifestyles. Its jungles are dense, its rivers powerful and rain and thunderstorms sweep across the hills, valleys and plains during the annual monsoons.

The flourishing geo-politically significant landscape with the range of communities and geographical and ecological diversity (dynamic, complex and inter-connected systems) makes the entire region quite different from rest of the subcontinent. Topographically the region is a blend of hills and plains. While Arunachal Pradesh, Meghalaya, Mizoram, Nagaland and Sikkim are almost entirely hilly, about four fifths of Assam is plain. Manipur and Tripura have both plain areas and hilly tracts. The hills account for about 70 per cent area and contain about 30 per cent of population of the region and the plains constituting the remaining 30 per cent of area hold about 70 per cent of its population. Widespread variation in altitude coupled with plenty of
rainfall result disparities in climatic conditions within the region, which in turn has endowed the region with rich bio-ethnic diversity.

The impingement of the diversity in physical and cultural environment is naturally found in the organization of economic life of the people of the region. Agriculture is the prime source of livelihood for the majority (85 per cent) of rural population in this region. Low input-low output, technologically lagged mixed farming system dominated by smallholders (Kumar & Ramakrishnan, 1990) is the major characteristics of the agriculture.

Evidently, tribal societies of eastern Himalaya are highly traditional and have characteristic manifestation of man’s cultural interactions with nature representing a cultural mosaic with multiethnic, multilingual and multi-religious community groups in diverse geo-ecological settings as mentioned earlier.

1.6 Arunachal Pradesh

The state of Arunachal Pradesh occupying 83,743 Km² of geographical area is located in the extreme North East corner of India. In the global grid, the state is located between 26°0 28’ north and 29°0 30’ north latitude and 91°034’ east and 97°030’ east longitudes (http:// arunachalpradesh.nic.in/). In the north, the state shares long border by China, to the north and northeast by Myanmar to the west by Bhutan and to the south by the vast plains of the Brahmaputra valley of Assam. The state constitutes around 31.94 per cent of the total geographical area and 3.04 per cent (2011) of regional population.

The area now called Arunachal Pradesh was constitutionally part of Assam till 20th of January 1972 and it was known by different names at different point of time such as Excluded areas, North East Frontier Tract and North East Frontier Agency. In 1972, it received the status of Union Territory and on 20th of February 1987, it emerged as the 24th state of the union of India.
Being part of the eastern Himalaya, the terrain of the state is extremely hilly. The plain land that is available in patches bordering the state of Assam constitutes a small fraction. The habitations are small and dispersed over large hilly terrain. This pose a greater challenge for development oriented initiatives.

Land in the state primarily belongs to the people and the customary laws govern it. These laws recognize land under private, lineage/clan and community ownership. The rights for each category such as land use, possession, inheritance and sale/purchase rights are defined. The governing rule amongst the tribes however has variation. Intra-tribe, inter-tribe, intra-village, inter-village variations are also discernible. There is however no verifiable written record. Most of the territory has remained un-surveyed and therefore no cadastral maps are available.

As against the legal system that is in vogue under the provision of the constitution of India, the land management system is an important area of any enquiry. It assumes important because not only there is a uniqueness to learn but also, over the period, many changes might have been witnessed in the course of development. Consequently, serious issues emerged inviting need for appropriate measure for better management of land.

1.7 Statement of the Problem

Present research study seeks to provide a comprehensive inquiry and evaluation of conditions that determine the livelihood pattern of the tribal communities inhabiting in Lower Subansiri District of Arunachal Pradesh.

Development approach that stems from the concept of sustainable livelihood recognizes that rural people have in-built livelihood system, many of which have functioned smoothly for centuries, undergoing functional changes in response to diverse, complex and multidimensional physical and social environments and the histories that surround them – and to which they
themselves contribute in no small way. Tribal societies living in diverse bio-rich regions such as Arunachal Pradesh cannot be seen in isolation to the growing effects of globalization. The richness of nature’s bounties though assure them continuation of traditional means of sustenance to a greater degree but the growing development aspirations mandate alternative and better means for sustenance. Since access to market is crucial to the development process and to the issues of income and livelihoods equity in the distribution of income and resources, between genders and regions, between present and future are issues that need to be constantly monitored and addressed.

Taking a clue from the major traits of the tribal communities mentioned in the preceding section vis-à-vis past trends of development it is increasingly becoming important to understand the lives of people so that appropriate policy interventions are incorporated to ensure sustainability to livelihood patterns of the target communities. Since, there is near absence of documentation of livelihood patterns of the tribal communities it is necessary to attempt a holistic approach. Further, growing population coupled with increasing aspirations and needs, people are more inclined towards adopting new ways and means of survival as the traditional means are slowly and steadily becoming un-economic and un-affordable. Further, the growing need for better development necessitates them to look for alternatives.

The rural livelihood approaches places people at the center of development and programmes based on this approach help target people build their assets and develop their skills so that they are enabled to access and acquire new opportunities for enhancing the outreach of their activities to support their lives. The development policy right from the inception of planned phase of development since independence has tried to address these issues but outcomes from these programmes have not matched the outlays. There have been greater challenges in ensuring sustainable livelihoods through various post-independence popular initiatives, which often become unsustainable once the investments are withdrawn. Besides, other operational
reasons the wide gap in expectations and achievement is primarily due to poor attention paid to analyzing the situational parameters of livelihoods in any given situation.

1.8 Significance of research

Any policy initiative aiming to achieve human centered sustainable development necessitates a comprehensive evaluation of livelihood portfolios of any society. This becomes quite significant if viewed in context of diversity in rural livelihoods. In present perspective of Arunachal Pradesh and more specifically the Lower Subansiri District, the documentation on livelihood pattern is insignificant, unorganized and scattered, which does not provide adequate support for appropriate development paradigm. Therefore, such studies with a focus on the traditional societies become more significant in order to support sustainable development.

The natural and biological capital of the territory in question provides goods and services essential to support human livelihoods and aspirations that enable societies to adapt to changing needs and circumstances. In addition, biodiversity maintains the ecological balance necessary for planetary and human survival. The forests, raw materials over ground and underground, vast water resources, cultural repository knowledge of intrinsic value of Arunachal Pradesh possess a phenomenal range of biological diversity and sustain tribal population through a combination of livelihood portfolios. This dimension with human welfare perspective has remained an unexplored area and therefore learning about the livelihood support system makes it an imperative investigation.

The backbone of rural economy in the state is agriculture and therefore land ultimately becomes an important natural asset having considerable impact and bearing on the livelihoods of the people.
A bird’s eye view of the preceding review evidently reveals a gap in the understanding of livelihoods in the state of Arunachal Pradesh with special reference to Lower Subansiri District. This has also affected in haphazard policy interventions, isolated from the true state of livelihoods. Thus the current research proposes to study the livelihood pattern of tribal communities in the District is an attempt to comprehend the difficulties encountered in studying such a vital dimension of the society and also to view anticipated policy perspective.

This research study therefore, besides adding to the existing literature on the livelihood issues of the less familiar territory of Lower Subansiri District, provides a scope for re-structuring, deconstructing and re-constructing of the concept of livelihood. It also provides a comprehensive and balanced view, keeping in view the literature, recent literature and livelihood approach in development studies.

The multidisciplinary approach adopted attempts to suggest various ways in which a researcher may address the question of what should be, along with the traditional concern with what is.

The complex territorial symbiosis and spatial inequality in a traditional rural setup with three distinct cultural groups provides such a situation for a comparative as well as competitive analysis of livelihood in a comprehensive manner. The outcome of the study may indicate validity or otherwise of the methodology designed and thus leaves room for further methodological improvements and sharpening of indicators in future.

1.9 Objectives

Considering the context of livelihoods concerns, dominant and distinctive geo-ecological conditions, available of scattered and insignificant documentation, the broad objectives of the current research are as follows:
1. To elicit geo-ecological conditions prevalent in the district and sample habitations representing different social groups from the perspective of studying livelihood pattern.

2. To document community profile in the district with regard to different “assets” or “capitals” also known as resources.

3. To document the livelihood pattern of the major communities (social groups) inhabiting in Lower Subansiri District in its holistic frame.

4. To identify major concerns for livelihood promotion in the present socio-ecological context with bearing on policy perspective.

1.10 Choice of Study Area

This study is carried out in the district of Lower Subansiri in Arunachal Pradesh. The district lies approximately between 26°55’ to 27°15’ north latitudes and 93°30’ to 94°21’ east longitudes (Figure 1.1) (http://lowersubansiri.nic.in/). The district with total geographical area of 2294 km² is ranked 13th with 3.57 per cent of total area of the state. The name of the district is derived from the Subansiri River, which is a major left bank tributary of the Brahmaputra. The mountainous terrain principally occupied by hill ranges and intermountain flat valleys exhibit altitudinal variations ranging from about 500 to above 2000 meters above mean sea level.

The choice of the Lower Subansiri District for the purpose of the current research work arises due to the following considerations.

a) District demonstrates significant level of geo-ecological diversity owing to its location in proximately the central part of the eastern Himalaya. It represent three distinct and prominent geo-physical regions viz. very gentle sloppy valley terrain predominant in Zero I C. D. Block, gentle hilly terrain with rolling topography in Zero II C. D. Block and steep hilly terrain in the Taman Raga C. D. Block.

b) Diverse geo-physical conditions results in three predominant agro-climatic conditions viz. sub-tropical (51.29 per cent) prominently in Zero
II block, tropical (25.62 per cent) in Taman-Raga block and temperate (23.08 per cent) in Zero I block respectively. These conditions consequently results in diversity over the main livelihood resources.

Figure I.1: Location Map of Lower Subansiri District, Arunachal Pradesh
c) District portrays three distinctive zones of population concentration ranging from highest population density of 106 in Ziro I followed by low (17) in Ziro II and least (08) in Tamen Raga C. D. Block.

d) About 81 per cent of land is covered with evergreen /semi evergreen, forest plantation, scrubs, grass and grazing land. This demonstrates good biotic wealth as a critical source for livelihood support to local people. However, around 17 per cent land area is identified as wastelands constituting open and dense scrub, current and shifting cultivation, which are primary close to habitation areas posing major concerns for the livelihoods of the people.

e) Agriculture is the main stay of people inhabiting in the district. There are however contrasting variations. People in Ziro I Block principally practice intensive form of settled cultivation with best land management system. On the other hand majority of tribals in Ziro II C. D. Block practice both settled and shifting cultivation. In contrast, majority of people in Tamen Raga C. D. Block practice shifting cultivation as the main livelihood strategy.

f) There are contrasting variations across three prominent regions with regard to the status of socio-economic infrastructure determining level of development.

g) Further, three distinct tribal communities have embedded their traditional occupations as one of the complimentary source of livelihood, developing mode of living generically linked to the ecological conditions, which provide them with unique blend of resource base such as land, water and forest and ecological services and opportunities which favored their survival with marginal adaptation.

h) District has been subject to frequent administrative re-organization thereby influencing the development priorities.
Further as presented in Table 1.1 the basic indicators such as habitation, household and population density are further considered as preliminary basis for detailed enquiry in order to choose one habitation each from all the three-community development Blocks.

Table 1.1: Statement showing Habitation, Household and Population Density in Lower Subansiri District

<table>
<thead>
<tr>
<th>Block/District/State</th>
<th>Area* (Km²)</th>
<th>Inhabited Habitations</th>
<th>No. of Households</th>
<th>Population Total</th>
<th>Density</th>
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<td>Ziro I</td>
<td>232.98</td>
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<td>0.22</td>
<td>5606</td>
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<td>3801</td>
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</tr>
</tbody>
</table>

Source: Derived from Census of India, 2001
Note: *: As per remote sensing data estimates of Arunachal Pradesh Remote Sensing Application Centre, Itanagar, Arunachal Pradesh.

1.11 Limitation and Scope

The investigation of livelihood pattern in this research study was carried out in the district of Lower Subansiri in Arunachal Pradesh considering the diverse geo-ecological set up and cultural plurality of the region. Due to tough terrain conditions most of the territory has remained un-explored.

Following limitations in current work were encountered:

1. People generally remain busy throughout the year. Therefore, seeking information from the responsible members of the households was one obstacle. Hence, frequent visits were required to collect information.

2. The absence of land records is one of the major obstacles in obtaining factual information on land ownership pattern. For this purpose only oral information were collected to arrive at an average ownership pattern of different natural assets.

3. Communities have shown tendency not to share information related to income, expenditure, savings, ownership of assets, livestock and
information on the benefits from the government schemes. Therefore the findings are only based on generalised information.

4. Problem of language has also posed some difficulties for smooth communication with the elderly and key informants. Use of local interpreters during interactions and focused group discussions also had limitations in complimenting the findings revealed through the data.

5. Illiteracy amongst significant proportion of respondent household head also constrained obtaining information on many aspects.

6. Respondent female household head were also hesitant in providing information.

Some care was taken in respect of problems faced due to reluctance of the respondents’ household heads but it consumed more time in seeking information.

Despite inherent limitations, the study offers a great scope for future as follows:

1. Besides adding to the existing literature the study throws light on the distinct geo-ecological zones of the region - a less familiar geographical territory with regard to diverse livelihood pattern.

2. Provide ample scope for restructuring of similar works around the theme of welfare providing a comprehensive and balanced view keeping up with recent literature on different indicators.

3. The attempted holistic approach enables suggesting ways in which the researchers may address different questions related to the livelihood pattern with bearing on futuristic policy perspective.

4. The complex territorial symbiosis, spatial variation and inequality in a traditional rural setup provide a comparative as well as competitive analysis of livelihood pattern of the distinct cultural
groups in a comprehensive manner adopting a standard methodology.

5. The outcome of the study may however indicate validity or otherwise of the methodology designed and thus leaving a room for further methodological improvements, refinement and sharpening in future with implications for future development.

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