Numerous studies have been undertaken on the various aspects of tribal life all over the world. Most of these studies have focused on such matters associated with tribal life as their socio-economic conditions, culture, religions, beliefs, policies and administrative system, family relationships, health, and the impact of modern education (Skaria, 1999). Although the relevance of the impact of tribal life styles on the environment is a topic that fascinates the modern development administrators and environmentalists (Sahlins, 1995), there has been very little inquiry in this direction in the context of tribals in Idukki district. An examination of the available literature on tribal studies is important in identifying the various areas of thrust and the deficiencies in current research on tribals and tribal life styles.

2.1 Tribal studies at the global level

The emergence of the concept of ‘Tribe’ across the globe in relation to the economic interests of the dominating communities forms an important area of research (Neefjes, 2000; Sundar, 1997). The tribal groups have had long experience in dealing with colonization, and with strategies or tactics enabling them to co-exist within a larger scheme. We can search among tribes and tribal groups for ideas that may serve as correctives to ever present monopoly of power or corruption, so endemic in modern society (Hames, 1991). As one example, local tribal people do not need to be warned about abuse to their own backyards, indeed they have frequently begged the powers that be to honour their local environments, traditions, and ways of life (Stearman, 1992). They know in their local situations that their own future, and the futures of their children and grandchildren, depend upon a clean and secure environment, whereas corporations and nation states divide and conquer, pillage and rape, and destroy in the name of progress and in the act of profit (Mander, 1991).
The International Labour Office (ILO) under its international programme on the elimination of child labour (IPEC) prepared a working paper on Child labour and Education challenges among indigenous and tribal children in June 2003 (Larsen, 2003). It has analyzed the link between child labour and the education challenges in vulnerable tribal communities across Asia and Africa, and pointed out that the importance of traditional livelihoods as an indigenous education strategy cannot and should not be neglected. Literacy among indigenous people involve being proficient in their own language, being able to read and navigate in local environments and being able to communicate with and rewrite the surrounding landscapes to serve their own well being and future (Posey, 2007).

Grossman (2010) has given clear distinction between tribes and ethnic groups. According to him ethnic group identity is based largely on language such as Pashtun, Kurdish, Somali, and Tajik and so on. Many ethnic groups also assert territorial nationhood, whether or not they have their own independent state. Tribal group identity is based on smaller and older regional clans and dialects – such as Zubaydi and Jibbur (Iraq), Durrani and Ghilzai (Afghanistan), wazir and Mehsud (Pakistan), Wahidi and Zaydi (Yemen), and Darod and Hawiye (Somalia). He holds that tribes can be viewed as the building blocks for ethnic nations, but in many countries the cement has never really dried. Even in Europe, different local dialect regions were only recently absorbed into modern state (Segal, 2005; Ranger, 1983). Tribal regions in the Middle East and Central Asia function as a layer below ethnic and religious territories, which in turn function as a layer below modern states and their 19th century colonial boundaries. Contemporary armed conflicts in the region can be best understood not as a struggle between political ideologies, but between these different layers of collective identity (Holding, 2001). Tribal identities and boundaries are not to be considered as fixed in the past, and that they can be fluid and dynamic. Western society tends to portray tribes as primitive, backward people, and views “tribalism” as merely ignorant villagers brutally acting in their own self-interest and colonial authorities in the past exploited the conflicting ethnic identities to carry forward their tactics of divide and conquer (Grossman, 2010).
The role of local communities in conservation of nature and the biodiversity have been laid out by Brechin et al., (2003), with the argument that nature conservation being a social and political process by definition, the questions of human organization are of prime importance. In this regard, six key elements of the social and political processes that have been analyzed for their role in conservation are: human dignity, legitimacy, governance, accountability and learning and non-local forces. The development options of resources-dependent rural communities as a means of increasing nature protection have also been evaluated on the basis of people-oriented conservation strategies such as Integrated Conservation and Development Project (ICDP), Community Based Natural Resource Management (CBNRM), co-management, and community managed or indigenous resources (Scoones, 1999).

While conservationists act upon moral arguments for biodiversity protection, they typically omit explicit discussion of such guidance for conservation as a social and political process. Conservation organizations have taken up interventions in the name of nature protection that have had significant negative social and cultural impacts. West (1991) and Ghimire (1997) have elaborately discussed the social and political process that should form a part of conservation efforts to ensure social justice.

A Framework for evaluating the effectiveness of collaborative capacity building for management of forest ecosystems have been drawn up by Cheng and Sturtevant (2011). A set of six arenas of collaborative action had been identified and within each area, the capacities were expressed through the three levels of social agency consisting of the individuals, the collaborative group and the participating external organizations. The six areas selected are (1) Organizing, (2) Learning, (3) deciding, (4) acting, (5) evaluating, and (6) legitimizing. The framework had been of importance since it was possible to analyze and evaluate the capacities already possessed by the groups and to identify the short fall. This framework also has potential for furthering research activities on participatory management models for forests and other natural resources (Ostron, 1990). The functional context in which the natural resources are applied need to be evaluated in carrying out effective research in community based collaborative management. Distinguishing and categorizing collaborative capacities is essential for effective outcomes. Such a framework is found to be highly useful for framing policies for grass-root action for agencies, such as non-governmental...
organizations engaged in collaborative efforts (Kaspersons, 2001). The socio-ecological resistance of communities and their adaptive capacities can be discerned from the evolution of collaborative capacity.

A traditional land use system is outcome of long term social learning process. The land use system in such a perspective is the result of coevolution between society and nature. The ethical principles corresponding to different periods in history are embodied in the evolution of every society. Rist and Burgoa (2003) have analyzed the role of social learning process in the emergence and development of land use systems in a typical Andean traditional community. They studied the main factors that regulate the social learning process which have resulted in the sustainable land use system. The study was carried out among the Majasaya Mujilli ayllu which is a minifederation of sixteen indigenous Aymara Communities living in the Bolivian Andes maintaining a complex system of collectively synchronized livelihood strategies related to agriculture, live stock, food processing handicrafts, off-farm activities, education and social network. The role of social institutions originating in different historical periods and the resultant co-evolutionary process linking society and nature has been analyzed in the study. The traditional land use system is found to be the pillar of social organization and management of natural resources (Thompson, 1990). The land in the hands of the community is managed as a common property resource and separated in four sectors. Each sector is divided into three cultivable areas, where a three year cycle of crop rotation is employed. About eighty percent of the land is allowed to remain fallow for nine to twelve years, which helps maintain soil fertility. In this study the co-evolutionary processes show that the nature indicates the health of the people while the society itself mirrors the robustness of their living environment (Redcliff, 1993).

At the national and international levels, concerted efforts are on to integrate indigenous knowledge with developmental approaches in order to chalk out more efficient methods for conservation of natural resources and the attainment of sustainable development. Rist and Guebas (2006) have set the scene to explore how this integration of ethno sciences and modern scientific approaches is possible through a dialogue between ontologies and the roles which ethnic knowledge systems
could play in the process. They have related the role of ethno sciences in the context of sustainable development and analysed the implications of integrating indigenous knowledge with western science. Based on case studies conducted in various countries such as Kenya, India, Sri Lanka, Ecuador, Guatemala, Ethiopia, Bolivia, Nepal, Niger, Philippines, Senegal, South Africa and Tanzania, they have explored the contributions of ethno sciences to such an ‘inter ontological’ dialogue.

Climate change now considered by many to be the most complex and serious environmental issue that human societies have ever faced, is influencing the climate system, contributing to increase in global average air and ocean temperatures, the widespread melting of snow and ice, and rising average global sea levels (IPCC, 2007). Some argue that climate change is a cultural phenomenon that is reshaping understandings of humanity’s place on earth (Hulme, 2009). Al Gore’s (2006) famous statement that “the truth about the climate crisis is an inconvenient one that means we are going to have to change the way we live our lives”, expresses the human security perspectives on climate, raising issues of equity, ethics and environmental justice, as well as our capacity to respond to what is increasingly considered to be the greatest societal challenge for humankind; has been discussed by Brien (2010). The key question whether science can save the earth from climate change led to the conclusion that an integration of natural and social sciences was essential to respond effectively to the complexities of global environmental change. Bizikova (2010) assessed the linkages between climate change responses and sustainable development in the context of attaining ecologic, economic and social objectives which define sustainable development. The assessment of probable impact of climate change on the different classes of individuals, communities and nations made by Clair (2010) points out that those that have the least capacity to cope with the consequences will be the ones that are hit hardest. Poor countries, poor people and marginalized and vulnerable individuals and groups in all societies including those living in advanced economies in the west will have to bear the severe consequences. Davis (2009) argued that the most efficient way to promote sustainable adaptation to unavoidable climate change is the immediate eradication of severe poverty, the building of solid welfare systems and social protection, and the minimization of inequalities which imposes the responsibilities of protecting people from poverty and from the negative impacts of
climate change in vulnerable livelihood systems. This has further been discussed as a fall back mechanism during periods when food entitlements are disrupted and the strategies as outcomes of fundamental and irreversible changes in local livelihood systems are analysed. This approach accepted the legitimacy of putting indigenous strategies on the food security and famine mitigation agenda and justified the hard choices to be made between operational feasibility and confronting the complexity of indigenous responses (Blaikie, 1994).

The consequences of climate change on human well being can be analysed only through evaluation of the manner in which society is likely to respond through the development of coping strategies and measures which promote recovery and, in the long term, through practical techniques for adaptation (Kelly et al., 2009). It is also argued that any analysis of vulnerability must consider the architecture of entitlements, the social, economic and institutional factors that influence levels of vulnerability within a community or nation and promote or constrain options for adaptation. Sustainable response to extreme events of climate change is necessary to tackle underlying causes of vulnerability such as maldistribution of resources. Insecure land tenure regimes and the resulting perceived insecurity has been the major causes of large scale flood impacts and the mortality on the low lying delta areas of the Ganges- Brahmaputra- Meghna delta (Blaikie et al., 1994; Brammer, 1993 and Wisner, 1978). The approach of modern man to the natural environment has always been one of dominance and control through technology. But the problems are now acknowledged to threaten the global environmental and are less amenable to technological solutions, the addition to which is largely responsible for the current crisis. Boyden (1987) and Handmer (2009) hold the view that intergenerational equity is needed to reduce vulnerability and that increasing the load on the biosphere through resource-intensive development is not sustainable and that equity goals can be achieved only through reduction in resource consumption and minimizing waste.

Ethno ecology as a field of study within anthropology, has developed since the 1950s as an enquiry into the realms of traditional environmental knowledge embedded in now extinct or threatened cultures; not only in order to retrieve that essential knowledge in a time characterized by ecological crisis, but also in order to emphasize
the importance of cultural survival for those indigenous communities threatened by
the penetration of capitalism (Foster, 2000). Foster observed that Marxian theory
valued the organic unity of a community of human beings tied to their land by their
own labour with which they produced their livelihood and so doing reproduced
their community. He further noted that subsistence is understood as the long term
relationship between community and land base. This knowledge of basic subsistence
relations is also, it is argued an invaluable heritage of ecological understanding, not
based on severance of human beings from nature.

Bukharin (2000) has indicated that the ultimate basis of materialism was to be found
in ecology and that the earth’s biosphere is full of infinitely varied life, from the
smallest microorganisms in water, on land and in air to the human beings who share
in the rhythm of nature and its cycles. Conservation of nature and social justice should
go hand in hand. Protection of biodiversity can become effective if there is the right
political will to help rural people become effective partners in conservation efforts
and at the sometime they be provided with equitable benefits of conservation.
Vilshusen et al. (2003) have discussed on such matters as the dilemmas of exclusion
and conservation. Such intricate topics as bio-prospective, community level conflicts
in conservation, conservation organization, private conservation areas, deforestation,
ecotourism etc. have also been dealt in detail.

Environmental preservation and the developmental activities in rural and tribal areas
are directly linked to each other. Economic and development issues and preservation
of environment have been analyzed on the basis of experiences at the grass root level
of rural communities have been evaluated by Thomas (1996) who well focussed the
relationship between environmental resources and the local wisdom in decision
making with regards to economic and developmental activities. A descriptive
ethnographic study on the diversity and potential of economic interests in American
extractive industries has been undertaken by him. The argument that local economic
agendas are framed by local people on the basis of their commitment to local
environmental realities is also made. He positions local environmental facts at the
focus of local economic base and argues that local people consider the protection and
preservation of their natural environment to be essential for development.
Freire (1968) has framed a theoretical base for using education as a tool for social change. The ideas put forwarded in this work has helped to empower the impoverished and illiterate people throughout the world. In many countries of the world where the creation of a permanent underclass among the minorities and the underprivileged was being accepted as a norm, this book has helped to bring forth remarkable transformation. The education in tribal areas need remodelling based on the fundamental principles of education formulated by him. According to him the powerless in society can be frightened for freedom and freedom is acquired by conquest and not by gift. It must be pursued constantly, and responsibly. Freedom is not an ideal located outside of man, nor is it an idea which becomes myths. It is rather the indispensable condition for the quest for human completion. Freedom for the oppressed can come only through informed action and the use of cooperation, unity, organization as well as cultural synthesis.

Thapper (2014) holds the view that the attitude towards the so called ‘tribal societies’ require rethinking if the situation is not to be potentially explosive and as for the scheduled tribes, little has been done administratively to draw them into a shared history, or to understand what their pattern of living is about or to meaningfully improve their quality of life.

### 2.2 Tribal studies at national and regional levels

The forest policies of the pre-independence times were not favourable to welfare of the tribals. The princely states and the colonial administration looked up on the tribals as uncivilised barbarians who did not require any attention. Their access to forests were became more and more restricted and whatever land they had was taken away from them by powerful non-tribal people. Consequently they were turned into landless labourers. At the time of independence, the tribal population of India was already in the grip of poverty, malnutrition, ill health and deprivation (Baradwaj, 1985; Viswanathan, 1998). Foster (1973) and Baradwaj (1985) have elaborated in detail, the formulation of various policies at the national level to safeguard the interests of the tribals and the debates and the public discussions that preceded these decisions. The policy of isolating the tribes was later given up in favour of more proactive policy which aimed at their all round development.
The commitment to the objectives of social justice, equality of status and opportunity enshrined in the constitution of India called for urgent measures to solve the problems of the tribals and several policy formulations and concerted steps were initiated in the early post independence years (Singh, 1964; Bennet, 1975). The constitution of India laid emphasis on two approaches to tribal welfare viz. protective approaches and development approaches. Provisions in the article 46, 244, 330, 332, 334, 335, 338, 339, 342 and schedules V, VI to constitution of India were made to ensure protection and development of the tribal communities in the country and to bring about their gradual integration with the national mainstream.

Elwin (1963) stressed on the need for tribal people to come to terms with their own past and the importance of integrating them to the Indian society in such a manner that the nation as a whole will benefit by ensuring their empowerment. The objectives of tribal welfare strategies were spelt out to be the increase of national as well as per capita income and to raise standard of living of the people and secure justice freedom, equality and security for them in society through full utilisation of manpower, equitable distribution of wealth, better utilisation of natural resources and the protection of the environment (Crompton, 1977; Bhanje, 1993).

The robustness of the tribal people of India have been exposed by several researchers and authors. The role of the communal land system in tribal settlements in the evolution of subsistence strategies and the structure of the tribal society which makes them distinct from the peasant class have been discussed in detail by Burman (1992). The mode of living, nature friendly attitudes, cultural elements that reinforce man-nature relations in communities, the transformations in tribal communities, the impact of modernisation and the effectiveness of welfare programmes in tribal communities have been a subject of close scrutiny in recent times (Fernandes, 1993; Breman, 2007).

Several relevant studies have been reported to conceptualize the tribals in various parts of India. Sen (2003) analyzed the Hoes of Singbum as a tribe and evaluated various criteria used to categorize people as a tribe. Tribalism and tribal identity of the Oraons and Tana Bhagats in late nineteenth and early twentieth centuries have been evaluated and it is reported that many of the specific tribal characteristics were
products of history as constructed by the British colonial officials, as well as Christian missionaries and the anthropologists (Gupta, 2003).

Broome (2001) studied the effectiveness of community based conservations at Mendha-Lekha in Maharashtra. The experiences revealed that the powerful tribal traditions of community decision-making could evolve strategies for reviving and protecting natural ecosystems and at the same time ensure livelihood security to them (Pandey, 2003).

Haimendorf (1990) did extensive field work in peninsular India and Nepal among some of the most primitive hunters and food gatherers, for over 50 years between 1935 and 1988. His anthropological studies among the tribals in the wooded hills of the Deccan as well as in the open plains where more advanced farming societies lived had for the first time provided information on the conditions of the scheduled tribe communities of India. His report on the detailed work carried out by him among the tribals extending over such a long period has clearly shown that tribal populations are undergoing gradual transitions as they are affected by rapid modernization and that they are unable to preserve their cultural and religious traditions under the changing circumstances. He is of the opinion that anthropologists and social scientists should not overlook the process of change taking place among tribals.

Savyasaachi (2001) established the fact that the tribal people are not a homogeneous group economically, politically, culturally and socially. The cultural diversity as well as the political and economic inequality among the tribals raise inherent problems among these communities.

‘Vivekananda Girijan Kalyana Kendra’ (VGKK) a voluntary organization founded in 1981 and engaged in tribal development activities in the forest regions of Yelandur, Chamarajanagar, Kollegal and hill tracts and foot hills of Biligiri Range and Mahadeshwara hill in Southern Karnataka have studied the outlook and habits of Soliga Tribal inhabiting the area. ‘VGKK’ focused on the health care and education of Soliga tribes. Their approach to tribal development programmes was to ‘minimize external distortive influence on tribal culture’. At the same time they opposed
unnatural stagnation in existing culture by constantly upholding their culture or by totally isolating them from the rest of the population (Somasundaram, 1990).

There is a dramatic disparity between rural and urban areas in India with regard to the facilities for health care (Narang, 2008). The preamble of World Health Organization declares that the enjoyment of highest attainable standard of health is one of the fundamental rights of every human being. Indian constitution also accepted health as one of the fundamental human rights. The study on the health care industry in India has revealed that, over the past 57 years, substantial gains in health included increased life expectancy, reduced infant mortality, reduced fertility rates, eradication of smallpox and guinea worm, reduction of poliomyelitis, and reduction of leprosy. The Crude Death Rate (CDR) and Crude Birth Rate (CBR), decreased from 27.4 per thousand in 1951 to 9.0 in 1998 and from 40.8 per thousand in 1951 to 26.4 in 1998, respectively. Life expectancy at birth increased from 32.1 in 1951 to 63 in 2005 and the infant mortality rate (IMR) declined from 146 per thousand in 1951 to 56 in 2005 (WHO, 2013). The study also showed that 33.5 percent of births in rural area as compared to 7.3 percent in urban areas are unassisted by skilled health personnel (WHO, 2013).

A study on the views of the Andaman Tribe of Onges regarding forests and the natural environment was made by Pandya (1993). He examined the significance of smell in the ritual process in his study and argued that there is a relation of power in rituals to control the natural environment.

Education of tribal children have been the area of study for several organizations. Bagai and Nundy (2009) have reported the necessity for a fine balance between cementing indigenous values while embracing modernity in all matters relating to tribal education. They hold that the recent trend to connect modernity to indigenous values is a progressive phenomenon.

Nair (2008) has studied the health status and ethno medicine of tribes of Kerala in relation to their ecological and socio-cultural determinants and reported the impact of tribal development programmes which emphasized the development of modern agriculture in tribal lands in Attappady area of Palakkad District in Kerala found to be highly detrimental to the interests of the tribes. A study by Kalathil (2004) warned
that Tribal Agriculture which was more suited to the needs of the tribals would be destroyed if modern agriculture was promoted in tribal lands. Further experience in subsequent years have shown that many of the tribal problems such as malnutrition and anemia related deaths in the colonies were a direct outcome of the deviation of tribals from their traditional organic farming which sustained them through centuries.

Gurukkal and Ramesh (2007) analyzed the spatiality of biological and human ecological matrix in evolving integrated forest landscape management strategies in the southern Western Ghats. Spatiality of subsistence and the human ecology of landscape in the area also have been studied by them.

The displacement of the tribals from their homelands in Idukki occurred repeatedly on account of the construction of dams and the hydroelectric projects. Machenzie (1963) describes the displacement of tribals from the Periyar forests when Mullaperiyar dam was constructed across Periyar and Mullayar river in 1895. The declaration of the Periyar forests as a tiger reserve in 1934 also brought about large scale displacement of tribal people in this area (Morris, 1982). Later ten other major dams and over two dozen minor ones constructed in the area caused drastic habitat change for the tribals. (Sivanandan et al., 1986). The impact of such displacements and habitat changes on the lives of Mannan and Paliyan tribal communities in the Western Ghat was studied by Suresh (2008). The tribal people are observed to schedule their subsistence in such a rational way that the families are sustainable to a considerable extent and this evidences that they are far from being object or primitive (Ratnakar, 2010).

The principle of benefit sharing with tribal communities is elaborated in the case study reported on the arrangements for sharing the economic benefits from commercial products manufactured using the fruits of the plant Trichopus zeylanicus travancoricus (Anuradha, 1995). The Tropical Botanical Garden and Research Institute (TBGRI), Thiruvananthapuram entered into an agreement with the Kani tribes in Thiruvananthapuram district of Kerala to share 50 percent of the commercial benefits that would be derived from the sale of drug manufactured using the fruits of the above plant. This agreement has been in tune with the mandate of Article 8(j) of the convention on Biological Diversity (CBD). The scientists of the TBGRI were led to the investigations of the pharmacological properties and then to the development of
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drugs out of it on the basis of the traditional knowledge of the Kanis about the practical use of the fruits for medical treatment and for healthy living. This particular case is viewed upon as a model for sharing the benefits of traditional tribal knowledge.

Singh (2000) has made an indepth analysis of the dynamics of changes in Tribal Communities across India. The study undertaken on the lifestyle and customs of Muthuva tribes by Damu (2003) considers them as ‘Ecosystem People’ who protect wilderness. The Muthuvans are ‘the superior tribemen’ of the splendid highranges living at altitudes between 3000ft and 6000ft. The Muthuvans who form a very closely guarded community have very peculiar customs, traditions, beliefs, mores and are not known to the world. Thurstan (1906) holds the view that anthropologically, the Muthuvans are a mixture of Proto-Austroloids (the Pre- Dravidians) and the Negritos. Ward and Conner (1860) in their memoir of the survey of Travancore and Cochin States state that the Muthuvans are somewhat more civilized than the other hill tribes.