

**COLONIAL INTERVENTION AND
TRANSFORMATION OF HUMAN ECOLOGY:
TRIBAL LIFE IN MALABAR, 1800-1947**

Thesis submitted to the
UNIVERSITY OF CALICUT
for the award of the Degree of
DOCTOR OF PHILOSOPHY IN HISTORY
Under the faculty of
SOCIAL SCIENCE

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**Affiliated to the University of Calicut
December 2020**



UNIVERSITY OF CALICUT

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4.	Department/Institution	PG & Research Department of History Farook College (Autonomous), Kozhikode		
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I hereby declare that the thesis entitled “**Colonial Intervention and Transformation of Human Ecology: Tribal Life in Malabar, 1800-1947**” is an authentic record of the research work carried out by me under the Supervision of Dr. Manmathan M.R., Associate Professor, P G & Research Department of History, Farook College (Autonomous) Kozhikkode. I further declare that this has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or any other similar title of recognition.

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Farook College,

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Dr. MANMATHAN M.R.

Acknowledgements

I owe my deep sense of gratitude to my guide and supervisor Dr. Manmathan.MR, Associate Professor, P G & Research Department of History, Farook College (Autonomous) Kozhikkode, for giving me guidance through valuable suggestions and constructive criticism. I express my sincere thanks to him for the inestimable and unstinting support and co-operation he extended to me throughout the period of my research. His academic vigor, enthusiasm, encouragement and relentless help have played a vital role in the successful and timely completion of my work.

With heartfelt gratitude, I remember the support extended by the authorities of Farook College Kozhikkode. I thank the college for permitting me to carry out this study as part time research. I place on record my special gratitude to all the principals of the college during my research period for their incessant support in carrying out this study. I am extremely grateful to all the teaching and non teaching fraternity of the college, especially the History Department, research coordinator of the college and other stakeholders, for their support and cooperation throughout my research.

With open heart, I extend my deepest gratitude and thanks to the principals and faculty members of the colleges where I worked during this period of my research. I am also thankful to all the staffs of libraries of these colleges for their support extended to me all through my research period.

I am thankful to all the staff of the Regional Archives Kozhikkode, especially Majeed sir and Varghese sir. I express my deep gratitude to the staff of the National Archives, New Delhi, Central Library Jawaharlal Nehru University, New Delhi, Academic Staff College Library, J.N.U, Nehru Memorial Museum Library, New Delhi, Central Library ISEC Bangaluru, C.H.M.K Library University of Calicut, Appan Thamburan Library Thrissur, KIRTADS, Kozhikkode, History Department library, University of Calicut, KFRI Nilambur, especially Dr.Chandrasekhara, Divisional Forest Office, Nilambur, Manjeri Public Library, officials of the Southern Railway, The persons and officials closely associated with various estates etc. They have supplied me the valuable information and document with valuable information and documents with regards to this study. I express my heartfelt thanks to many a former laborers also.

I extend my deepest gratitude and thanks to Dr.Subha, former research coordinator, and Dr.Sajitha research coordinator Farook College for their love and support. I also express my sincere thanks to Dr.Fazalrahman former Head, and Dr. Muhammadali, Head of the Department of History and other faculty members for their timely interventions and care and services extended to me. I also remember my fellow researchers and research assistants in the department for their support and suggestions.

For undertaking this work I have received help and support from various persons and institutions. I am greatly indebted to Dr. Sebastian Joseph, Head, Department of History, UC College, Aluva, for his love and support. I express my gratitude to Dr. P.S Manojkumar, Head of the Department of History, S.C.A.M Govt.college, Kuttanellur.

I express my deep gratitude to Dr. Gunnel Cederlof, Dr.Ramachandra Guha, Dr. Madhav Gadgil, Dr. Mahesh Rangarajan, Dr. P.sivadasan, Dr. Muhammed Maheen, Sirajudheen, Abdul Gafoor.P, Dr. Seetha Kakkoth, Dr.Ananda Bhanu, Dr. Sreevidhya.V, Dr. Vinod Navath, Shameerali, Dr. Biju. R.I, Dr.Sheeba.KA, Dr.Vinod.VM, Anoop Thankachan, Vrinda for the academic support they provided to me.

I am also thankful to Balu Ettan and other friends in M/s Bina Photostat, Chenakkal, near University of Calicut for the typing and allied works of this thesis.

I am greatly indebted to my beloved wife Sunitha.K for her constant enthusiasm and encouragement for the completion of my work. I also express my sincere and deep sense of gratitude to relatives and friends who helped me in many ways and means. I am also thankful to my daughter Neeharika Uday and my niece Badra V Sajad who had to forego many a number of affectionate moments on account of my research.

UDAYAKUMAR, P.

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List of Abbreviations

B.N	-	Book Number
B.R.P	-	Board of Revenue Proceedings
C.U.P	-	Cambridge University Press
D.F.O	-	Divisional Forest Officer
E.I.C	-	East India Company
F.N	-	Forest Number
K.F.R.I	-	Kerala Forest Research Institute
O.U.P	-	Oxford University Press
P.D	-	Public Department
R.A.K	-	Regional Archives Kozhikkode
R.D	-	Revenue Department

Chapter I

Introduction

Colonial rule was based on a culture to rule over people and nature. Colonial government dominated human resources and natural resources. The British forest policies, the exhaustion of forest resources and its impact on environment and forest dwellers are well discussed by historians, environmentalists and social scientists in recent years. Forest or nature (ecology) is an inevitable element for the survival of human beings on earth. But nature (wealth) began to denude with the incursion of the forests by the beginning of the 19th century. Given the inception of English rule in Malabar, they were attracted by the natural wealth of the area. Malabar was one among the districts under Madras Presidency. This area was well known for its natural wealth, particularly thick forests since time immemorial.

The early British administrators considered Malabar region as a pivotal centre of timber wealth (especially teak) which was inevitable for the construction of military and commercial ships. Later, in the second half of the nineteenth century, the consolidation phase of the British rule in India the colonial rulers utilized great quantum of timber for railway sleepers. Besides, the forest department formulated several policies to enhance the natural vegetation and on that place commercial timber plantations were initiated. At last the establishment of plantations in the highland of Malabar also reduced the forest coverage and affected the ecosystem and nature of habitation.

The first attempt of organized timber trade in India took place in Malabar in 1796 by William Maconochie, who established a timber syndicate in the Malabar district. In 1805, the court of directors received a dispatch from the British

government inquiring into the feasibility of extracting teak from Madras. To ensure the regular supply of teak the British government passed a resolution on 25 April 1806 by establishing state monopoly over the extraction of teak. Besides, Captain Joseph Watson was appointed as conservator of forests in Malabar with police rights.

British even persuaded private proprietors to relinquish their claim over the land to cut trees and they were compensated for each tree felled by the government. Private contractors and agency houses were permitted to carry out timber business provided they possessed the company's license. The timber merchants known as *kutti kanam* (stump fee) and the proprietorship continued till 1859. During 1807 to 1922, the government extracted forest wealth for specific purposes under royal tree system in Malabar. The opposition and the conflict between Madras government and the government over the timber trade under Munro established teak plantation in Malabar in 1842. Lt. Conolly was behind the first forest planting initiation in India.

The genesis of the construction of Madras Railway by 1850 sounded the death knell of the virgin forests and natural wealth of south India. The idea behind it was for the commercial and military advantage of the imperial government. The scientific forestry in India was started in 1860s; under German Forest expert Dietrich Brandis, Forest Department was established in 1864. Large scale reserved forests in Malabar were started after Madras Forest Act of 1882. The reserved forest and reserved land thus came in to being. After the complete felling of trees the forest department planted Eucalyptus, Acacia and other trees in the forest.

Under the colonial rule south India was a foremost centre of European plantation in India. Mono crop estates were established in different parts of the Madras presidency since the first half of the 19th century. Various crops were introduced. The sudden and intensive forest clearance began in 1830s with the appearance of plantation crops. With the success of these estates a number of

European investors secured land in Malabar area for beginning large scale plantations. The planters obtained land for raising plantation in many ways. The government supplied land for English planters and the demand for land increased, the Madras government decided to increase revenue by selling waste land for new cultivation. The European capitalists acquired land from the *janmies* on *kanam* tenure. This lease was generally for 99 years. In many places plantation mono cropping was accompanied by Malaria.

Ecological imperialism in Kerala started with the Portuguese. But the British colonial rule marked a crucial watershed in the ecological history of India including Malabar. In the pre British period the forest dwelling people served as the bridge or buffer communities between kingdoms. Once the British consolidated their power in the subcontinent they had little need for buffer states in the country. After the success, the claims on arable forest had to be reconstructed. Indigenous societies, before the advent of colonialism, were able to maintain a state of ecological homeostasis with their environment. They achieved this equilibrium, it is said, thanks to their rich knowledge of the natural world and to the innate wisdom of this self-managed local community, which was spontaneously inclined to nature conservation, and practiced collective self restraint in the utilization of its resources.

Statement of the Problem

Indigenous societies in contact with the 'other' cultural patterns were subject to constant change. The most crucial element that reoriented 'traditional' societies was the advent of colonialism. The process of colonialism has almost invariably resulted in great degree of structural change in colonial societies. There were attempts to change forcibly many of the traditional practices. These practices were at work in Kerala during the period of colonialism and resulted in major changes in the social and economic structure. Colonial control over indigenous societies was made

possible and then sustained and strengthened as much by the cultural and diplomatic technologies of the ruled.

Tribal life in Malabar provided a uniform pattern of existence. The tribes have their own way of life, culture, practices and interlinking similarities. There was an approximate equilibrium in the use of natural resources. The transformation of the traditional life of the tribal people and the alteration of their ecosystem occurred with the coming of Europeans. It is a recognized fact that the industrial mode of resource use in India began with the advent of colonialism. The industrial society rejected the gather view of man as a part of the community of beings, or the agriculturist view of man as a steward of nature. The ideology of conquest over nature as well as modern lifestyles has resulted in a radical alteration of the landscape of the globe. Industrial societies have, to be fair, made systematic attempts to safeguard their own environments. The natural habitats of Kerala were encroached upon by intruders, shattering the tribal society and economy. The colonial intervention in the tribal habitat of Malabar was through the introduction of plantations, the construction of roads, canals and the opening of the land to the money lenders, traders and revenue farmers. The British plantation led to the disintegration of the age old tribal social cultural systems and their forest oriented subsistence patterns. Prior to the colonial intervention, commercial exploits of forest produce was largely restricted to the collection of spices and that of ivory. These extractions did not pose a serious threat either to the ecology or customary use. The forest recourses had been controlled and used collectively by village communities by ensuring the sustainable use of the renewable resources. Being a non market economy was its most distinctive feature and community itself managed it without the intervention of external force.

After the capture of Malabar, the British attempted to occupy vast tracts of tribal lands. In the process of commercialization, the colonial policy refused to

accord due importance to ecology and environment as well as to the sustainable livelihood of the tribal communities. The penetration of market forces was not confined to the economic sphere alone; as it permeated the entire socio- economic, cultural and administrative set up of the tribal economy. Due to the British intervention, the tribals in Malabar were geographically exposed to the outside world. By nature tribals were adamant to their culture and it became extremely difficult for them to follow their own customs and practices in an alien environment.

The present study enquires into the nature of colonial impact on tribal life and landscape and the element of violence involved in it. Political ecology tries to analyze the problem of development and its relationship with power, exploitation and ecological disaster. Colonial impact was crucial in bringing about historical change and an ecologically informed history alone can help us to understand the impacts in a clear perspective. Here the attempt is to understand the transforming relationship between humans and nature as its core focus and the process of ecological degradation.

Conceptual Frame

The Marxian Ecology theory upholds the view that Colonialism, Imperialism and Capitalism transformed the entire structure of the world. The studies of John Bellamy Foster on the impact of imperialism and capitalism in the world and its impact on the spatial geographical changes has profoundly explicated in his works. The Marxian Ecological theory or concept that, colonialism, imperialism and development of capitalism had applied to find a conclusion that, it had a direct impact on Malabar in its total transformation under British colonial regime. It also tries to examine the relationship of ecology with capitalism and modernity. The dialectics of nature, a historical-cultural frame of analysis is focussing on human praxis that excluded non-human nature. The Marxist ecology discusses the co-evolutionary relations between society and nature and it also discuss the material

relations between humanity and nature. The material world was experienced by human beings as a sensuous reality and hence the liberation of the world required the emancipation of the senses and of the sensuous relation to nature along the emancipation of the society.

Marx's explicit treatment of nature in terms of the dialectical method focussed on those realms in which nature was objectified through actual human praxis – both natural and social. For Marx, human history remains part of natural history but is not subsumed by it – that is, society is embedded in nature and dependent on it, although there are distinct social and natural processes. A dialectical relationship exists between society and nature, as they continually transform each other in their co evolutionary development. The direction of this relationship is not predetermined; the future remains open. Dialectical materialist position for understanding of nature via an understanding of the development of life and natural history and it can clearly be seen in the explained in the transformations of Malabar.

Transfers in economic values are shadowed in complex ways by real material ecological flows that transform ecological relations between town and country, and between nations, especially the core and periphery. Humans depend on functioning ecosystems to sustain them. Metabolic interaction between humans and earth, a process between man and nature, a process by which man through his own actions, mediates, regulates and controls the metabolism between himself and nature.” A metabolic relationship involves regulatory processes that govern the interchange of materials. The transition from feudalism to capitalism ushered in a new social metabolic order that shaped the interpenetration of society and nature¹.

¹ J. B. Foster, *The Ecological Rift Capitalism's War on Earth*, Monthly Review Press, New York, 2010, p. 348.

Cultural and political aspirations with programs of nature conservation or environmental protection changed the everyday life of the people of Malabar in general and tribes in particular. The concept of ecological nationalism enables us to distinguish between civic and ethnic nationalisms. The language of nature intimacy, stewardship, and respect for lived landscapes and other that affirm affinities between cultural identity and environment, new political performatives. Human relations with the environment may imply changes in social and political life. The interdisciplinary rubric of political ecology made possible integrated studies that linked analysis of social change, environment, and development.

The emergence of plantation economy was the beginning of capitalism in agricultural sector. The prospects of high profits, availability of cheap labour and raw materials and ready markets were some of the factors that attracted the foreign capital to India. Plantation brought the skills of mechanization. The colonial masters introduced significant innovations in the economy of Kerala by the innovation of new products and scientific cultivation. The British bestowed their attention on the improvement of Kerala after their hold over the country. Their immediate concern was the forest wealth of Kerala as well as cultivation of spices.² The government and the British officers extended patronage to the owners of the plantation in Britain. The capitalists reached the colonies for investments and they found plantations to be a suitable area of investments. One of the important features of colonial economy in Kerala has been the development of plantations – Tea, Rubber, Teak, and Coffee etc.

² A. Sreedhara Menon, *Cultural Heritage of Kerala: An Introduction*, cochin, 1978, p. 217

Imperial impacts were inevitably multidimensional, with many a legacy still influencing and shaping the modern world.³ In Kerala, Malabar region has had a rich forest and rich timber tradition from the earlier times onwards. World ecology has been profoundly altered by western capitalism, in whose dynamic expansion other ecosystems were disrupted, first through trade and later by colonialism. Not only did such interventions virtually reshape the social, ecological and demographic characteristics of the habitats they intrude upon, they also ensured that the ensuing changes would primarily benefit Europe. There is an intimate connection between western imperialism and environmental degradation of India.⁴ The introduction of new crops-mono cultivation and mono culture, change in the landscape, new labour system and culture, deforestation and destruction of the life of the animals, mining etc were the important ecological impacts of the intervention. Plantation forestry is the prime sector in the forest economy of Kerala and forms one of the important economic activities in the state. Extensive areas under forest plantations have been established in Kerala by investments to produce timber and industrial woods, most of the long term investments in timber production. The capitalists reached the colonies for investments and they found plantations to be a suitable area of investments.⁵

Human Ecology

Human ecology is the study of the relations between man and nature. But in fact, it is not simply the relation between man and nature but the entire cultural, social, political, technological, ideological subsistence that is created with man as

³ Deepak Kumar, Vinita Damodaran and Rohan D'souza (eds), *"The British Empire and the Natural World Environmental Encounters in South Asia"*, OUP, New Delhi, 2011, p. 1.

⁴ Gadgil. M and Guha. R, *This Fissured Land: An Ecological History of India*, OUP, New Delhi, 1992, p. 116.

⁵ See also *Indenture between Kerala Calicut Estate Limited and Kerala Tea Company Limited*, Doc. No. 751, 9th April, 1934.

focal point of an interaction in ecology. It is an interactive or interdisciplinary phrase. Man is the centrality of human ecology: man decides the way in which the particular ecology is to be defined and configured.

Human ecology understands how the human interaction changed the natural environment. The change in the nature or ecology brings the upsets in the naturalistic explanations of social phenomena with biological and geographical determinism in any ecology. It helps us to understand human societies and their relationship to the natural world. Ecology has tended to focus more narrowly up on the study of nature and intervening man as an agent in shaping and transforming the natural environment. The study of human engagement with the physical environment over time and the environment acts as a context, agent and influence in human history and its transformations. History is a saga of change. If people and the world around them remained the same from year to year and generation to generation or merely repeated a cycle of growth and decay that offered no escape. But the change is an inescapable phenomenon in human societies and the world of nature, and the relations linking them⁶.

Ecological changes were the result of the intervention of the human societies and their relationship to the world, intervention of man as an agent in shaping and transforming the natural environment. Humans engaged in overtime with the physical environment as context agent and influence in human history and historical change.⁷ Forest is an inevitable element for the survival of human beings on the earth. But the virgin jungles were on the verge of extinction since the beginning of the twentieth century because of the intervention of the people in the name

⁶ J. Donald Hughes, *An Environmental History of the World Humankind's changing Role in the Community of Life*, Routledge, New York, 2009, p. 1

⁷ See also, David Arnold and Ramachandra Guha, (ed) *Nature, Culture, Imperialism: Essays on the Environmental History of South Asia*, Delhi: Oxford University Press, 1995.

of development and agriculture. Our forests began to denude with the incursion of colonial into our natural resources by the beginning of the nineteenth century. Due to the British intervention, tribals in Malabar were geographically exposed to the outside world. The advent of British rule heralded the disorganization of the inter relationship between caste and resource system. They imposed much higher levels of demands on natural resources of the country to furnish the raw materials for their economy.⁸ By nature tribals were adamant to their culture and for them it is extremely difficult to follow the customs and practices of an alien community. The tools of diplomacy and technology had used for attaining control over the indigenous communities. In the colonial agenda, there was no space for the welfare of the tribal people, conservation of their ecology and environment. In the colonial interaction there was no concept of acculturation, but only integration into the colonial and capitalist matrix and it created far reaching and drastic effects on the tribal society.

The emergence of plantation economy affected the ecosystem. It led to deforestation and thereby a decline in the livestock population. It also affected the paddy cultivation. The large scale cultivation of cash crops led to a decline in paddy cultivation. Human ecology is the understanding of human interactions with the natural environment. Even a slight change in the nature or ecology also upsets the naturalistic explanations of social phenomena with biological and geographic determinism of the entire area. Colonialism totally altered the entire rhythm of the nature and its existence.

Before the establishment of British rule in India, the inhabitants of India relied upon forest resources as an essential element for their survival. With the advent of the British in India, forest of India became a vital necessity for the state.

⁸ Gadgil M and Malhotra, K. C, 'The Ecological Significance of Caste' in Guha R (ed), "*Social Ecology*", OUP, New Delhi, 1994, p. 37

Under various treaties and lease with local rulers and chiefs, the government could get the property right of the area. There were only the small resource of the forest under the local authority and the rest were under colonial control and if the local authority cut or taking anything from there and they have to give or pay Kuttikanam (especially for cutting of trees). The government acquired the right over the land even from the minute local chieftains and concluded the treaties with them and which empowered the government full power and authority to fell timber from the soil and hills as well as every right and liberty over the soil and hills in the same manner as if they are their own property until the same should be abandoned by them for their own accord. The forest was notified in 1885 and as a reserved forest under section 25 of the forest Act. In 1884 Mr. G.V. Dance, assistant collector commenced negotiations with the *zamorin* for the surrender of the following rights viz to collect elephant tusk, to capture elephants, to wash for gold (the Nilambur valley is noted for the gold deposit).and the agreement was signed on 15th October 1885 in which the right was surrendered. The price of the elephants captured will be fixed by the district forest officers within one month after the capture.

Large scale timbers were needed for big buildings, houses and even for the cathedral's roofing, vault frames and scaffolding which required the right size and shape timbers. So they sought the colonies and found the Malabar .The colonial masters knew the forest wealth of Malabar from the Arabs and other traders. The demand for the straight poles in England for the fly cathedrals' also turned to here because in the earlier time the timber for this was came from Scandinavia⁹. But owing to the excess exploitation it was exhausted. The transplantation of self-sown teak saplings were made but there had already exhausted surface soil proved a failure. So they introduced scientific methods to the planting, Dr. Wright, the superintendent of Cotton farm and Mr.Perrottet, superintend of botanical garden of

⁹ I. G. Simmons, *Global Environmental History 100 BC to AD 2000*, Manchester, 2008, pp. 76-77

Pondicheri and reported a letter on 4th august 1842 that of 30000 seeds and 10000 saplings were transplanted¹⁰. The administrative reports shows the considerable progress and satisfactory and recommended to expand the plantation. Many officials in charge of the plantations visited and submitted a report which explains the success of the plantation and the financial success too.

From the 1770s until about 1860 fluctuating demand for naval and military (plus some urban construction) timber represented the main significant commercial and demand factor in British forest policy in India¹¹. The forest policy of eighteenth century Britain was determined primarily by the requirements of Oak for Lee Navy and merchant marine. In the search for after sources for the ship timber, search was also made for a species which might provide an alternative to Oak. The assistance of East Indian Teak was found to be splendid candidate to substitute the Oak.¹² They developed monopoly in the timber extraction of the west coast and exterminated the rights of private individuals. It has been noted that the colonial state constantly strove to devise more and more sophisticated and efficient ways of not only extending its control but also extracting revenues, resources and labour. The colonial capital and technology worked hand in glove to exploit the rich natural resources of Malabar. The private property rights in land had profound in the changes of the human ecology of the area. The interdependency of agriculture; forest and the man were collapsed after the sway over the land. The attitude of the people towards the forest and their environment underwent drastic changes.

Environmental factors had an extensive impact on the human civilization and culture. There are several evidences reveals in history where environmental factors

¹⁰ See also, K. V. Kunhikrishnan, *Forest Policy and Administration In British Malabar 1800-1947*, Un-published PhD Thesis, University of Calicut, 1995.

¹¹ Richard Grove, *Green Imperialism: colonial expansion, tropical island Edens and the origin of Environmentalism, 1600-1860*, C. U. P, New Delhi, 1995, p. 389.

¹² C. Balan(ed), *Reflections on Malabar Society: society, Institution and Culture*, Kanhangad, 2000, pp. 57-58.

had changed the course of history. Colonialism was a watershed in environmental history which marked as an important to theorize the colonial experience in the context of colonial state that initiated agendas and policies on forest, agriculture, irrigation, topography, flora and fauna etc. The colonial initiatives created a hegemonic order over the nature and its people in colonies. Environment was central in shaping history of the locality and people. In Kerala the nature had an important place in the life of the people in the form of sacred groves, and it was the common place of environmental romanticism-the notion that natural resources in pre capitalist social formations tend to be held in common.¹³

Colonization of India by the British led a peculiar type state of ecological imperialism in which the forest wealth of the colony was brought under the absolute sway of the colonizer through a series of administrative reforms and enactments. Control over forests and its resource utilization was viewed by the British as a crucial factor in maintaining their hold over India, for economic, political and military reasons. The forest department, a brainchild of the imperial ambitions, functioned like an agent of the British and served the imperial purposes at different stages. British forest policy was implemented throughout the British colonial empire. The British, in the course of dominating India, intensively felt the need for monopolizing the forest wealth as an exigency of the colonial government. Steps were taken by them to achieve this ambitious imperial need. Clear cut forest laws were made after invoking precedential legitimacy which the colonial government had drawn from the past history of the nation. Law was a coercive factor and the British government in India saw it as a strategy. Every region in India felt the impact of this colonial policy. The administrative reforms carried out in the management of the forest and the policies enacted bringing the sylvan resources under state control

¹³ Rich Freeman, 'Folk Models of the Forest Environment in Highland Malabar' in Mahesh Rangarajan and K . Sivaramakrishnan, (ed), *Indias Environmental History Colonialism, Modernity and the Nation*, Permanent Black, New Delhi, 2012, p. 174.

were carried out under the direct supervision and control of the imperial government¹⁴.

Capitalist ideology, historical capitalism¹⁵, brought each and every region under its network. Colonization of natural resources including the forest and nature was part of this process and perhaps the most significant factor. A world system had evolved by then under the global captaincy of British. To advance, to conquer, to exploit and to monopolise were the agendas of the forces of this system. The advent of the British and the consolidation of their power had affected a radical shift in the man-nature relationship. Such a mounting pressure fell on the imperial government that they decided to monopolise the entire forest wealth of India. Forest policy was designed to cater to the needs of the army, navy and the railways. By then, the reach of the capitalist ideology and superior technology had attained a global status. Most of the areas of the Malabar were covered by deep and dense forests. Tribals living in it had posed no threat to the forest wealth. They were engaged only in the collection of minor forest products and later they were absorbed as trackers and coolies with the establishment of the Forest Department. Destruction of forest was the rule of the day. In spite of the introduction of colonial administrative structures, the destruction of forests continued in the form of contract system, smuggling of timber and opening of plantations. Malabar was timber supplying agent to the British government for its railway extension programme. The forest officials extended full support to the timber traders, mainly Europeans. More forests were cleared for starting plantations.

Fernand Braudel made nature major focus of his study of the Mediterranean World, arguing that environmental trends, which he believed occurred slowly and

¹⁴ Sebastian Joseph, *Cochin Forests and the British Techno-ecological Imperialism in India*, Primus Books, Delhi, 2016, pp. 1-6

¹⁵ See Immanuei Wallerstein-capitalist ideology popularly known as historical capitalism.

repeatedly, the course of human history¹⁶. Donald Worster has defined environmental history as ‘the study of the role and place of nature in the human life’. Its primary goal is to reveal how human actions and environmental changes are intertwined. Nature, instead of being merely the backdrop against which the humans are played out, is recognized as playing an active role in the historical process. To fully grasp the complexities of human environment, historical research is generally carried out at four levels: (1) understanding the dynamics of natural ecosystems in time; (2) examining the interactions between the nature and the socio-economic realm (including technology); (3) enquiry into environmental policy and planning; (4) exploring changing cultural values and beliefs about nature.¹⁷

Forest as a Matter of Subject in the Historical Studies

E P Stebbing’s famous three volume work *The Forests of India* is the bedrock of imperial administrative historiography on making of the British forest policy and its management in India. This work clearly explains the pre-colonial forest practices and attitudes and the significance of the British intervention. Berthold Ribbentrop was another colonial writer on ecology through his *Forestry in British India* discusses the details of Indian forests and its transformations. William Schlich’s *Manual of Forestry*, its publication marked the crystallization and institutionalization of the approach to forest management adopted by the Indian forest department over the preceding four decades.

The development of colonial forest legislation and administration in north Canara forms the subject matter for M. Buchy-Teak and *Areca nut: Colonial state, Forest and People in the Western Ghats, 1800-1947*. Cleghorn’s work *Forest and Gardens of South India* deals with the description of fauna of Malabar. K.V.

¹⁶ Fernad Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, 2Vols., tr, Sian Reynolds, New York, 1976.

¹⁷ Sebastian Joseph., *op.cit.* ., p. 10

Kunhikrishnan's work on British Indian forestry concentrates on the evolution of colonial forest policy in Malabar which is set against the broad canvas of colonialism and emerging market economy controlled by the British capital.

Cochin forests and the British: Techno-ecological Imperialism in India is a magnificent work done by Sebastian Joseph. This book gives the detailed picture of the transformation of the forests and the ecology of the erstwhile princely state of Cochin with ample archival materials. It also looks into the history of the forest policies, forest historiography, ecological historiography of India and the process of transformation of the forests of Cochin and Malabar in the colonial times. This book deals a new shift in the realm of historical analysis especially how the technology transforms the nature with introduction of tramways.

The work of C.K. Karunakaran, entitled '*Keralathile Vanangal Noottandiloode*' (forests of Through Centuries) is a brilliant attempt to unravel the history of the forests of Kerala. This book is an important source for the study on the transformation of forests from the colonial times to the post colonial period. It gives us a clear cut picture and description of the transfiguration of the forest and its management and its after effects.

Colonialism was a global phenomenon and the exploitation of the forest wealth of the colonies was also a global phenomenon too. The nineteenth century witnessed a unified global economy controlled in many ways by the British capital and technology and the British imperial institutions. Intervention was the strategic and safe option for the British for the British to get those regions annexed to the European capitalist world system. Colonial ecological intervention, especially in deforestation, exercised a far more profound influence over most people than the more conspicuous and dramatic aspects of colonial rule.

Colonial Forest Policy

The forest policy enunciated by the British government in India depicted a definite colonial nature, for the embedded aim of the colonial rule was exploitation of resources of India both natural and human. The colonial forest policy was born out of the encounter between a traditionally agricultural nation and an industrially highly superior capitalist nation. Imperial requirement was the crucial causative factor in the evolution of colonial forest policy in India. Though the Britishers were new to the idea of forest management and tried to implement forest policy in India for their industrial development and the colonial expansion. The economic necessities in the Great Britain and the pressure of the capitalist class especially the timber merchants preferred the timbers from India. Railway expansion was the immediate reason for the setting up of forest department. For a great extent the British viewed the forest management only as a supportive factor for the expansion of the railway network.

The issue of the deterioration of the physical environment of the world as a consequence of the triumphant march of industrialism was foreseen by scholars' right from Marx and Engels. They clearly recognised the nexus between class, especially capitalist, society and nature, ecological disequilibrium and social inequality. This can be categorising as 1. Marx was very much aware of the social implications of the degradation of nature.² Engles expressed his concerns about the ecological imbalance in greater detail.³ Karl Polanyi, substantivist critic of Marx and Engels, also brought out vividly the ecological implications of the industrial revolution.⁴ E.P. Thompson (1973, 1983), Linebaugh (1976), and Agulhon (1982) have evolved their historical critique of the forest control systems in their respective countries.⁵ They show how the powerful and more articulate sections in society grab and monopolise resources belonging to the entire community. The world system series dwells upon the thesis of the world wide dynamism of western capitalism,

which introduced change in resource control and caused beginnings of major conflicts over natural resources,⁶ Alfred W. Crosby's momentous work, '*Ecological imperialism*', has brought out with forceful clarity the devastating impact of colonialism on the biological world.

Ecology acts more or less as a determinant category for explaining social change, a cognitive substitute for conceiving socio-economic processes within the framework of the mode of production paradigm. The pace of the Industrial Revolution compelled the European, especially British, to fan out worldwide in search of new resources. Wealth poured into Europe from all over the world which contributed substantially to the development of the Industrial economy.¹⁸

The ideology of conquest over nature as well as modern lifestyles has resulted in a radical alteration of the landscape of the globe. British colonial rule marks the crucial watershed in the ecological history of India. The spread of European science and technology has been central to global transformation. Rivalries among the Portuguese, Dutch, French and British over the natural wealth and political control ended with the victory of the British. After the British success, the claims on arable and forest lands had to be reconstructed. The forests of Malabar were among the earliest and worst affected areas by this imperial connection. 'Extractive appropriation and exploitation of the resources of the Malabar forests was thus tied closely to the world wide dynamism of Western capitalism and its spearhead, colonial imperialism. As Malabar teak was best suited for naval construction, the Malabar government sold approximately 1600 to 2000 candies of timber annually to the Company since the early nineteenth century. The system of

¹⁸ K. V. Kunhikrishnan, 'The Colonial State and India's Forests: Strategic Requirements and Policy Shifts, ' *Proceedings of the Indian History Congress*, Vol. 59 (1998), pp. 496-505

timber monopoly benefited the colonial state in ensuring timber supply at subsidized rate'.¹⁹

Prior to colonialism and industrialization, India's culture was imbued with a set of beliefs and practices that naturally held human demands on the environment in check, so that populations and their forest environment existed in a kind of ecologically sustainable homeostasis. In particular it is the religious values and institutions of Hinduism or its folk-variants that are supposed to have somehow encoded and transmitted this ecological wisdom across the generations. In its extreme development this religious eco-logic is even invoked as nature's mandate for the caste-system. The claim is that the supposed endogamy of castes made them like natural species, and their supposedly caste-exclusive occupational specialization was like the adaptation of species to different and complementary environmental niches. In tracing man-animal relations into religious institutions, there is indeed a clear complex of rites focused on animals and hunting, but in keeping with the enculturation of nature seen earlier; there is far greater concern with human or divine regimes of prestige and power than with the animal populations as a resource to be rationally man²⁰.

The pre-colonial life world was more general bio-cultural scenario, positing that 'traditional' socio-cultural institutions in India were shaped in accord with nature's dictate of conservancy. Freeman clearly highlights these transformations with suitable arguments of Grove and Hardiman on theoretical base. Richard Grove, specifically with regard to the British colonial administration of India provides detailed description of this transformation. To rephrase Grove's thesis simplistically

¹⁹ Louiza Rodrigues, 'Commercialisation of Forests, Timber Extraction and Deforestation of Malabar: Early Nineteenth Century', *Proceedings of the Indian History Congress*, Vol. 73 (2012), pp. 809-819.

²⁰ J. R. Freeman, 'Gods, Groves and the Culture of Nature in Kerala', *Modern Asian Studies*, Vol. 33, No. 2 (May, 1999), p. 276

in terms of Hardiman's question, 'the environmentalist movement arose in Western civilization precisely because it had demonstrable proof of how highly destructive its own technologies and policies could be to the natural environment. These effects were first perceived most clearly in colonial island regimes, where the ravages to nature were unmistakable. Later, as similar processes of rapid degradation were observed in Indian forests, a sector of the colonial scientific community that was consulted on forestry expressed their alarm, and began increasingly to formulate and urge various conservation policies on the British Government'. Of course these rarely prevailed in the aggregate against the arrayed commercial and political forces of colonial capitalist expansion, but the point is that the environmental concerns arose as an opposition to the capitalist regimes of exploitation within the context of their very operation. Environmental preservation has been often pitted against development agendas, where the latter dictate the 'rational management' of forest resources for economic and industrial expansion, on the one hand, and the assimilation of tribal populations into regimes of settled agricultural labour and plantation economies, on the other. The transformation sparked by that single generation of settlers has destroyed nearly all the natural forest cover of the region and has converted the former jungle lands into commercial plots of rubber, pepper, arecanut, tapioca, coconut and cashew. Freeman summarizes this as 'the wholesale destruction of the forests and their biota, the way of life of those who subsisted from these resources was simultaneously effaced, leaving only the testimony of survivors from the eldest generation as evidence of the forest life that previously exist'.²¹

Marx observed a distinction between the "forces of production" and the "relations of production" in the history of the mankind. The propositions constitute a paradigm somewhat parallel to that of human ecology, is that, 'In a capitalist society the operating mechanism of change lies with the changing composition of capital'. In

²¹ *Ibid.*, pp. 257-80.

that process the proportion of investment or constant capital grows at the expense of operating or variable capital out of which wages are paid. Concurrently the "relations of production" undergo major changes, including loss of ownership of tools by workers, increasing control of production by owners of capital, and a consequent sharpening in the delineation of social classes.

The adaptation proposition of ecology and Marx's first proposition exhibit similarities and differences. The former sets forth the central ecological problem, the interaction of population and environment. Environment as treated in ecology includes more than land form, climate, and physical resources. It comprises all that is external to and potentially influential on a population under observation, not excluding other social systems and the interactions they incite. In the history of civilization the relative importance of the biophysical and the social environments has undergone a significant change. An increasing amount of the biophysical has fallen under the determination of the social environment in what John Bennett (1976) has called the "ecological transition." Marx and human ecology conceive of change as operating in two temporal dimensions, one an *ontogenic* process of growth or system maturation, the other a *phylogenetic* or evolutionary process. In the growth process a dialectic or interaction between the "forces of production" and the "relations of production" in the course of a developmental phase moves a system toward an equilibrium state, in Marx's view. "No social order is ever destroyed," he said, "before all of the productive forces for which it is sufficient have been developed, and new superior relations of production never replace older ones before the material conditions for their existence have matured in the framework of the old society". Thus there is a movement toward an equilibrium state, Equilibrium occurs

when the forces of production are appropriate for and in harmony with the relations of production.²²

Bayly notes, 'knowledge of geography, resources and statistics, was accumulated by pre-colonial regimes in much the same way as future British conquerors'. Grove notes that 'Indian imperial officials inaugurated a modern forestry management system that spread from India to much of the world'. By 1936 the British Empire included a quarter of the land surface of the world and, of this, forests constituted one-fourth. In India, World War I was a major watershed in the history of forests and forestry. Between 1890 and 1920 the annual revenue of the Forest department tripled, and sale to timber contractors and commercial purchasing agents went up from 600,000 cubic feet in 1896-7 to 8.3 million cubic feet in 1915-16. Concurrently the technological sophistication of forestry also increased rapidly. Heavy machinery and chemicals came to replace improvised slides, cables and biotic controls. By 1927 the separation of the foresters into a separate technocratic bureaucracy was complete and their role was consolidated in law by the Indian Forest Act, 1927. Empire created the enabling conditions for vast public lands to be demarcated and set aside - providing the territorial basis for environmentalism. Holistic views of society and nature, spawned in part by Darwinian theories of adaptation, also fed fears of catastrophe where the collapse of one part of the system could bring the entire system down. Barton's extensive reading of popular and amateur scientific writing in England and Germany shows that theories of climate change caused by deforestation were circulating from the 1820s till 1920s. It is in this milieu of broad-based discussion in scientific journals, magazines, and popular books that the climate theory was disseminated throughout the nineteenth century. No one narrow path was responsible, neither the island deforestation cited by Grove nor the group of medical surgeons working for the East India company.

²² Amos H. Hawley, 'Human Ecological and Marxian Theories', *American Journal of Sociology*, Vol. 89, No. 4 (Jan., 1984), The University of Chicago Press, pp. 904-91

In *Nature's Government*, Drayton argues that new economies arose on the basis of the discovery of the raw materials for food, medicines, dyes and perfumes. Others depended on the importation and cultivation of favoured species. New cultures of ornament and order were equally consequences of new learning. Natural sciences and development ideologies articulated how nature might be governed in service of all this curiosity, desire, and the commerce it spawned. Botanising encountered improvement, to take up a theme already introduced by Arnold's *The Tropics and the Travelling Gaze*, and it was through service to horticulture and medical or scientific expertise that botanists found the friendship of the powerful as they joined in the enterprise of empire. The collaboration between scientific innovators and state agencies began in the late eighteenth century. The first was the survey of new resources. They popularised the ideal of the philosophical traveller who would survey, record and sample every aspect of the natural world. The interests of Nature most nakedly coincided with those of the nation. Development was a direct response, via territorial control, to the consolidation of empire in locations. By control of technology, commerce and taxation, development also consolidated empire in its proliferating commodities and their journeys. The science of plants had much to contribute to the profitability of colonies. One priority was the discovery of indigenous plants such as rubber trees that yielded tens of thousands of pounds sterling in exports annually since the 1880s. Drayton notes, 'men of science', particularly botanists, became important partners in administration, and beneficiaries of its growth ...the idea of governing Nature for cosmopolitan benefit found new vehicle. *Imperial Ecology* takes this line of inquiry into the convergence of development, imperialism and science to examine the process of transformation. Peder Anker's account of the British Empire Vegetation Committee is fascinating for it shows how by the early twentieth century the ecology and imperialism were heavily intertwined. The Handbook issued by the Committee, prepared by Arthur Tansley, in 1926 presented Britain as the owner of its colonial properties and

asserted that ecologists were needed to align empire's economy with the economy of nature.

'*Environmentality*' (Agarwal) makes the further important claim that the early nineteenth century accounts of forests, flora and fauna were descriptive and richly illustrated in the natural historical tradition. It is only in the late nineteenth century that accounts become more systematic, statistical and classificatory. Such numerical representations strengthened the technologies of government by facilitating four types of operations in forests: 1) forests were declared a domain fit for government; 2) forests became historical landscapes free of claims beyond indicators of yield and revenue; 3) concrete form and scope was given to obstacles like fire and disease in the making of normal forests; 4) comparison of regions became possible. Ranging from modern enchantments to the production of affective knowledge, and systems of government - of nature and people - that were imagined and implemented as part of colonial and postcolonial modernity, this presents a refreshing look at the relations between environment, science, empire and the human subject who is at the centre of all these grand processes and structures²³.

The western capitalist intervention virtually reshaped the social, ecological, and demographic characteristics of tropical regions. Global control of resources through western imperialism led to the exploitation of mineral, plant and animal resources of the Asian and African colonies which contributed to industrial growth in the metropolis.²⁴

²³ K. Sivaramakrishnan, 'Science, Environment and Empire History: Comparative Perspectives from Forests in Colonial India', *Environment and History*, Vol. 14, No. 1 (February 2008), White Horse Press, pp. 41-65

²⁴ Madhav Gadgil and Ramachandra Guha, *This Fissured Land: an Ecological History of India*, OUP, Newdelhi, p. 102

Objectives

1. To trace out the nature of colonial forest policies and its impact on the ecosystem and everyday human life in tribal Malabar in the 19th and early twentieth centuries.
2. To examine the impact of colonial intervention in the cultural patterns and world view of the tribal people.
3. To analyze the transformation of human ecology under colonial system and the means through which colonial policies brought about the alienation of tribals in their own natural habitats and cultural environment.
4. To identify the nature of tribal resistance to or adaptation of colonial modernity and to evaluate its impact on tribal culture and social system.

Hypotheses

- The tribal life was complex like that of the people of the ordinary terrain. The creation of state monopolies by colonial regimes over forest resources was primarily responsible for the marginalization and oppression of tribal people.
- Large scale inflow of plantation capital into the forest areas helped to transform tribal economy from its pre colonial to colonial state.
- Colonial intervention created centralized and monopolistic control over land and forest that resulted tribal economies an adjunct to the global world market.

Review of Sources

A systematic study has not been made on this subject. But there are several studies on tribal culture and social systems. The sources which i used for this study are mainly the primary sources available in the archives. I have visited the national archives New Delhi, Regional Archives Kozhikkode, state Archives of Tamilnadu, central library Jawaharlal Nehru University New Delhi, Academic Staff College Library, Jawaharlal Nehru University, New Delhi, Nehru Memorial Museum Library New Delhi, Central Library ISEC Bangaluru, CHMK Library University of Calicut, Appan Thamburan Library Thrissur, Sources from KIRTADS, Kozhikkode. The principal archival documents for the present study include census reports, administrative reports, forest administration reports, labour recruitment reports, chamber of commerce reports, plantation reports, Gazetteers, guides, manuals, correspondence files, criminal and judicial reports. These original records collected from various archives shed light on the study area in various forms. In addition newspapers, advertisements in British Empire Forestry Conference in London, maps also would provide study data.

There are plenty of published secondary works which are useful for direct or indirect information, comparative analysis or for conceptual framework. A *Descriptive Memoir of Malabar* by Lieutenants Ward and Conner one of the earliest work which gives the description of Malabar on its resources, people and the colonial interactions. This is significant work that shed light on the geographical and topographical knowledge and transformation of Malabar in nineteenth century. This work deals with the every aspect of Malabar such as its extent, boundary, administrative divisions, taluks and its physical features such as climate, rivers, sea coasts, mountains, hill ranges, cattle and wild animals, management of forest and statistical data of the timber trade etc.

Malabar Gazetteer by C.A.Innes gives the detailed report on Malabar in various realms. Chapters of this book are arranged with specific themes, heads and sub heads. It gives us the data of the early formation of the colonial Malabar to the early decades of the twentieth century developments and transitions. The fifth chapter described the forests of Malabar in detail by giving area wise description of the forests and its characteristics. This work vividly discusses the population, agriculture and irrigation, principal timber trees, castes and tribes, occupation, trade, means of communication, public health, land revenue administration, judicial justice, local self government, public health and history, demographic transition, details of taluks and development plantations etc.

Malabar Manual of William Logan also gives the detailed information on the transformation of Malabar through times. Logan's reports on revenue are very noticeable and important source for the analysis of the revenue policy shifts and its after effects. He also described the jungle tribes and servile castes of Malabar in his monumental works.

Some works include the doctoral dissertation of K.V. Kunhikrishnan's *The Forest Policy and Administration in British Malabar 1800-1947*, which gives a general information on the British forest policies. Richard Grove's work *Green Imperialism: colonial expansion, Tropical island Edens and the origin of Environmentalism, 1600-1860* gives the description of transformations and impacts of colonialism. *This Fissured Land* of R.Guha and M. Gadgil described the ecological impact of British colonialism. G. Cederlof and K.Sivaramakrishnan (ed.) *Ecological Nationalism: Nature, Livelihoods and Identities in South Asia* look into nationalism from an ecological perspective and emphasize the ecological factors. *Social Ecology* edited by R.Guha elaborates importance of ecology and society and its relation. *An Environmental History of the World* by Donald Hughes makes a study of the transformations of ecology in the world in different contexts. S.Ravi

Rajan's *Modernizing Nature: Forestry and Imperial Eco Development 1800-1950* and Mahesh Rangarajan's *Fencing the forests: conservation and ecological change in India's central province* analyses the colonial policies and its impacts. Edgar Thurston's *Castes and Tribes of Southern India, Vol I-VI* was a systematic and laborious study on tribal people. *Tribes of Kerala*, a work of A.A.D Louis was a typical ethnographic study. P.R.G Mathur's notable work entitled *Tribal Situation in Kerala* gives the detailed description on the life and culture of the tribes and their transformations. A.Ayyappan a well-known anthropologist made remarkable contribution to enrich the knowledge on tribes in different dimensions and even the minute aspects of the life. L.A.Krishna Iyer was another eminent scholar who extended studies on tribes with his in depth studies on the tribes especially the megaliths. C. Gopalan Nair in his Work *Malabar Series; Wynad its people and Tradition* had deeply portrayed the tribes and their life. *Making of the Colonial Timber Empire in Travancore: A Critique of Colonial Forest Policy* an unpublished PhD thesis submitted to Mahatma Gandhi university, Kottayam by Lekha Pillai gives much information and focuses on the colonial forest policies and timber emporium in Travancore and its consequences. Though it is a study on Travancore also penetrates to the general impacts of the colonialism in Malabar to a certain extent. *Environmental History and the Tribals of Modern India* a work of Velayudhan Saravanan unfolds the detailed description of the environmental impact of the colonialism in the Madras Presidency and its impact on the tribal life. . *Understanding Human Ecology Knowledge, Ethics and Politics* by Geetha Devi T.V provides much information on the transformation of the human ecology as an impact of the interaction between human social system and the rest of the eco system.

Proceedings, administrative reports, working plans, estate reports, indenture agreements etc have been examined. I used data which gathered from the KFRI Nilambur and the DFO in Nilambur for this investigation.

Methodology

The present study follows historical methodology supplemented by interdisciplinary perspectives. The entire narrative is centred on the concept of human ecology, i.e., impact of ecological changes on habitat system and everyday social practices of the humans. Marxian theory is a useful empirical frame as colonialism was intimately associated with forceful expansion of early forms of capitalist economy worldwide. Data on Colonial policy and administration were collected through archival research as various Archives in Kerala and outside provide a mine of information on the subject. Sociological and anthropological tools of fieldwork and interviews were widely conducted for tapping primary and reliable data from the tribes, for which methods of oral history research had been of great value.

Framework of the Study

The present study has seven chapters. The first chapter is an introduction which will look into the research problem, objectives, methodology etc. The second chapter deals with the colonial ecological intervention in general and its impact in particular. The third chapter locates the forest department as an agent of transformation of Malabar under the colonial system and forest economic management. The Fourth chapters look into the changes in the tribal Human ecology of Malabar. The fifth chapter analyses the transformation of the tribal life world of the Malabar with colonial engagements. It also looks into the impact of forest Acts. The sixth chapter exposes the socio-ecological impact of the colonizer in Malabar in an analytical order and the final chapter is the concluding part.

Arguments

1. The British systematically brought the land and territory of Malabar under the order of ecological imperialism.

2. It is clear that the capitalist and industrial development of Britain and its expansion throughout the world was realized through systematic exploitation of resources from its colonial territories including Malabar.
3. The forests of Malabar and the Timber Emporium was thoroughly organized and transformed to sustain British colonial interests.
4. The forests of Malabar became the symbol and sites of authority and power.
5. Introduction of scientific forestry and its agencies got transformed into the agencies of commercial forestry.
6. Introduction of plantations and its paraphernalia caused to develop ecological imperialism Malabar.
7. The tribes of Malabar were geographically and culturally alienated under colonialism and started living at the will of outsiders.
8. Colonial intrusion destroyed the traditional structure of tribal life and their resource base.

Relevance of the Study

The present research is relevant in that it tries to understand the socio-ecological and human ecological changes of colonial Malabar in general and tribal in particular. It is an attempt to use ecological analysis as a means of understanding human history of Malabar and to find out the relationship between the living and non living systems of the area. It also tries to evaluate the impact of changes caused by human agency in the natural environment and geography. Ecological science is used for understanding the history of the human species and its sequential changes in natural communities, as a historical science, it elaborates the human replacement of natural diversity with monoculture with introduction of plantations in the area. The advance of culture and technology has been crucial in releasing humans from

dependence on nature and providing them with the means to manage it. The study uses the methods of community ecology and the concepts of ecological process which analyze the interrelationship of humans with natural environment. An evaluation of ethnic mobilization and political autonomy and ecological and cultural devastations of Malabar comes under the study. It also reflects the mechanical relationship between culture, ecology and subsistence. The analysis on ecological changes and colonialism with a focus on the history of forestry, scientific forestry and industrial system with wage labour has been studied. The tribal revival and resource use patterns, scientific historical evidence and anthropological long term changes in ecology also have studied. How the intervention modified the surrounding environment and the adverse environmental effects.

Scope of the Study

In terms of the scope of the present study, it is limited to the region of Malabar, with Wynad and Nilambur as core areas, and tries to understand how the environmental alteration under British colonialism reconfigured the ecological equilibrium and life pattern of the people, especially tribes, through colonial forest policies, Forest Acts, and plantation economy (both government and private). Wynad and Nilambur are selected because these were areas where British forest and plantation policies had its most adverse impact and where tribes had a dense population. In chronological terms the study takes for analysis roughly a period of 150 years from 1800 to 1947. The period covers the entire span of British domination over Malabar, from its solid foundation to final termination. Finally, the study explores into topics and issues such as the transformation of ecology in Malabar, through colonial forest and timber policies and plantation economy, its impact on the environment and human ecology, and the radical transformation it brought about in the life of the tribal people of the land, especially large scale displacement, cultural change, introduction of money economy, etc.

Chapter II

Colonial Timber Policy

Malabar is divided into 18 *taluks* or Districts containing 2222 *deshoms* or villages, few or none of them are compact. By a census taken in 1827 the whole of the population amounted to 1022215-a large portion of the country to the eastward being mountains and hill overran with forests.¹ The forests in this province , a great deal of valuable Teak timbers is obtained about the Coteady pass, the Nilambur valley, Manar, and the eastern portions of the Nedungannad *Taluk* also a great quantity in the Palaghat. The timber is cut annually and floated down to Calicut, Beypore and Ponnany, the three principal depots. The range of mountains forming the ghats run almost parallel with the coast, here and there they branch westward and form large vallies and abreast of Calicut they recede to the eastward and forms the valley of Eraanad-the ghats of the north join the higher mountains on the western face of the Nilagiri and Kondah Mountains. The whole of this valley is dense forest, where the finest teak in Malabar is produced. There are many opulent merchants, Parsees from Bombay and other parts to the north, which trade in timber².

Malabar is famous for pepper which is grown in every district and exported in very large quantities. It is a considerable source of revenue in this province. Cardamoms grow spontaneously on the mountains and forest west of Mananthavady, the capital of Wayanad. This article has always been farmed and the produce of late years increased has induced individuals to offer very large sums of for the exclusive privilege collecting it. They had exported timber, pepper, cardamoms etc. the wild nature of the country dividing the provinces from

¹ Ward and Connor, *A Descriptive Memoir of Malabar*, Government of Kerala, 1995, p. 1

² *Ibid.*, p. 3

reluctance or unwillingness, or perhaps more arising from the ignorance of the people, who roam over these forests in quest of money, wax and edible roots, on the latter of which they subsist³.

The paradigm shift in the colonial political movements in the second half of the 19th century witnessed a great global ecological transformation. Many scientific agencies were introduced for controlling the environment of the colonies. In India the transfer of power from the company to the crown was a great epoch as far as Indian environmental history is concerned. The British government tightened its hold over Indian economy after the mutiny, resultant to which Indian forest and its management became one of the major areas that underwent drastic changes. The exploration of scientific tools and technologies resulted in locating, extracting, and marketing the timber products on a global scale. Colonial forest policies were enacted with this end in view which led to the large scale transformation of the native ecological world.

The waning of the oak forest in England and the subsequent pursuit for a similar quality timber led to the exploration of teak resulting in the efficacious expansion and consolidation of the empire. Pursuit to this they sent Enquiry Commissions all over India finding the quantity of teak and other hardwood and soft wood timbers. These commissions consisted of natural scientists, surgeons, military officials etc. a large number of doctors both physicians and surgeons were employed in the service of the company as full-fledged professionals and scientists in the first half of the 18th century due to the imperative requirements to know the flora, fauna, geography and geology which were hitherto unfamiliar, for both commercial purposes and to counter environmental and health hazards. The travelogues, reports and theories of these officials provided a plethora of information about the geography, the nature and the wild etc. of the colonies. This information was

³ *Ibid.*

transmitted all over the world through conferences, pamphlets, and publications. They became the sites of power of the Colonizer. The knowledge of the economic and commercial viability for the sylvan resources of India was clearly tapped out through surveys of the forests and this was a major motive behind the reservation of Indian Forest⁴.

In 1800, the exclusive right of forest administration of Malabar was given to the Bombay Government, which enabled the East India Company (EIC) to establish their monopoly over the Malabar forests. In 1804, Captain John Johnson, Military Engineer in the Bombay Government was appointed Surveyor to report on the timber resources of the forests of the Malabar. The British officer who traversed these forests found teak trees in abundance in all the jungles near the Western Ghats. His report described the utility of the valuable species of timber required for ship building such as building masts, yards, docks, and all the upper works of the largest ship. The names of some of these species in Malabar were *bintek*, *beeety* or *Blackwood*, *poon*, *irumba* or ironwood (to be used to knees or ribs and durable under water), *Maur* tree, species of wild palm, *Anjily* or Wild Jackwood (all very durable and of sufficient dimension for building frigate ship).

More surveys were carried out which also identified the most important commodity required for ship building, that is the straight timber in Malabar. The Straight timber was classified into three varieties- the first sort, second sort and the third sort timber. The first sort of timber, which was superior timber measured not less than 40 feet in length and not less than 8 candies in solid content and varied in age from 60 to 100 years. The second sort of timber was not less than 30 feet in length and not less than 3½ candies in solid content, varied in age from 25 to 60 years, and the third sort measured not less than 15 feet in length from 1 to 2½

⁴ Lekha Pillai, *Making of the Colonial Timber Empire in Travancore: A Critique of Colonial Forest Policy*, Unpublished Ph D thesis Submitted to the Mahatma Gandhi university, Kottayam, 2017, p. 4

candies in solid content, varied in age from 1 to 25 years. To ensure control over these forests, the British government passed legislation on 25 April 1806 according to which all private extraction of wood became an offence punishable by law. On 10 November 1806, Captain Joseph Watson was appointed by the Government of Madras as 'Conservator of Forests', the first Conservator of Forests in India. He was given the charge to conserve teak and other timber resources of the forests of Malabar and Cañara. In 1807, a proclamation was issued which authorized him to punish any person who was found violating the rules put forth by the government with regard to forests. In the course of time, he brought the entire forests of Malabar under his control. As demand for timber increased, a need arose to exploit such private forests and to regulate and restrict access to these forests. The government persuaded the proprietors to relinquish their claim over the land and these proprietors were compensated for each tree felled by them.

To procure a regular supply of timber from Malabar to the Bombay dockyard, the East India Company entered into a contract with the merchants. Some of the prominent contractors in the early nineteenth century, who were based in Bombay as well as Malabar, were as follows: Bayon Chacooty, Chacora Moussa (both in Malabar). Some of the private commercial firms, the so called European Agency Houses who were involved in the timber trade were Alexander Adamson, Bruce Fawcett and Company, Forbes and Company, Ship Sharks Harding Rivett and Wilkinson, Souza (Miguel de Lewis), James Tate, Taylor and Agnew." These agency houses acted as a vital link between the government and the timber merchants in providing timber in large quantities especially when the local rulers or merchants were unable to provide the required quantity for the construction of ships. The East India Company, however, monopolized the exclusive rights of timber trade. Private contractors and agency houses were permitted to carry out business, provided they possessed the Company's license. The timber was purchased by the

brokers for the Bombay merchants. To transport timber from the jungles to the river edge, elephants were preferred in Malabar to laborers, who were reluctant to go in high jungles and labor was very expensive. These timbers were exported to Bombay by botellas.⁵

Table 2.1

Table showing the details of the exports of timbers from Calicut.1828-29⁶

Articles	Quantity	Weight			Value			Duty		
	Ks.	Cs	Mds	Ibs	Rs	Qr	Rs	Rs	Qr	Rs
Teakwood timber	8706	23	9	4½	168470	2	47¼	4031	3	84
Blackwood timber	433	16	4	12½	3073	3	73¾	41½	2	10½
Ebonywood timber	79	5	3	10½	1145	3	87¾	46¾	2	33¾
Poon spars timber	97	5	3	10¾	1953	0	47¼	104	1	7½
Junglewood timber	45	14	15	12	124	1	95¼	1¾	3	81¾
Teakwood planks	...	6742271	11	2¾	22105	3	20	9751	3	60¾
Jackwood planks	...	30867	4	5	6629	3	79¼	237	0	29
Ebonywood planks	....	139	5	8	36	0	17½	1¼	1	13¼
Junglewood planks	...	30641	11	15	2206	2	27¾	121	3	90½
Blackwood planks	...	5329	7	7	1419	1	58¼	55	2	1¼
Cedarwood planks	....	234	6	0	35	0	70	2	3	25½

⁵ Louiza Rodrigues., 'Commercialization of Forests, Timber extraction and Deforestation of Malabar: Early Nineteenth Century', *Proceedings of the Indian History Congress*, Vol. 73 (2012), pp. 809-819.

⁶ Ward and connor., *op.cit.*, p. 19

Timber Measurement and Prices

The prices of timber generally depended upon the quality, the species to which it belonged and its thickness. Prices of timber were also dependent on the rainfall as scarcity of rains obstructed the transportation of timber, resulting in increase in prices. Timber was measured by the candy or covit - 16 moganies make 1 borel - 24 borels to 1 koll; 24 kolls 1 covit or candy. (Borrel is a name for the Malabar inch; the koll of 24 borreis answers to about 28½ English inches). Planks were measured by the guz, or of 28 English inches, 24 borels in length, 12 borels in breadth and 1 borel in thickness, made a guz⁷.

The forest history of our country could be better understood by knowing the forest of a particular locality. It is evident that forest of these places underwent drastic changes and that they carry a strong colonial legacy. The seeds of the British Indian forest act were disseminated to all provinces.

The triumph of the British Empire was their spirit of research and enquiry. This spirit of enquiry together with sophisticated technologies constituted the axis of the empire. Their constant pursuits and explorations led to innovative knowledge and created novel developmental ideologies. These developmental and scientific ideologies based on natural sciences, especially botany were the main paradigms that decided the future of the Indian forests including Malabar. Carl Linnaeus, a Swedish botanist and the father of taxonomy, considered botany as an economic science to which he articulated two basic economic responsibilities. First is the survey of new resources for which he familiarized in Europe the idyllic of the philosophical traveler who would examine record and illustrate any aspect of the natural world. Second, the adaptation of plants which added to the nation's wealth and power was made the responsibility of the botanists. Nathaniel Wallich, one of

⁷ Louiza Rodrigues., *op.cit.*

the naturalists, took advantage from the botanical bonanza by undertaking a survey of teak trees in British Burma from 1825 to 1827. Later this provided the foundation stone for the forest conservancy in India. Wallich had a vast collection of plant specimens from India which made him an influential figure in the commodification of Indian plant-life.

The gazetteers of Innes, Memoirs of Ward and Connor, survey reports etc have had portrayed the entire geography and the forest wealth through the gaze and their documentation.

The Growth of Wood Extraction and Timber Trade

The situation changed in the nineteenth century when the region was integrated into the colonial economy and the demand for timber increased with the increase in warships. Once potential timber-producing areas were identified and made accessible, timber extraction grew rapidly. Naval contracts were signed between the EIC and the timber merchants. In the period 1800 to 1806, on an average, the following were the prices at which the Bombay Government was supplied with timber from Malabar. The prices of Calicut timber of 1st sort was 14-16 per candy of 40-50 ft in length, the 2nd sort was 10-12 per candy with 35-40ft long, and the 3rd sort was Rs. 9-10 with 22-35 ft in length. The plank from 1 to 5 borels thick was at a cost of Rs. 30 per 100 guz. To ensure timber at lower rates, the Bombay government decided to annihilate private trade and grant monopoly rights to a leading timber merchant of the Malabar. Such rights were granted to Chovakkaran Moussa⁸.

Climate was a central concern of European existence in India. Dr. Alexander Gibson, a trained botanist, surgeon was one of the foremost among the Medical elite in developing such mental perception of desiccationism which formed the basis for

⁸ *Ibid.*

him to propose a comprehensive plan for the conservation of forest. British were largely responsible for deforesting this region and British merchants were active in teak marketing. By 1800 Bombay had become the largest port on India's west coast thereby expanding Bombay's market to the dense forest in India. The chief beneficiaries were small-scale Indian timber merchants most of whom were based in Bombay. By mid nineteenth century commercial contractors became an important link between towns and forests and between government and villagers. These contractors ruthlessly felled the trees and escalated the deforestation process. In the first half of the nineteenth century one of the prime objective, therefore of the Anglo Indian medical practioners' was to identify localities suitable for European habitation, hence medical topography gained importance. Gibson's third objective was a forestation especially teak plantation. He emulated Conolly's (the acting collector of Malabar) method in Malabar in raising young teak plantation. Moreover, from the seeds supplied by Dr. Thompson from the Calcutta Botanical garden, and Dr. Gibson, in 1858 raised numerous plants which increased variety of forest trees. Quite optimistic, he hoped the garden of Hewra to be a centre of Botanical gardens, so important even to the indigenous people of India. He also contributed greatly to the growth of Mahgony trees at Hewra and at Dapooree. The seeds of Sag wood and the tanning casalpinia of South America - 'Davadivd' supplied by Dr. Wallich, the Director of the Botanical garden at Calcutta were developed into trees by Gibson⁹.

Plantations

The opening of plantations was necessarily the outcome of an emerging market economy of the time. 'Production for market' became the watchword which inevitably led to the artificial regeneration of forest species¹⁰. The plantation of

⁹ Louiza Rodrigue, 'Dr. Alexander Gibson and the Emergence of Conservationism and Desiccationism in Bombay: 1838 to 1860, ' *Proceedings of the Indian History Congress*, Vol. 67 (2006-2007), p. 661

¹⁰ Lekha Pillai, *op.cit.*, p. 50

certain marketable species led to a kind of plant imperialism in Malabar by eliminating all sorts of least marketable ones. In certain places indigenous species also got completely eliminated. The timber plantations were a part of wider state agenda for getting an uninterrupted supply of timber for the market. A large scale transformation happened in the forest space of Malabar with opening of these plantations. With this the meaning of forest was completely changed and it was tamed to meet the increasing market demands. The scientific process of taming and training of the entire forest was to solve the anxieties of the timber industries and the British capital world in the colonial period.

The history of the official control and management of Indian forests is closely linked with the expansion of the British, its strategic imperialism economic and administrative requirements and consequent policy shifts. Malabar was one great wooded region that attracted the attention of the British from the very inception of colonial domination. The force and relations of production and the belief systems which validate and legitimize interactions between man and nature and within human societies, are crucial in determining the pace and volume of resource extraction in any given historical context. The story of the genesis and growth of forest management in India during the colonial period can help understand the changing attitudes of the British towards the woods and the people who used them. During the early days of their political dominion in India their attention was mainly concentrated on the south western ghat forests. Their own military history and the agricultural revolution often disposed them to a negative view of woodlands.

Timber plantations can be defined as the artificial regeneration of trees, of marketable value, on a large tract of land. The rapid exploitation of hardwood and softwood timbers because of their commercial viability had resulted in the exhaustion of the timber resources across the world. This led the British to the conclusion that it was not safe to permanently depend on the supplies from the

virgin forests. An earlier notion that forest resources were inexhaustible was completely rooted out and the idea of introducing plantations of timber was initiated. The main purpose of this was to acquire a systematic annual yield for commerce. A mature plantation would provide an increased yield as compared to natural forest. The production and trade of timber was entirely drawn along the lines of scientific forestry. S.J Duly in his book *Timber and Timber Products* mentioned that the British aware of the need to safeguard the future by “clearly marking out and dedicating the remaining virgin forests to the systematic production of timber under the care of trained scientific men”¹¹.

Making of modern forest of Malabar was initiated through the gaze and superior science of the British. The system of knowledge making instigated by the empire made the woodlands of the Malabar perceptible to both the natives and the Europeans. This visibility together with the pace of industrial capitalism transformed the *kadu* of Malabar, which was a treasure trove of flora fauna, into ‘modern forest’ which was an abode of marketable timber. The forest policy legislations were introduced to gain access to these forests to meet the increasing demands of the timber for market. It was for this purpose that reservation of forests tracts and the subsequent laws and legislations were introduced. Scientific forestry was introduced for providing a methodical base for exploitation of forest resources.

The mechanism for acting with the forest policy was started in the beginning of the 19th century. The colonial policies along with its administrative machineries and sophisticated technologies entered into the area. The administration and the introduction of policies at a glance highlighted the political domination, but the main target of the colonizer was the subjugation of the natural resources of Malabar especially the teak timber. Pursuant to that, unnoticeable attacks were made on the

¹¹ *Ibid.*

forests in the form of series of acts and proclamations. These acts were viewed as parts of the better management of the state and the conservation of its valuable forests. Colonial forest policies were introduced in the name of scientific forestry. In reality, they actually proved to be cancerous to the state forest resulting in the silent disappearance of the wealthy forests of Malabar and thereby its rich biodiversity.

The industrial revolution and the subsequent process of colonialism led to the commodification of nature especially the forest. Nature and forest were the worst hit by the colonial policies.

By the time the English had imposed their domination over Malabar, the woods of English had become a managed and controlled landscape rather than untamed forest. The forest policy of eighteenth century Britain was determined primarily by the requirements of oak for her navy and merchant marine. When it was disappeared towards the end of the eighteenth century and to produce timber through import was hardly a problem at the beginning. Consequently, the early days of British rule in India were characterized by indifference towards forest. Moreover the East India Company officials knew little about tropical forests. In the search for alternative sources for ship timber, search was also made for a species which might provide an alternative to oak. The assistance of the East India Company was enlisted for this purpose. The India teak (Malabar teak) was found to be a 'splendid candidate' to substitute the oak. In teak an admirable substitute was found. Consequently the first official step by the colonial state towards forest control was an order issued by the Bengal Bombay Joint Commission prohibiting the telling of teak below 21 inches in girth in Malabar forests. The first attempt to organize timber in India also took place in Malabar in 1796 when a timber syndicate was established there by Mr. Machnochie of the Medical services. The aim of the syndicate was to

ensure a steady supply of first class teak for the British Navy. The syndicate did not succeed and several agencies tried by fits and starts, but none could ensure the steady supply of timber to the Navy. The work of such agencies, however, resulted in the ruin of valuable forests, especially in the vicinity of streams." The teak from Malabar was to play a crucial, role in maintaining England's naval strength during her hour of peril. The Bombay dockyard was in the forefront of ship building. Suitable timber was also taken to England. An indication of the escalating demand for teak is provided by the phenomenal increase in the tonnage of British shipping. Her merchant marine increased from 1,278,000 tons in 1788 to 49,37,000 tons in 1860. The first attempt at monopoly of teak trade by the Company was made following the report of the forest Committee. A general proclamation declared that the royalty right in teak trees claimed by former rulers was vested with the Company, and prohibited all further unauthorized felling of such trees. Under pressure from the home government and with regard to the future strength of the King's Navy it was decided to appoint a special officer with a view to the preservation and improved production of teak and other timber for ship building.¹²

Forest Policy: Definition

A forest policy is aimed at bringing the forest under the frame work of certain rules and regulations. In other words it is a regulation on forest resources and a restriction on the people's rights over it. According to William B. Greeley "the forest policy of any country is an outgrowth of the unremitting pressure of people upon natural resources". A closer look reveals that the colonial forest policies were, in reality, born out of an encounter between a traditionally agriculture nation and an

¹² K. V. Kunhikrishnan., 'The Colonial State and India's Forests: Strategic Requirements and Policy Shifts', *Proceedings of the Indian History Congress* Vol. 59 (1998), pp. 496-505

industrially highly superior capitalist nation. Colonial forest policies were those regulations introduced by the colonial government over the Indian forests during their rule in the subcontinent. Identical to all other colonial policies, the forest policies also aimed at benefitting the British at the expense of the Indians. It was intended for the consolidation and assertion of government rights over the forests of India. Their gaze fell on Indian teak, the most resilient of ship building timbers, with waning of the oak forest in England.

During the period of monopoly in teak trade an unusual administrative step was taken by the government. By a proclamation dated 3rd July 1805 the administration of the Malabar forests was taken away from the Madras government and transferred to the Bombay government. In 1822 a year before the abolition of the monopoly trade in teak, the administration of Malabar forests was transferred back to Madras. All these measures, intended to ensure a sustained supply of teak to the dockyards, clearly reflect the primacy enjoyed by teak in the concern of the early colonial administrators. These were confined to arrangements for felling the trees and their transport from the forests to various spots on the West Coast, to be taken to the dockyards. Despite the lifting of monopoly the need to ensure a steady supply of this essential raw material by preventing its ultimate drying up remained a colonial imperative. This necessitated control and conservation. One way of overcoming the difficulty was through the artificial regeneration of the favored species, teak. The resulted the formation of teak plantations in Malabar, which practice was soon taken up by the princely of Cochin and Travancore.¹³

¹³ *Ibid.*

Table 2:2

Table showing the Chronology of the Colonial Forest policies in the first colonial phase¹⁴ (1796-1850)

Date	Event	Personality/Feature
1796	British Occupation of Malabar	Teak still regarded as private
1806	First Conservator of Forest for Malabar-Travancore	Captain Watson
1820s	Plantation against deforestation in Bengal	Nathaniel Wallich, Director Calcutta Botanical Gardens & Member, The Asiatic Society of Bengal.
1823	Conservation in Malabar abolished.	Opposition of Teak merchants.
1831-47	Steps were initiated for change	Dr. Gibson appointed by Bombay Government as Conservator of Forests in 1847.
1847-50	Information regarding the effect productiveness of India	Required by the Court of Directors and the Governor-General of India.

Table 2:3

Table showing the Chronology of the colonial forest policies in the second colonial phase (1850s-1880s)

Date	Event	Personality/Feature
1852	Annexation of Pegu	Dr. Mc Clelland appointed superintend.
1855	Memorandum of the GOI on forest conservancy	Lord Dalhousie
1856	Superintendent of forests in Pegu	Dietrich Brandis
1856	Conservation of forests in Madras	Dr. Cleghorn
1864	Inspector general of forests in India	Dietrich Brandis
1865	Forest Act of 1865	First forest legislation in India
1878	Forest Act VII of 1865	Reserved & protected forests in all areas except Madras.
1882	Madras Forest Act of 1882	Reserved forests, Reserved lands and open Forests.

¹⁴ Arun Bandopadhyay, 'The Colonial Legacy of Forest Policies in India', *Social Scientist*, Vol. 38, No. 1/2 (Jan. - Feb., 2010), pp. 53-76.

Table 2:4

Table showing the Chronology of the colonial forest policies in the third colonial phase¹⁵ (1894-1947)

Date	Event	Personality/Feature
1894	Forest policy of 1894 with a definite for serving the agriculture interests directly	Dr. Voclecker.
1906	Imperial forest research institute Dehra dun	Beginning of forest working plan under IG of Forests.
1909	Royal Commission on decentralization	Beginning of separate working plan under a conservator.
1921-22	Forests became a "transferred" subject	Indianisation of IFS begins
1935	Forests became entirely the concern of the Provinces	IGF was to concern only with of issues of Forestry.
1939-47	War-time and Post-War Policies	excessive Felling of Private Forests and their control

Beginning of Legislations in India

Timber exploitation existed even before the advent of the British in India. Respective state governments had exploited timber for various purposes and it had been made a state monopoly. The local population had the right over land to utilize –non reserved produce and a fee collection was accorded. Nevertheless, the massive destruction of forest materialized with the arrival of the British in India. The wealth of the forest and above all the market value represented by certain trees on the west coast, did not escape the notice of the pioneer British who settled in South India. Stebbing noted initially attempts were made to form a timber syndicate in Malabar in 1796. Private extraction of wood was made an offence punishable by law on 25th April 1806. Captain Watson was appointed the Conservator of forest, for both the forests of Malabar and Travancore on 10th November 1806. He soon established a timber monopoly throughout Malabar and Travancore. During the time, the court of

¹⁵ *Ibid.*

directors was concerned only about the supply of timber. The growth of forest exploitation gave rise to various obstacles and problems which led to the need of regulation and restriction. The repressive measures adopted by him resulted in the abolition of conservatorship in 1823.

The consequence of all these processes and measures-whether uncontrolled felling and trading or controlled and monopolistic trade practice or extension of teak plantations at the expense of natural forests- the vast forested hinterland of the region had massively retreated by the end of the colonial period. Thus, it is imperative to look at the process of deforestation of India within the framework of the colonial system, which was an elaborate structure of resource extraction and allocation. Colonialism also determined who was to have access to nature's wealth and what pattern the biotic themselves would ultimately take. In the wake of the ever-increasing demand for teak, Malabar, as a colony, was integrated into the British capitalist production processes. The region experienced intense exploitative extraction of teak forests, which in turn led to the administrative control of the forests and the beginning of institutionalized forest management in India. The idea of forest conservation was incorporated as a serious imperial agenda as a consequence of the unrest over the possibility of the ultimate drying up of the crucial teak supply. There is a significant contrast between the pre-colonial regimes in India and the British regime in terms of the impact on forestland. The British gave a sharper edge to the process of deforestation and expansion of the agrarian frontiers. Then the nineteenth century saw their interests transcend beyond the mere clearance of the trees. This shift from a predatory interest to a notion of regulated use of the woodlands was caused by the strategic and economic imperatives of the colonial empire.

A rethinking was made on the colonial usage of forest and for reviving the conservatorship due to the alarming pace of deforestation that took place during the

early decades of the 19th century. The adverse effect of deforestation on the ecology produced serious debates and discussions during the period. As a result the post of conservator was revived and Dr. Gibson was appointed the first regular Conservator of forest in the Bombay presidency. He reported the silting up of rivers in certain parts of the country due to large scale destruction of forests. In 1852 the British annexed the Pegu resulted the commencement of forestry practices in India. Forth with the annexation all forest were declared to be government property. In 1855, Lord Dalhousie issued the charter of the Indian Forest after studying the reports of McClelland. It outlined the forest conservation plan for the whole of India.

The rules that defined the authority of the conservator, and the management and preservation of forests in the provinces of Malabar and Canara were set forth by the Bombay government in August 1815. The two objectives of these rules were to preserve the imperial from waste and uphold the sovereign rights of the British government over timber resources¹⁶.

Before the establishment of British rule in India, the inhabitants of India relied upon forest resources as an essential element for their survival. With the advent of the British in India, forests of India became a vital necessity for the State. The British Government commercialized the forests by establishing their monopoly over Teak which eventually led the forest officers, timber merchants and contractors deep into the forests of India. In western India, timber was supplied primarily from Malabar to Bombay to meet the timber requirements of the British. Moreover, the nature of timber trade was such that it led to trans-ecological exchanges, which further decimated the forests of India as timber was also shipped to the Persian Gulf and Arabia. The ban on shifting cultivation coincided with the period when coffee

¹⁶ Marlene Buchy, *Teak and Areacanut colonial state, Forest and people in the Western Ghats(South India) 1800-1947*, Institute Francais De Pondichery, 1996, pp. 16-18

plantations were being promoted by the British in the South. This prohibition was intended to procure labour force for plantations.

To improve and conserve the forests and also to strengthen the commercial prospects of the forestlands, the forests brought under the control of the forest department needed to be converted into a sustainable forestry. A number of recent works informs us about the complex nature of the entry of western knowledge, science in particular and the ways through which it was applied to the Indian forests. These seminal works point out how science fostered the conservation of the forest coverage and how it helped to improve the commercial scope of timber and its sustainability. The colonial foresters heavily relied on these corpuses of western scientific knowledge about how to go ahead with the management of forests. Various scientific experiments were conducted inside the forests to attain this end. The history of plantation was a result of colonial anxiety for increased revenue earnings. This resulted in redesigning the character of the forest landscape of western India. Thus, plantation became an essential component of forest management. As the colonial state was reluctant to spend its revenues on forest management, plantations were started for commercial purpose, which could earn them revenues. It would otherwise have been difficult to manage the department without enough revenue resources.

As climate became an important factor for European existence, one of the prime objectives of the Anglo- Indian medical practitioners in the first half of the nineteenth century was to identify localities suitable for European habitation. Hence medical topography gained importance. The Forest conservancy measures introduced by the British Government such as plantations, modified' and shaped the forests according to their needs. Forests became more of a commercial commodity than a matter of rich biodiversity to be protected from various unwanted factors although it helped in the better regeneration of a few specific timbers such as teak.

Such monoculture plantations altered the landscape and affected the biodiversity of Malabar¹⁷.

The Imperial Forest Department was formed in 1864 and the foundations of scientific forestry in India were laid down with the appointment of Dietrich Brandis as the first Inspector General of Forests in India. However, during the introduction of scientific forestry in India the European scientific practices were to be incompatible with the diverse environmental conditions of India. This led to the creation of a distinct branch of scientific forestry by blending the European forestry experience with India environmental conditions. One of the most important features of this branch of forestry was that it ignored ecological and social realities in favor of fast growing pure tree stand forests and plantations, managed with statistical tables in order to satisfy the economic objective set by the government.

Brandis introduced measures for the protection and improvement of forests. He introduced a system of valuation survey, which he named as the Linear Survey. Legal mechanisms were also forged to assert and safe guard state control over forests. The Indian Forest Act of 1865 was the first attempt at asserting state monopoly. “The process of alienating the forest dwellers from the forests was given legitimacy by the India forest act and the administrative process was unleashed on the forest regions after its inception. Villages were established in deep forest regions to facilitate the labor needs in extracting timber. The Forest Act, the Forest Working Plans, the survey and settlement operations in the forest regions were all aimed at limiting the rights of the people and transferring ownership of forest to the state.” Alienation from the forest signified a mode of life in which, circumstances distorted

¹⁷ Louiza Rodrigues, ‘Ecological Crisis and Colonial Response: Nineteenth Century Western India’, *Proceedings of the Indian History Congress*, Vol. 72, PART-I (2011), pp. 575-586

the innate qualities of human beings, compelling them to act in a self –destructive fashion¹⁸.

Indian Forest Act of 1865

In establishing reserve forests Britain adopted the guidelines already in use in France and Germany. The first foresters in India were Germans, not British. The British who heedlessly considered the value of forests in their native land emerged as the pioneer in the forest policy legislations in India. Based on the German forestry practices they passed the First Indian Forest Act in 1865. The fact that the legislations carried out in India was born out of the utmost necessity of bringing the vast forest resources of the country under their subjugation to meet their growing industrial requirements.

The first attempt of the forest legislation was the passing of Indian Forest Act of 1865. The aim was to create forest reservations to meet national and regional long-term needs for resources such as water supply, soil conservation, etc. The merits of a particular block of forests chosen for reservation were determined by a revenue officer, not by a forester. The revenue officer collected revenue for the government and in the nineteenth century the main source of revenue was agricultural land. Presumably, the interests of agriculturists were amply safe guarded during the creation of the reserve forests. Contrary to the process of reservation, which was time-consuming and required settlement of rights and privileges, the revenue officer could grant land to an individual by a stroke of his pen and thus cancel previous community privileges. In the hill ranges, 50 percent of the forest area was generally excluded from reservation, and in the plains the non reserved areas set aside as village commons were about three times as large as the reservation. The reserved areas excluded individual-privilege areas consisting of

¹⁸ Lekha pillai, *op.cit.*, p. 102

blocks of forests, allocated as extensions to agricultural fields. In tribal areas (forest-dwelling hunter-gatherer belts) the needs of the tribes were identified and provided for within the reserve forests. Decisions on rights and privileges took time. Between 1865 and 1900, 7.7 percent of the land area of the country had been confirmed as reserved forests. At that time this area would have accounted for approximately 16-20 percent of the total forest area. The act invested the state government with the authority to declare any land to enclose with trees or brushwood as state forest, and to make rules concerning the administration of the same. It provided penalties for the breach of provisions or infringing rules. It also prescribed rules for the arrest of offenders. An attempt was made to regulate the collection of forest people were restrained by law. For effective control, the state would henceforth have the power to protect any forest in anticipation of its demarcation and management¹⁹.

One of the major criticisms regarding the forest act was that it was mainly passed to expedite the procurement of the forest tracts that were assigned for railway supplies. The main agenda of the state was to establish control over those forests which it immediately required. A large debate emerged during the period regarding the state control over forest. The annexationist school headed by Baden Powell argued for complete control by the state over the forests. The Populist school on the other hand rejected any kind of interference and argued that the tribals and peasants must be given supreme rights over the forest. The moderate voice of the Pragmatic school headed by Dietrich Brandis advocated that ecologically sensitive and strategically valuable forests should be brought under state school.

¹⁹ S. Shyamsunder and S. Parameswarappa, 'Forestry in India: The Forester's View', *Springer on behalf of Royal Swedish Academy of Science, Ambio*, Vol. 16. No. 6(1987), pp. 332-337

The Indian Forest Act of 1878

The laws for legislation and conservation reached its zenith in 1878 when the second Indian Forest Act was passed. Under this act, the forest area was divided into three categories: a) Reserved Forests b) Protected Forests c) Village Forest. Reserved forest consists of the most economically valuable trees, and the local population was denied access to them. The Forest Settlement Officer was given the charge of demarcation of the forest. Thus, the Indian Forest Act of 1878 was principally concerned with clearly defining the powers of the state, and the officers of the forest department who were invested with absolute authority, free of any judicial proceedings.²⁰

Forest Policy of 1894

The Government of India declared the first forest policy on 19th October 1894 which constituted the base for the ensuing forest policies of India. Through this policy the government of India was guided by the following objectives.²¹

1. The main object of the management of forest is to promote the general well-being of the country.
2. The maintenance of adequate forest is dictated primarily for the preservation of climatic and physical conditions of the country subject to these conditions.
3. Permanent cultivation should come before forestry.
4. The satisfaction of the needs of the local population should over ride all consideration of revenue.

²⁰ Marlene Buchy, *op.cit.*, pp. 24-26.

²¹ Lekha pillai, *op.cit.*, pp. 104-105

5. After the fulfillment of the above conditions, the realization of maximum revenue should be the guiding factor.

The state forests were classified with their primary function as follows:

1. Forests, the preservation of which was essential on climatic or physical grounds.
2. Forests that afforded a supply of valuable timbers for commercial purposes.
3. Minor forests.
4. Pasture lands.

Scientific Forestry

The British gained access to the timber wealth of the provinces that came under their control. As the British authorities gradually assumed the rights of the rulers, they claimed the rights to their forest lands. These lands formed the basis of the British system of Imperial Forests. For centuries the trees of the more valuable species were classed as "royal trees" by the local rulers and were reserved for their use. Other trees were available for the use of the local people, although nominally the property of the ruler. These lands formed the basis of the British system of Imperial Forest. On the constructive side the committee pointed out that if the forests were protected and handled conservatively, a valuable property could be built up. An order was issued establishing that the royalty right to teak trees formerly held by local princes was henceforth to be vested in the East India Company as the representative of the British Crown. The order prohibited the unauthorized felling of teak trees. The histories of the early development of forest conservation in India were the heads of the various Botanical Gardens established in Calcutta, Bombay, and Madras. These contributed vastly to the store of knowledge concerning commercially important plant products and added to the fundamental scientific

knowledge involved in the growing of trees and other flora. They brought the trained scientists' viewpoint to bear on the timber supply problem. The rich teak forests of this area were utilized under a commercial licensing system by which a private individual could cut government timber by paying a duty of 10 to 15 percent of the value of the timber at the export point. Individuals were issued permits to cut timber in localities from which all other cutters were excluded. Because the logs were ordinarily floated to the saw mills, first cuttings were naturally along river banks, but as the number of operators increased, cutting gradually moved in land. In un surveyed country the cutting boundaries for individual permits were often vague. As a result, permittees frequently encroached upon the lands of their neighboring competitors to get choice stands of timber. Resulting disputes, often leading to court action, caused great trouble. As time passed, permits tended to be viewed as defining vested rights, contributing to a de facto timber monopoly on the part of the first operators to enter an area. Without adequate supervision and controls the valuable teak forests of the two southern provinces of Burma were largely depleted during the ensuing two or three decades²². Thus, they started the systematic management of the forest with scientific knowledge, the application of the western science for the enhancement of the revenue and making the adaptation of the land and the people into a new order of life.

Scientific forestry can be described as the systematic planning and execution of forestry activities with the aim of sustained yield. A sustained yield is a perpetual periodic out turn of timber, fuel, bamboos etc., resulting from a systematic treatment of the forest crop. A sustained yield will be obtained from forest which is so worked that it will continuously produce crops of wood, each portion as it is cleared being restocked within a reasonable time and young wood which sprang up being properly

²² Robert K. Winters, 'Forestry Beginnings in India, ' *Journal of Forest History*, Vol. 19, No. 2 (Apr., 1975), Oxford University Press on behalf of Forest History Society and American Society for Environmental History, pp. 82-90.

tendered. The most important aspect of the scientific forestry was the preparation of working plan.

Agencies of Scientific Forestry

There were a number of agencies worked for safeguard the colonial aspirations and means of exploitation. These agencies were

a) Working Plan and Working Schemes

These were the systematic and important agency of the scientific forestry and forest management. It was outlined for a fixed number of years. According to the working plan, Reserved Forest was divided into a number of working circles, ie, felling series with an accurate data of its extent. It explains the number of trees existing in each working Circles and method of its extraction. According to the administration report, “Forest exploitation is regulated by working plans or working schemes so as to bring all important forests under systematic management, to ensure continuity of treatment and orderly and economic working on an organized basis as well as to ensure scientific regeneration designed in the interests of posterity.” Working plans are Forest Regulations that prescribe the application of certain cultural rules and the execution of certain works in order to produce a given desired result.

b) Forest Department

The British had well chalked out plans for the functioning of scientific forestry. Several agencies played their part of their successful working. The first step was the bureaucratization of the forest by establishing a Forest Department. For better administration, forests were divided into Divisions, Ranges, and Beats. Separate officers were appointed for respective divisions. The management of the forest required a huge number of staff in each of the divisions ranging from the

Conservator to the Forest Watcher. Many of the programs of the department ended up the failure because of the inexperience of the staffs. Thus they started appointing the trained officers and staffs.

c) Forest School

The training of forest staff constituted an important aspect of the colonial forest policy. The first step towards this was the formation of a Forest School, the Madras Forest Department. Cleghorn suggested that the Madras government create a subordinate training school at Nilambur for the whole of Madras. This would serve to educate both Indians and Europeans who might be always under the regular training of the Superintendent'. Successive Secretaries of State for India, Stafford Northcote and the Duke of Argyll approved of Cleghorn's idea. Yet the Madras government abandoned the idea in 1873.

d) Opening of Forest Roads

Wide networks of forest roads were introduced all over the Malabar and forest engineers and engineering department was started.

e) Forest Utilization Branch

The discovery and propagation of each and every forest resource was one of the main agendas of the colonial forest policy. Their aim was to popularize the utility of every forest tree and other resources. For this purpose, the British had taken great pains to discover the properties and uses of the still unknown forest resources, make it popular, and find out markets for these resources.

Locality in Transition

The Madras Forest Act of 1882 empowered the Madras Government to undertake demarcation, reservation and settlement of forests as state property. It

safeguarded the interests of the dominant sections of *zamindars* and *inamdars* by exempting their lands from reservation, and even created the forest courts for allowing people to appeal against the Forest Settlement officers. Thus the ideas of Brandis and Baden-Powell had much in common: both advocated for the monopolistic control of waste and forest lands by the state, barring the chosen exceptions. There had been debate between the officials and the main theme of the legal debate was on the nature of people's rights in forests. For Brandis, the forest rights were inherently limited in nature and could only be exercised as long as the waste lands and forests provided the sources. He pointed out that forest usage in India existed in the form of user rights but not as property rights.²³

Government forestry policy in British India during the second half of the nineteenth century emphasized the conservation of indigenous forests and the establishment of timber plantation. Historical studies investigating 'Empire forestry', the term used to describe the rise and spread of state forestry in India and then throughout the British Empire, have tended to focus on the territorialization, management and regulation of indigenous forests rather than assessing plantations. Some area studies specialists of India have drawn attention to the local social and ecological dimensions of timber plantations, these plantations economic and environmental changes were part of an important global transformation that occurred between the 1840s and the 1870s. Southern India was one of the most dynamic and important of these locations because the region produced commodities that were in high demand in Britain and the Empire. In India, the expansion of plantation agriculture created a mutually reinforcing dynamic that encouraged botanical and agricultural experimentation, which in turn led to larger tree-planting campaigns. At one level, the deforestation undertaken to make way for agricultural plantations led to environmental anxieties, prompting government officials to plant

²³ Arun Bandopadhyay., *op.cit.*

trees to replace declining forest cover. Newly acquired scientific knowledge transferred both across disciplines and between the different types of plantations. The knowledge required growing various trees or a shrub - coffee, tea, and cinchona - often applied across species and was not confined to a single discipline or skill. Government officials and private individuals making and managing timber plantations did not see them narrowly through any single professional lens, they drew on a mixture of local experience and methods devised in India, and accessed a range of professional and amateur scientific opinion. Malabar's unique climatic conditions, the integration of key botanical and economic networks, and the idiosyncratic methods developed locally in order to cultivate specific plantations could not be easily translated to other sites. The plantation as a system evolved alongside European colonial expansion, and reflected an economic trend towards the intensification of land use²⁴.

They started a series of changes in the forest landscape of Malabar. In the name of systematic management and scientific forestry, they activated commercial forestry. The techniques of scientific forestry reordered the traditional and natural outlook Malabar forest. The individual concept of forest also changed from *kadu* to Forest. The languages of scientific forestry worked justify the shift towards commercial working.

The industrial revolution had completely drained England out of Oakwood which was largely used for ship building and railway sleepers. Within the increasing demand for wood that possessed similar qualities to that of oak, the British were satisfied with the properties of teak timber available in Malabar. As the base and superstructure of the British Empire building was science and economy, they used the knowledge of science for finding out the qualities of teak and their travelling

²⁴ Brett M. Bennett, 'The Origins of Timber Plantations in India', *The Agricultural History Review*, Vol. 62, No. 1 (2014), British Agricultural History Society, pp. 98-118.

gaze helped in finding out its quantity. For this purpose, the British sent many missions to different parts of India.

A political economy created in Malabar which determined the political ecology controlled in many ways by the merchant capital of the traders who were catering to the needs of the colonizers. The timber resources and geography were the most important factors that made the hitherto unnoticeable area visible to the foreigners. The sylvan assets of Malabar proved to be an exigent resource for both administrative and military purposes of British Empire. The gaze of the colonizer thus penetrated in to the native forest in which they found abundant raw materials which could cater their exigent needs arising out of the incessant continental wars and naval requirements. For strengthening their warfront and the navy timber resources proved to be a perquisite. It was this resource that helped the British to build an empire. During the second half of the eighteenth century and early half of the 19th century that the ship building industry managed and owned by the European companies forced high pressure on for the timbers, an inevitable material for naval supremacy. The naval supremacy was the sign and major agency of the British to consolidating their power in the colonies. The desire to corner a vast stock of teak prompted them to scan and survey the areas where teak was abundantly available in the Malabar Coast. The east India Company through scrupulous surveys determined that the best of timber for shipbuilding would be found in abundance in Malabar. Thus the colonizers indiscriminately extracted the timber wealth of Indian forest. At a critical point in the history of British Empire, teak trees in Indian forests emerged as a crucial factor in consolidating its political supremacy. The British were frantically searching for a timber that could replace oak tree which became practically extinct in their forests due ruthless extraction for industrial purposes. They found the alternative in teak, which was qualitatively superior to that of oak and this realization gained by the British through their research, paved the way for

empire consolidation basing on teak timber. The forests of India immensely contributed to the emergence of British Empire in two ways. Firstly, Indian wood was used in building ships which were employed in conquering rival European powers, and expanding the British Empire. Secondly the enormous quantities of forest resources were utilized for the construction of railways to transport resources essential for the functioning of colonial rule.

Timber Trade on the Malabar Coast

According to Michael Mann, an organized timber trade through state agency existed in Malabar Coast during the time of Tipu Sulthan who established a shipbuilding enterprise in 1786. Here the timber trade was carried out by jungle merchants and coastal merchants and method of working consisted of four stages:²⁵

1. On demand for the timber the master carpenter went to a coupe and marked the trees fit for felling.
2. Under the direction of the master carpenter the trees were felled on a special day with a sacrosanct law.
3. The transportation of logs was carries out by the drought animals. The amount of the timber to be transported and its price per logs were decided by the local chieftains who controlled the trade in the Western Ghats.
4. Coastal merchants, who brought the logs from the depots and stored them, distributed the timber to the shipwrights.

The English company through their travelling gaze and botanical explorations comprehended the quality and quantity of Indian woods, especially that of teak. They had also explored the areas where teak was grown abundantly in India.

²⁵ Lekha pillai., *op.cit.*, p. 144

The company immediately chose to build their ships in India. In 1800 a frigate named *Cornwallis* weighing 1363 tons and 50 built in guns entered the shores of Britain gaining unexpected praise from the British admiralty. This was the first ship built and launched by the EIC at Bombay Dockyard. Hereafter, several ships built of teaks entered the London dockyard which impressed the admiralty, prompting the EIC to establish a large scale ship building enterprise in Bombay. The Bengal – Bombay Joint Commission instituted in 1792 prepared a detailed survey of natural resources of the province of Malabar and referred to the timber resources available along its coast. The survey specified the quantity of teak timbers accessible within the region while various ecological explorations implemented by the British were crucial in identifying the worth of the timber for commercial purposes.

The main agenda of the period (1850-1947) was the maximum extraction of the timber under the guise of the scientific forestry. Timber plantations, working plans, trained conservators and forest officials and timber contractors all worked as a coherent unit for maximum exploitation of timber from the forest. More structured and well organized forest management practices resulted in massive deforestation instead of the proclaimed goals of conservation. The technological explosion from ships to railways materialized the fields of transportation and they demanded a huge quantity of timber for its expansion. The South Indian Railway Company set up for the expansion of the railways in southern states of India put forth a huge demand for timber. The construction of railways in India was a watershed in the history of Indian Forestry. The large scale destruction of accessible forests in the early phase of railway expansion led to the speedy creation of the Forest Department. The network of tracks increased from 32 km in 1853 to cover 51650km in 1910. The construction of railways required a huge quantity of timber since, it took almost 900 sleepers to build 2 km of tracks. The best material used for sleepers were Teak, *Kongu* or *Kambagom* etc.

During the early nineteenth century the E.I.C. was found trying every means to get control over the natural resources of Malabar Coast. But their ambition to get maximum timber resources proved to be a failure as they were not able to break the indigenous trading structures. Just as the forest department had to be given up because of gross inefficiency, the control of timber trade had to be abandoned owing to the lack of power to influence well –established trading patterns. Instead the colonial regime had to rely on local structures. Accordingly the timber trade was partially organized with the help of large timber traders and additionally, through individual contracts negotiated with smaller merchants.

German and French Experts-Scientific Knowledge and Forest Management

During the nineteenth century, colonial governments established a number of scientific agencies to manage the landscapes of their empires²⁶. In the first half of the twentieth century they consolidated on this investment by creating an increasingly co-ordinated network of natural and social scientific institutions. The knowledge of science played a significant role in shaping colonial environmental agendas and the attitudes and values concerning nature and society implicit in scientific resource management and applications in colonial India²⁷. Ravi Rajan emphasizes that what was transferred from Germany and France to the British colonies was not simply technical conceptions about forestry but also particular values and ideologies about the proper role of governments in the management of forests. Physicians, military officers, botanists, horticulturalists and arboriculturalists all them experimented with growing teak. A succession of botanists at the botanical garden in Calcutta - Colonel Robert Kyd (1746-93), William Roxburgh (1751-1815) and Nathaniel Wallich (1786-1854) - trialed teak in Bengal, Orissa and Bihar. Humans could only apply rationalistic models after they sufficiently understood and

²⁶ S. Ravi Rjan, *Modernizing Nature: Forestry and Imperial Eco Development 1800-1950*, OUP, New York, 2006, p. 1.

²⁷ *Ibid.*, p. 3.

could control nature. In 1852, Falconer, for the first time, could happily confirm to the Bengal government in report on teak: 'that the forests [of teak] can be renewed by planting, I consider to have been fully established ... by the results attained on the Malabar Coast'. The Rajah of Nilambur, who owned most of the land in the region, would not sell any to the British, so the plantation site near the Nilambur River had been purchased from a temple in financial need. By 1860-61 the size of the plantations had expanded to 1100 acres, when the oldest plantations, then over 15 years old, were progressing favorably'. In 1862 a Scottish forester, Ferguson, took over the operations of the Nilambur plantation. A million and a half trees had been planted out before his arrived. The plantations, he felt, required pruning and thinning. Nilambur faced a shortage of labor made worse by its location, the supposed caste prejudices of the local Hindu caste of *Nairs* who prefer their own caste to any other', and the opening of the Western Ghats to plantation agriculture, which 'drains a great amount of labour from the district'. When possible, Ferguson employed possible, Ferguson employed Indians to thin the trees, and he began selling, thinning at a government depot in Calicut.²⁸

From the middle years of the 1860s, Arabs began to attend the auctions, providing revenue to pay for the running of Nilambur. Ferguson also studied other experiments with teak, looking in particular to Burma, where foresters studied and debated many of the practices of the Karen, such as multiple cropping and slash and burn plantations. In 1867 the Madras government approved the experiment of planting food crops amongst the teak saplings during their first year based upon the Burmese Karen methods of *taungya* (slash and burn agriculture). But this method was declared a failure in 1869, and Ferguson stopped it. More mixed species experiments continued in the 1870s to 1890s, as foresters continued to experiment. Hugh Cleghorn, the first conservator of forests in Madras, to suggest in 1867 that the Forestry Department expand plantings at Nilambur and also ten miles away at

²⁸ Brett M. Bennett, *op.cit.*

Nellicottah. Cleghorn suggested that the Madras government create a subordinate training school at Nilambur for the whole of Madras. This would serve to educate both Indians and Europeans who might be always under the regular training of the Superintendent'. Successive Secretaries of State for India, Stafford Northcote and the Duke of Argyll approved of Cleghorn's idea. Yet the Madras government abandoned the idea in 1873, even after Argyll urged them to reconsider, when the government began discussing the establishment of a forestry school for Indians. The failure to establish the school reflected the relative weakness of foresters in Madras, a province dominated by government officers who were concerned about the social ramifications of applying forestry laws in the communal land tenure regions of South India.

Ferguson and his successor Gordon Hadfield (1883-1894) continued to experiment with mixed Teak plantations inter-planted with Brazilian rubber (*Hevea brasiliensis*) and West Indian mahogany (*Swietenia Mahagoni*). The desire to grow multiple crops stemmed from two factors. First, foresters and botanists began to recognize in the 1870s that monoculture teak plantations had higher rates of disease and pest infestation than natural forests. Conservator Captain Beddome noticed Nilambur's first pests in 1867, with various infestations of disease and bugs breaking out in the following years. In his influential 'A Manual of Indian Timbers' was prepared (1881), J. Sykes Gamble cautiously pointed to the destruction of monoculture Teak plantations: No safe speculations can be formed regarding the future of a pure Teak forest like that of Nilambur. In its natural state Teak does not grow alone, but is associated with bamboos and a variety of other trees; and it is impossible to foresee the risk of damage by storms, insects, disease, or other causes to which pure Teak forests may be exposed. New exotic species offered the opportunity to grow multiple species with a much quicker rotation than teak (the full teak cycle was assumed to be between 60 and 120 years). Ferguson introduced Rubber trees (*Hevea brasiliensis*) in the plantation in 1879 after receiving the seeds

from the Royal Botanical Gardens in Peradeniya (Ceylon). The plantation superintendents also introduced other rubber trees (*Castilloa elastica* and *Manihot Glaziovii*) into the plantations. In 1872 Ferguson started planting Jamaican mahogany seeds amongst the teak. These experiments, like the rubber proved less than successful²⁹.

Nathaniel Wallich who was the superintendent of Calcutta Botanical Garden, on the wake of timber shortage suggested state intervention for protecting the forests. A new system of timber trade and forest policy was introduced in the Malabar Coast from 1840s onwards, the pioneers in this being Dr. Alexander Gibson and his assistant Hugh Cleghorn. The second half of the 19th century witnessed a well organized timber trade. With the transferring power from the company to crown the trade increased in every means controlled by certain rules and regulations. With the growing appeal of the trade, the number of traders increased in a geometrical progression. According to Gadgil and Guha, the strategic value of Indian forests was made evident first through the construction of railways and it was highlighted during the wars. During the First World War timbers and bamboos were supplied for the construction of bridges, piers, wharves, buildings, huts, and ships. Private traders as well as the companies frequently persuaded the government to facilitate the attaining of their target amount. The history and evolution of forest policy and scientific forestry in British India during the nineteenth century is complex. Growing demand for teak timber was one of the matters which received early attention. In 1865 appointed Dr. Cleghorn as Conservator of forests in Madras Presidency. Dr. Alexander Gibson, Dr. Cleghorn and Dr.Brandis, the officers signalled their appointment by some valuable reports in which the physical value of the forests was taken into consideration and the serious consequences which the great destruction of forests was having upon climate, water supplies in certain parts of the country. Dietrich Brandis recruited trained personnel for organizing forest

²⁹ *Ibid.*

operation and for establishing the forest departments. The aim was to create forest reservations to meet national and regional long term needs for resources such as water supply, soil conservation etc. They passed many regulations and Acts for the transformations. The Act of 1865 was found to be insufficient and in the year 1878, the Indian forest Act VII was passed for the constitution of reserved and protected forests. The same year a forest school was opened at Dehradun which trained Rangers for all the states. A provincial forest service was inaugurated in 1891 with a view to training in India itself a suitable cadre of forest officers. By 1882, all the areas then under British rule had either extended the Indian Forest Act to their territories or brought out special forest acts³⁰. In 1885, training of forest officers for India commenced at Cooper's Hill in England. The aim of the declaration of the forest policy in 1894 was to promote the general welfare of the country, the preservation of climate and to fulfill the needs of the people. Concomitantly, during the period 1871 - 1900 the preparation of Working Plans and protection of forests from fire was commenced. With inadequate equipment, the forest officer took up the pioneering task of exploring the forest and demarcating them.

The colonial intervention transformed the human geography of Malabar. The impact of this intervention was the slow transformation of nature and people. The colonial erosion of resources-the perspectives on nature or the concept of nature was shattered. The forest natives were changed into the forest dwellers and their allegiance to nature was also changed with it. From the time immemorial or in Indian tradition and life the forest was a part and parcel of the life. They viewed the forest or nature as the abode of gods or the place of god, the concept of god was *Vanadevatha* or *Vanalakshmi*. The people of Malabar led an eco friendly life or abide by the law of nature and preserved the ecosystems both in tribal and non tribal areas and localities. They enjoyed the territorial nomadicity and migrations in their

³⁰ Ajay S. Rawat, 'Evolution of Scientific Forestry in British India', *Proceedings of the Indian History Congress*, Vol. 49 (1988), . pp. 533-534

life. But with the introduction of organized forestry and the access to forest was restricted, so as to ensure commercial exploitation and to promote rapid growth of the railway network especially in the last decade of the nineteenth century. The villagers were also against the forest policy of fire protection. The British forest policy affected most the forest dwellers and people from the hills who were rendered alien in their homelands. Thus there was a marked antipathy and hostility towards the measures adopted by the Forest Department in several areas in the sub continent. They consolidated the power and structure of the resources of the Malabar and its folk.

Chapter III

British Forest Economic Management

The flora of the district which ascends through every variation of soil and climate from the purely tropical zone on the coast to the Cold Mountain tops of the higher ranges of the Western Ghats with a rainfall nowhere less than 50 inches and often more than 300. Wonderful is that the contrast between Malabar in the hot weather and Malabar in Monsoon. In March when skies are brass and Earth is Iron and hot land winds blowing the sun baked paddy flats are bare and brown and beneath the shade of the dusty trees, the Gardens are mere wastes of laterite Rock and uncultivated ground¹. The climate and geography were very conducive to the growth of the natural forests of Malabar and an eco friendly life to the people.

Population

Malabar is one of the most densely populated districts in the Madras Presidency the average number of inhabitants to the square Mile was 481 and being much above the average of the presidency as a whole, 270. But the district area includes large tracts of practically uninhabited Hill country as well as the sparsely populated plateau of the Wayanad where the average density is less than hundred percent to the square Mile and the figures for Ponnani *Taluk* in which the population at the Census of 1901 averaged 1123 persons to the square Mile may be taken as presenting with fair accuracy, the state of the country within 10 miles of the sea board throughout the district.

¹ Innes and Evans, *Malabar Gazetteer*, Government of Kerala, Thiruvananthapuram, 1997(RP), pp. 18, 19

Details of the variation that have taken place in the period between the last three censuses. It will be seen that the population increased by 12% in the decade between 1881 and the 1891 the increase in the last decade only amounted to 5.6% It is not used to assign reason for this comparative decline, though it is partly attributable to the decay of the Wyanad Industries there is little emigration from Malabar and bad seasons and plague are negligible factors. The tendency of the population to move to the towns which was generally indicated by the results of the last census in other parts of the presidency was less noticeable in Malabar but that into prevail in some extent in the decade from 1891-is shown by the fact that the populations of Calicut and Pal Ghats increased by 10 and 13% respectively while the general increase for the district was only 5.7 %².

Colonial Engagements with Nature and Economic Management

The colonial period is marked by a massive growth of communication networks; the growth of non agricultural labor settlements, the large scale formation of reserve forests, and the conversion reserve forests into forest plantations etc happened during the colonial administration. In the pre-colonial period the area was thickly forested with evergreen and moist deciduous trees which used by the tribal communities for hunting and gathering. Permanent settlements with settled agriculture and in swampy lands paddy was cultivated. The thickly-forested areas were a minor forest produce in the form of roots and herbs collected and traded. A wave of colonizers occupied the major portions of the area, and converted the forests into a variety of garden and plantation crops. The British could succeed to consolidate their control over the area and attempts were made to establish European model in Malabar.

² *Ibid.*, pp. 92, 93

The Government of India has of late years taken an exceptionally large share in advancing forest conservancy in Madras. That presidency was among the first of the Indian provinces in which forest conservancy received attention. The development of the department was peculiar and towards the end of 1875 it had become apparent that its principal efforts were directed towards the establishment of plantations and groves scattered over the country, while the natural forests of the presidency were not under sufficient control. Then came the Famine Commission in 1877 who pointed out the necessity for more vigorous action in the protection and re stocking of the natural forests, more especially those situated within the catchment areas of the principal rivers used or diverted for irrigation of the low lying country.

The more immediate cause for the direct interference arose out of the introduction of the Indian Forest Act of the 1878. When the Act was under consideration, the Madras Government declared it unsuitable for extension to Madras because it was held by that government that the rights of the villages over the waste lands and jungles were of such a nature as to make it impossible to constitute forest estates under the provisions of Indian Forest Act. After some discussion it was decided to pass a special Act for the southern presidency. The first draft of a Madras Forest Bill which was submitted to the Government of India and found to be defective as regards both substance and form and was therefore not approved. After further correspondence a new Act was submitted to the assent of His Excellency of the Governor General in council, but it was found that both from a Forest and Legal point of view the Act was unsuitable. Accordingly His Excellency of the Governor General in council vetoed the Act in September 1881 and deputed Mr. Brandis later inspector general of Forests to the Government of India to visit Madras, with the view of his conferring with the Madras Government on the whole subject of the forest conservancy in the presidency. Mr .Brandis left for Madras in October 1881 and remained there until January 1883. During that he visited nearly

all important forest districts and submitted proposals to the Madras Government which now form of active forest conservancy in presidency.

The first step of importance was amalgamation of Jungle Conservancy Fund with the Provincial Forest Department and in connection therewith the localization of the Receipts and Charges of the department. The collector was appointed chief of the Forest Department in each districts with a District Forest Officer as assistant, while the Malabar district were arranged in Two Circles ,the Northern and Southern, each presided over by a Conservator of Forests who is the consulting and inspecting officer, with authority in matters of finance and establishments. In order to provide the necessary staff a comprehensive reorganization of the superior and subordinate establishments worked out and received the sanction of the government of India and of her majesty's secretary of state for India. Three experienced officers belonging to staffs under the Government of India were at the request of the Madras Government transferred to the Southern Presidency. The long pending question of a Forest Law for the Madras Presidency was brought to a satisfactory conclusion by the passing with effect from first January 1883, of the Madras Forest Act No. V of 1882.

Having thus been provided with the necessary and appropriate means of action, the department may be said to have started forest work on new lines towards the close of the year 1882. The subject which claims foremost attention is the demarcation and settlement of permanent forest estates, constituted under chapter II of the Act. The areas which have hitherto been considered as under the more special management of the department amount to 824 square miles to the northern circle and to 2046 square miles to the southern circle or a total area of 2870 square miles.³ A general Indian Forest Act was passed in 1878, which provides for the preservation

³ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99*, Regional Archives Kozhikkode, p. 11

and management of the forests, the control of forest produce in transit, and the duty leviable on timber⁴.

The area of reserves in the madras Presidency is reported as 2870 square miles, but these figures represent the areas locally classed as Reserves and not only those constituted reserves under Madras Forest Act No. V of 1882. Of this latter class, 683 square miles have been formed in the southern circle, and proposals have been made for further extensions during the present year⁵.

Some progress has been made in the preparation of working plans and collection of statistics for future plans of the northern circle and southern circle. In north Malabar a rough working plan was prepared for the *Kurichiyath* reserved forest on the basis of the measurements made line 5½ miles long and 50yards wide, 100 acres taken right through the forest. The sample plots have not been under observation long enough to arrive at any data of importance. In south Malabar the provisions of the working plan for the Teak plantations and that for the natural forests of Nilambur valley were adhered to. The work done in the natural forests was successful financially. In the area of 80acres planted up the planting after deducting the amount realized by the sale of the timber standing on the ground came to Rs. 155 only. In the same tract 80 acres was cleared and prepared for at a cost of Rs. 2388 and the produce removed for Rs. 5000 and odd. The *Waalayar* working scheme was again held in abeyance as the reserve required rest. In southern circle the expenditure on roads amounted to Rs. 18164. The principal works of repair in the north Malabar and the Nilgiri were confined to the Chedleth –Sulthans battery road in former district.

⁴ *Ibid.*, p. 2

⁵ *Ibid.*, p. 5

A departmental survey was started in all districts for the forest department purposes. In south Malabar the work consisted of the swamps and portions unsuitable for planting in coupe 1 in the *Karimpoya* reserve. The area of reserved forests for which final maps were prepared up to 30th June 1899 amounts to 8518 square miles⁶. The survey department played a key role in the consolidation and mixing up of the revenue and resources in Malabar as elsewhere in the country. The remarks already made with regard to demarcation work and to forest settlements also apply to surveys⁷. It was the strength of the colonizer to reach out the areas where the colonial aspirations to make fulfill.

The forest department is one of the branches of business made over to the Home Secretary and is in charge of the member council who holds the portfolio of the Home and the Revenue and Agricultural Departments. The inspector general of forests, besides acting as professional advisor of the government in all forests matters, fulfils the functions of under secretary in the home department, submitting cases direct to the secretary. The member in charge of forest works in since 1880 have been the honorable Mr. Sir Rivers Thompson up to the 9th May 1882 and the honorable Sir S.C. Bayley from that date. For the past three years the inspector General has been Dr. W. Schlich, who has recently been deputed England in connection with the forest school at Cooper's Hill. His predecessor was Dr.D. Brandis, C.I.E the founder of systematic forestry in India, whose labors in the cause of forestry in India must always command the grateful remembrance of Government.

The constitution of forest reserves later enhanced to an area to 9500 square miles. In Madras climatic conditions would appear to demand more liberal provision

⁶ *Ibid.*, p. 10

⁷ *Annual Administrative Report of the Forest Department of the Madras Presidency-1888-89*, Regional Archives Kozhikkode, p. 14

of wood land than is necessary in other parts of the empire. The area extended to 50000 square miles –place all extensive tracts of waste lands and forests. Which are not required cultivation or which in view of the insufficient area of pasture land available outside the forests that have been set aside for the special purpose of supplying timber and fuel, it will be better policy to preserve for the grazing requirements of the people- under chapter II of the forest Act, so that they can be permanently managed in a systematic and therefore the most profitable manner for the state, whether for the supply of the timber, fuel or fodder⁸.

Pressure of forests: there are many causes at work which are gradually thinning the ranks of the indigenous forests. The first and by far the most formidable of these are Railway requirements. It is scarcely credible the many thousands of large forest trees which have been felled in the neighborhood of the various lines of the railway within the last few years⁹. (Report of H.Cleghorn).

H .M.Dockyard: a reference was made from the secretary of state for India, through the government of Bombay, as to the possibility of supplying a durable timber called *Aynee or Angili* for the Royal Navy. The officers in charge of the forests in Canara, Cochin, Travancore and the collector of Malabar were called upon for their opinions as the size and quantity procurable in the respective districts. The report of the residents of Travancore and all the papers connected with these subjects are recorded in proceedings of government, No.806 dated 19th May 1860. Mr .F.N.Maltby believes that 10000 loads per annum for five years must be supplied at the rate of 12 to 14 rupees per candy to the great advantage of the Travancore state. The Admiralty is looking to India for supplies of timber. If the forests of this presidency are called upon to any extend to meet the demands of the Home

⁸ *Annual Administrative Report of the Forest Department of the Madras Presidency- 1885-86*, Regional Archives Kozhikkode, p. 9

⁹ *Summary progress from 1879-1884*

Government, it is evident that the conservancy of all reserved tracts must be rigorously enforced¹⁰.

The Madras Railway has hitherto used to a very great extent the indigenous woods for sleepers. About thirty kinds of Timber have been tried experimentally, but the experiment has not been attended with satisfactory results, not always, because the woods were worthless, but from the timber not having reached a sufficient age, and from its being used in a comparatively green state. Experience has been gained and better prospects are dawning on the Company in this great essential of Railway operations. The chief engineer issued a useful circular to the officers of districts, regarding the branding of the sleepers, of which the following is an extract. At the time of passing the sleepers they must be branded with a letter showing the kind of wood according to the table of the woods¹¹.

Mr .Ross, Resident Engineer at Palakkad is working the '*chennat Nair*' forest on contract, where there is a large supply of well grown *Errool, Venge, Karra-marda*, he conducts the operations with energy and judgment. The work is occasionally inspected by Cleghorn. Pyngda of Burma which Lt. Williamson recommended in his letter to the chief secretary as a superior wood and suitable for railway purposes is identical with *Errool* of Malabar. (E.M.G.No.544 dated 18th August 1859).

Yarrah a wood from Western Australia was specially noticed in a Dispatch from Lord Stanley to this Government and furnished to the Agents of Railways in this presidency. This wood "*mahagony*" of the colonists is being largely imported. A timber trade with Australia would benefit the colony and supply the Indian market with a suitable for teak which is yearly becoming more scarce and costly. The

¹⁰ *Ibid.*, p. 2.

¹¹ *Ibid.*

eucalyptus also imported and are many specimens on the Nilgiri hills-trees may succeed on our mountain ranges and furnish a timber superior to any of the indigenous woods¹².

The increasing demand for woods, available for government purposes renders it of the utmost that the various plantations should be carefully watched and conserved, especially now that the Home Government is looking in this direction to supply her dockyards. The largest and most valuable forests are reserved for the purpose of government and measures have been adopted not only to prevent inroads upon with the axe and configuration, but to watch the growth of the plants and provide against being they choked by the undergrowth which springs up around them. The forest is of such importance and at such a critical period in its history – recommended for the conservator and the periodical visit of the collector¹³. Reserves were added to the area under protection¹⁴. Fire protection were recorded for the official year¹⁵.

In Malabar area of the forest has been increased. The total area of forest under the control of the forest department has increased by 1903 square miles. The changes in the areas of reserved and protected forests shows the results of forest settlements, and the consequent transfer of one class to another. The respective rights of the government and private persons in and over any forests are finally settled only by the constitution of such property as reserve under the forest law in force¹⁶.

¹² *Ibid.*, p. 3.

¹³ *Ibid.*, p. 12.

¹⁴ *Annual Administrative Report of the Forest Department of the Madras Presidency-1885-86*, Regional Archives Kozhikkode, p. 14

¹⁵ *Ibid.*

¹⁶ *Ibid.*, pp. 1-2.

Table 3:1*Table showing the Changes of the forests during the year 1886-87*

Class of forests	Area in square miles				proportions of forests in which area of presidency(84575 square miles)
	At the commencement of the year	Added	excluded	At the close of the year	
Forest reserved Under Act V of 1882	1625	685	1	2312	Per cent 3
Forests reserved under previous orders of government or regarded as "reserves" previous to Act V of 1882	1109	1	43	1067	1
Leased forests(reserved)	198	.....	.....	195	.....
Reserved lands	7060	1085	653	7492	9
Other forests	1126	21	48	1099	1
Total	11121	1792	745	12168	14

Source: *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88*, Regional Archives Kozhikkode, p.11

In Malabar the government and department started the direct intervention in the management and utilization of the forest. It has been described clearly in forest records. The forest areas, and the property of government, were partially or entirely under the management and control of the Forest department on the 1st April 1886 as shown below.

Table 3:2

Table showing the forest areas, and the property of government, Forest department on 1st April 1886

Province	Area square in miles	Reserved forests	Protected forests	Unleased forests	Total	Proportion of forests to whole area of province
Madras (Malabar)	141028	2737	7060	1126	10923	8

Source: *Annual Administrative Report of the Forest Department of the Madras Presidency-1885-86*, Regional Archives Kozhikkode, p.1

Rules of the Conservancy of the Forests in the Madras Presidency

1. All parties found felling trees or removing timber or firewood from government jungles and forests in breach or disregard of the prescribed rules will be liable to criminal prosecution for theft, mischief or trespass as the case may be Under the Penal Code and to the confiscation of timber.
2. The trees and shrubs which fringe springs and mountain streams (to a distance 20 yards from each bank) are not to be felled. Parties felling or recklessly injuring the same will be liable to criminal prosecution.
3. Charcoal burners or others setting fire to any of the government jungles or forests will be liable to be prosecuted for Mischief under the penal code.
4. None of the reserved timbers are ever to be felled, when the tree is less than 3 feet in circumferences at 3 feet from base.
5. All applications for license must state whether the timber required is to be brought out of the forest in the rough or worked up as the latter pays a higher seignorage.
6. All timbers not included in the published list as reserved and bearing a fixed seignorage will be charged with a seignorage of 1 rupees per (2 bullock) bandy load.
7. Villages are in all cases allowed to cut firewood from low scrub jungle for their own use free of taxation.
8. The time allowed for licenses to run shall not exceed three months.
9. Any one felling trees in the forests or removing the same within the limits of the tannah stations must be ready to produce both his voucher and license when required.

10. Time expired license must be given up, even though the timber paid for has not been removed.
11. All confiscated timber shall be arranged and numbered off into lots by the forest Officer and shall be sold by public auction after due notice shall have given in the District Gazette, and also, if the timber is of much value, in the Fort St.George Gazette. All purchasers will be required to pay the price of the timber purchased into the *Taluq* treasury and to produce the *tahsildar's* voucher for the same before they remove the timber.
12. In the event of confiscated timber being sold by auction 50 per cent of the net profits will be paid to informer, whether he belongs to the forest department or not¹⁷.

The following table shows the trends in the number offences in the presidency and Malabar related with the break of the rule of conservancy and the crimes defined by the forest department. This shows the engagement of the colonizer with nature and people.

¹⁷ *Reports of the Conservator of the Forest for the official year 1863-64*, Regional Archives Kozhikkode, pp. 17-18.

Table 3:3*Table showing the Trends in the number of offences, 1886/1887–1939–1940*

Year	No.of offences	Year	No.of offences	Year	No.of offences
1886/1887	2493	1904/1905	21930	1922/1923	30878
1887/1888	3358	1905/1906	23021	1923/1924	30205
1888/1889	3934	1906/1907	23141	1924/1925	32420
1899/1890	4034	1907/1908	24453	1925/1926	29940
1890/1891	5577	1908/1909	25470	1926/1927	25321
1891/1892	NA	1909/1910	25277	1927/1928	25976
1892/1893	NA	1910/1911	26498	1928/1929	24714
1893/1894	10007	1911/1912	29222	1929/1930	23345
1894/1895	9883	1912/1913	29892	1930/1931	24798
1895/1896	9610	1913/1914	31777	1931/1932	23876
1896/1897	13218	1914/1915	32541	1932/1933	29476
1897/1898	16769	1915/1916	30885	1933/1934	30616
1898/1899	20495	1916/1917	28087	1934/1935	28242
1899/1900	22810	1917/1918	27091	1935/1936	28936
1900/1901	22130	1918/1919	26160	1936/1937	27017
1901/1902	23750	1919/1920	27537	1937/1938	26738
1902/1903	23125	1920/1921	23497	1938/1939	28890
1903/1904	21883	1921/1922	29040	1939/1940	31221

Sources: *Administrative Report of the Madras Presidency and Administration Report of the Forest Department of the Madras Presidency* (various years) N.A not available.

Captain R.H.BEDDOME Reports:-

In June, he visited the Teak plantations at Nilumbur and the forests in the district. The 'diospyros ebenum' (called by the natives Nallootee) a tree yielding one of the best Ebonies of commerce has been found in this district and has been entered in the reserved list. As the railroad is about to run through this district, there will be a great increase in the consumption of fire wood .Mr Yarde's report paras,20,21, and 22 treat on this subject. The felling of fuel for the locomotives will be restricted to certain tracts and the sub assistant conservator is now giving this subject in his

attention. As the railway will pay the large annual sum for firewood, it is hoped that our department will be able to establish firewood plantations and this matter is now under consideration. The collector of the district has been written on the availability of placing a small tax upon the iron smelting forges¹⁸.

A cart road between Mananthavady and the western sea board has been sanctioned by the government. When this road is completed there will always be a sale for the timber from these forests and the demand will probably be greater than the supply. It is systematically worked ,without the coast market which this road will open, it is doubtful whether the receipts from these forests cover the expenditure; the stock of timber however will increase and will eventually cover any present excess of expenditure. The conservancy of these forests is most essential; they are the largest and the best tract of teak in the presidency.

The financial results for the year have not been as favorable as was anticipated; the chief reason was the great scarcity of labor, which prevented our bringing the saplings to the market until after the season for export was past. The opening of our depot at Calicut too was new to the public and was not known at any distance. When the saplings were put up to auction , no Arab traders were present and the merchants seem to have combined to keep down the price and to prevent the success of our depot 10000 of saplings out of the 40000 in depot at Calicut were sold and these realizing only small sum of rupees 2160, the sales were stopped. This was less than 4 *annas* each, which price they fetched last season lying in the plantation at Nilumbur and we had valued them at 8 *annas* each in Calicut. By arranging our sales at the proper period, better results are confidently expected in future¹⁹.

¹⁸ *Ibid.*, p. 1.

¹⁹ *Ibid.*, p. 11.

Nilambur is the most feverish locality, and it is very difficult to get any of the establishment to remain long. The establishment is almost always in a disorganized state from sickness. The Raja's word, too, is law at Nilambur and neither Raja nor any of his people give the assistance that might be expected from them. Thus the government transformed or established their complete sway over the forest wealth in the locality with all the support from the raja.

The forests of the line Ghats in some parts of the District terminate near the base of the hills, in other localities they extent for some distance into the plains. The growth of timber is very fine, inferior perhaps only to Malabar. The numerous rivers down to the coast give great facilities for bringing the timber to a market.²⁰

The temple trustees have already done great damage to the forests. If what they claim is granted they would sell all their trees at once and sell the land for coffee (it is the best in wynad), large coffee plantations between this part of the belt claimed by Tirunelly Temple Trustee and his own lands have been mostly granted to the planters by the government or by squatters such as the Bagherry estate, the two large Pen estates, Oliate, Calipa, Dr, Magrath's &c.

If the modern custom of these temples of having sold timber on stump fee of 8 *annas* per tree to the wood merchant without the knowledge of the government is to establish claim to the proprietary right. It will be found in the records at *cutcherry* at Calicut that the revenue derived from 1851-54 on account of government for felling at the same rate was rupees 640 for 1280 teak trees²¹. The claimants, wood merchants state they were cut in the forests of Wynad belonging to the temples. They also state that they cut and removed a great portion of the timber before the order was published.

²⁰ *Ibid.*, p. 16

²¹ *Reports of the Conservator of the forest for the official year 1861-62*, Regional Archives Kozhikkode, p. 24

Captain R.H.BEDDOME Reports:-

Chennat Nair forest-the railway company has just taken a further lease for three years of this forest which is close to the line between Coimbatore and Palghat; the terms of the lease were raised on account of the enhanced price of the timber in the market. By the terms of the former lease a seignorage of Rs 1.80 per tree was paid, this is now raised to Rs.3 for some special trees and Rs.2 for other jungle trees²².

There is still a large quantity of fine timber in government forest in Wynad – teak, Blackwood, Hona and Muttee abound everywhere and in some places there is a good deal of Cedar Wood, One market was also functioned at Mysore. The Peria Ghat made possible for heavily laden timber carts, thus opening the market on the Western Coast; a very large profit might be expected. A fair weather road through the Roodry Cotta forest could be made at the small distance being only from 10 to 15 miles to the main road that passes through *Manantody* to *Tellicherry* and another similar cart road might be made from Koorchiath and Chedaleth forest to the main road leading to the coast via Tamarasseri ghat. Opening up of the markets for Wynad timber and new roads opened for new markets. Temple lands were also taken on rent and boundary stones were erected in the forest²³.

The government is glad to learn that these government owned plantations are thriving so well under Mr.Ferguson's care. A million and a half of tree have been planted and are valued at Rupees 20,59,117. The tools applied for have lately been received and great attention should now be paid to thinning and pruning. The

²² *Reports of the Conservator of the forest for the official year 1862-63*, Regional Archives Kozhikkode, p. 8

²³ *Ibid.*, pp. 30-31

plantation now yielding a handsome profit from the sale of teak saplings and other timber and the planting of fresh tracts should be systematically carried on²⁴.

Major H.R.MORGAN Reports:-

Owing to the richness of the soil, and moisture of the climate, the teak tree has in most places, defied all efforts at extirpation. In other parts it is lamentable to see the destruction caused by the *Kurumbers*; acres and acres of girdled teak trees of every size from the sapling six inches in diameter to the noble tree upwards of three feet. Very high prices have been realized for this dry teak, as it is called eight *annas* a cubic foot or an average ten rupees a tree, some of the trees being small, this rate may be considered as very remunerative. The only thing to be guarded against is fraud on the part of the Contractor who readily signs a contract, to take away every tree squaring more than six inches but contents him with taking only the choicest trees²⁵.

System of *Takkul* or temporary clearing; this system is on the decline in these forests found only one in its full operation in few places. A complaint was speedily lodged against the parties and the system. In some parts this system had been very extensively carried on the Teak tree was quite extirpated and a noxious growth of weeds and scrub jungle was all that was to be seen.

Major H.R.MORGAN Reports:-

A road from the Carcur Ghat to Nilambur passing through much government forests is also in contemplation ,this will tend much to open up this hitherto avoided part of the country and by encouraging bazar men and settlers , coolies will obtainable, it has been the preserving policy of the *Theropad* of Nilambur to keep out every one and under pretence of keeping a *bazar* and supplying travelers with

²⁴ *Ibid.*

²⁵ *Reports of the Conservator of the forest for the official year 1861-62, Regional Archives Kozhikkode, p. 1*

grain &c, he has hitherto contrived to starve all travelers putting up at Nilambur ,as the answer in general is, no grain, no sheep, no fowls²⁶.

The opening of the Thamarasseri Ghat will enable us to carry our timber coast at a cost of about 16 rupees per ton. Whereas the present price of carriage is 50 Rupees. The price of the timber on the coast is from 75 to 100 rupees per ton according to quality and it would be very remunerative at even 75 rupees a ton or 1 rupee 8 *annas* the cubic foot. They could fell and deliver the timber at 12 *annas* the cubic foot; this would leave at least a profit of 12 *annas*. But only first class timber was sent to the coast. Indeed the timber could afford to pay a toll of 2.5 Rupees for the cart or 5 Rupees the ton, merely for using the Ghat, as without the ghat one of our principal markets would be closed to us²⁷.

In due course of time the government appointed a special commissioner well versed in Malabar tenures and the history of Wynad to proceed to the spot and give a title and the boundary of the forest be settled. Captain Hunter speak of Teak being a Royalty and brought the attention of government, the extreme value of the teak forest and the *devastanum* people ever having been granted the right to cut teak.(No.844 15th April 1862 Revenue Department)

The other profitable plantations also opened in the governmental sector. The collector having been called upon to report periodically on the Cinchona experiment being conducted by Mr. Melver of the government gardens of the Ootacamund. In the year 1859 the secretary of state ordered the conservator of forest in conjunction with Mr. Melver to select the suitable localities for the reception of certain cinchona plants shortly expected from England. A site at *Neddiwattum* was selected and in October 1860 Mr. Melver received charge of certain Cinchona plants from Mr.

²⁶ *Reports of the conservator of the Forests for the official year 1860-61*, Regional Archives Kozhikkode, p. 1

²⁷ *Reports of the Conservator of the forest for the official year 1861-62*, *op. cit.*, p. 2

Markham and later Mr. Cross arrived with 463 plants²⁸. Thus the introduction of a new plant and plantation culture was started and the alteration of the landscape and ecological equilibrium of the locality. (No. 2244 8th November 1861 R.D, No.1072 14th July 1859.P.D)

Appointment of a European forester; Mr. Ferguson as an Overseer, recommended by Dr.Cleghorn as a good forester and he was directed to proceed the plantations²⁹ in the locality. Java mode of cultivation was started with Dr. McPherson.

Scarcity of labor; the local people including the tribes were employed as the labors for thinning work and extra grant of money was sanctioned. Major Babington reports, and the value of the saplings, there is an immense demand for them for export to the Arabian coast and he should occupy himself with arrangements for floating them to Calicut with the first freshes³⁰.

Seasoning of Wood

Several methods have been proposed for the treatment of the timber after it has been felled. The best modes for protection of woods were covering them with grease, mud, petroleum or matting. Several new scientific methods were introduced and used in Malabar under forest department for the preservation of timber and woods for the further commercial and industrial use. Mainly this was intended for the Railway purposes in India and abroad as well. They introduced a new process called Boucherie's process, and this was used to keep the sap intact and less liable to change. A full account of the process given in the Reports, &co. of the Permanent Way Company, in London who have adopted this method in the preparation of Railway Sleepers. They also introduced steaming process instead of immersing the

²⁸ *Ibid.*, p. 5

²⁹ *Ibid.*, p. 13

³⁰ *Ibid.*, p. 14

logs in water, burying them in dung –hill. By this steaming process the nitrogenous matter is dissolved out in the timber. They also used the methods of Burnettizing process for preserving the timber and Mr. Bethell and his methods too. These chemical utilization methods were tested and used in Her Majesty’s Dockyards to avoid the attacks of insects and fungi and the effects of moisture. Mr .Bethell uses creosote with the object of “coagulating the albumen and preventing putrefactive decomposition”. This widely used in Railway works³¹.

Wood Depot

Wood depot was started under captain Gib³². Government forest lands, these lands are principally contained in the four *Umshoms* adjoining the teak forests. They contain Blackwood, and much bamboo land. In many places the land is well fitted for coffee, the destruction of these forests not containing teak for the bona fide cultivation of coffee may be considered legitimate not for *raggee* which spoil the land for ever from being cultivated for coffee. If *raggee* is cultivated on lands unsuited for coffee it should be done on a *Puttah* with the permission of the deputy collector and taxed at a low rate. This system carried to a great extent in the *umshoms* of Ganaputhy vattum and Moonad in the bamboo and tree jungle. The price of the labor is so high that they might also be allowed a portion of land at a low rent on *Puttah* in case they are compelled to leave their holdings but the portion given should not be extended without taxation and a *puttah*. No *nair or Moplah* land holder would permit such wasteful clearings without being well paid for it. By order of government dated 16th January 1862 all *raggee* cultivation in Wynad is taxed 2 rupees per acre³³.The comparative quantity and value of timber supplied to Bombay government in the year 1860-61, denoting the increase or decrease in the number of

³¹ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99*, Regional Archives Kozhikkode, p. 4

³² *Ibid.*, p. 24

³³ *Ibid.*, p. 25

planks, quantity and class delivered and the amount realized. The rates were being determined by the collector of Malabar from their fair market valuation³⁴.

The rapid increase in the surplus revenues no doubt a gratifying features in the forest administration in India. Form no.62 appended to the annual reports, that during year under review , out of a total sum of Rs.88,55,000 representing the profits derived from the management of the forest lands in India, only Rs.27,81,000 or 31% of those profits, devoted to the improvement or maintenance of the these lands³⁵.

The government lands were given to coffee cultivation. The planters are most anxious to know where the government lands are available for coffee. In 1858 Wynad contained 30 coffee plantations and now it contains upward of one hundred estates. Europeans have greatly increased as well as labour and capital. The *Nairs* towards the west selling their lands for coffee planting at 12 rupees an acre and one per annum quit-rent which shows how valuable and how great is the demand for land at present and will give idea of the value of government land and the advantage that will be gained by having them demarcated and fixed for ever³⁶.

In the teak belt there had been several bonds of *Coorroburs* of the Jani and others of *Moolly* caste, they amount to about as the below.

<i>Coorroburs</i>	200
<i>Curcheas</i>	50
<i>Panniars and Pooliars</i>	100
<i>Chetty and Squatters</i>	50 ³⁷

³⁴ Reports of the conservator of the Forests for the official year 1860-61, *op.cit.*, p. 11

³⁵ Annual Forest Administration Report in India, Madras Presidency-1888-89, *op.cit.*

³⁶ Reports of the Conservator of the forest for the official year 1861-62, *op. cit.* , p. 26

³⁷ *Ibid.*

The former lives entirely in the forest. They are our only axe men, and without them it would be difficult to work a forest. They do immense damage in clearing fine forest for *raggee* cultivation in fresh places yearly. The clearings are for many years after useless, even for coffee. The destruction of useful timber trees is incalculable but means have been taken to prevent this evil is now in a fair way of being put down.

They stopped the 'takul' or *raggee* cultivation in the teak forests, with the assistance of deputy collector of Wynad Mr. Herbert Richardson many *coorrooburs* and *chettys* have been fined, for such cultivation in the forests, some even to the extent of fifty rupees. *Coorrooburs* through their head man was responsible for pay, later on the *chettys*, and the *panniars* became the farm slaves. Assistant conservator was armed with powers to fine for such willful waste and destruction of government forest and which no amount of planting will counteract.³⁸ *Coorrooburs'* services are constantly called for by the wood cutters and the planters.

Mysore Contractors

Mysore contractors were employed and existed in the forests of Malabar for various purposes by the forest department. They were given some privileges and prorogates in the forest dealings and transactions of the timber and allied materials. They were mainly used for the collection of timber and the transportation. Difficulties exist with regard to having transportation. The logs were conveyed to the river as when in flood, every available elephant is engaged by parties who desire to get their wood to market; this causes the hire for elephant to be very high. It is therefore proposed that some of the commissariat elephants at Calicut and Malappuram be employed at Nilambur. A shed would have to be erected for them and application made for the services of 3 or 4 elephants. Calicut was seating of the

³⁸ *Ibid.*

Ferguson a Scottish³⁹. The rapid increase in the surplus revenues no doubt a gratifying feature in the forest administration in India. Form no.62 appended to the annual reports, that during year under review, out of a total sum of Rs. 88,55,000 representing the profits derived from the management of the forest lands in India, only Rs. 27,81,000 or 31% of those profits, devoted to the improvement or maintenance of these lands.

Experimental Interventions

Planting various localities has been carried on and preparations made for increasing this as an important branch of conservancy⁴⁰. Experiments with exotics were continued. An amount of the various kinds tried and of the progress. African seeds; in south Malabar only 28 plants survive.

Australian Plantations: The progresses of these plantations have been detailed in various forest reports. This was for supplying the Wellington barracks with fuel. An additional sanction rupees 2500 was made by government towards an extension of these plantations. (G.O.No.101. 20th January 1860)

Bamboos; the various kinds in south Malabar are doing well. Yellow bamboos planted in 1879 only one continues to flourish, the rest are slow in growth.

Ceara Rubber; these trees in south Malabar were doing well. No attempts were made during this year to tap them (1895-96).

Date; the date planting in the district is reported to be unsuccessful. The cultivation of these plants in south Malabar is reported to be a failure.

Ficus Elastic; the cuttings put out in 1897 at *Manantoddy* in North Malabar growing vigorously.

³⁹ *Ibid.*, p. 39

⁴⁰ Reports of the conservator of the Forests for the official year 1860-61, *op.cit.*, p. 7

Grevillea Robusta; the plants put out in *Manantoddy* office compound in North Malabar continue to do very well. A private practitioner, surgeon G.Cream was at *Manantoddy* as medical aid and medicines (fever) provided service.⁴¹

Havea Braziliensis; One kind of Rubber which usually grows in Brazil have introduced in North Malabar with about 7000 seeds. This species were obtained from the botanical garden, Ceylon, in September 1898 and were planted out in baskets in two different places⁴².

Avenue

They started the beautification programs and policies in Malabar. It should be placed under collector's and heads of villages made responsible for the proper care of the trees; at present the Engineering department has the charge of avenues. Hence the engineering department planted the trees and then handed them over to the collectors the heads of the villages being held strictly responsible for preservation of the trees from wanton destruction.

It is admitted to be better to grow trees from seedlings than from branches. It of the utmost importance that the trees planted has careful supervision, otherwise it will be impossible to ensure their healthy development and main object of the avenue-ornament and shelter will be lost. Some progress has indeed been made in this direction, the planting of certain portions of the public roads placed under skilled superintendence. A few of the principal Avenues in madras adjacent to the Horticultural gardens are under the care of Mr. Brown and the growth of various

⁴¹ Reports of the conservator of the Forests for the official year 1861-62, *op.cit.*, p. 27

⁴² *Annual Administrative Report of the Forest Department of the Madras Presidency-1885-86*, Regional Archives Kozhikkode, p. 32

trees suitable for avenues will be carefully watched by him. The Most suitable example is Ootty⁴³.

Charcoal

To them, even the charcoal was also source of revenue. It is proposed that instead of burning off wood and clearing of fresh plantations , most of the wood be burned in the charcoal for which there is a very large demand at the Beypore Iron Works⁴⁴. A fee of one *anna* will be levied on every basket of charcoal made in government woods. The village officers are authorized to collect the fees at the rate of one *anna* and remit the same to the *Taluq* treasury like other collections of revenue, any extra collection, misappropriation of funds & collection, will render them liable to the penalties provided for in Regulation IX of 1822. Every case of the evasion of the payment of fee on the part of the people and of the unauthorized cutting of the wood will be considered as a fraud and dealt with accordingly. The preservation of the government jungles, topes and fruit and timber trees from destruction, devolve upon the village officers, who will be held responsible for any breach of these rules where the forests are extensive and cannot be conveniently and efficiently overlooked by them, they will be aided by the *Taluq* Establishment⁴⁵. It also supplied for the increasing demands of timber for Railways and Iron Smelting and concerns for firewood. A tax of 12 *annas* per ton or 6 *Annas* per bandy load has been levied in some districts.

The Conservators

The appointment of the conservators heralded the organized exploitation of forests in scientific manner and systematic in Malabar. The administrative reports of

⁴³ *Summary ...op.cit.*, p. 13

⁴⁴ Reports of the conservator of the Forests for the official year 1861-62, *op.cit.*, p. 40

⁴⁵ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99*, Regional Archives Kozhikkode, p. 35

the conservators generally admitted that the present forest staff is too weak to adequately protect and develop the valuable state forest property, which already yields a clear net revenue to the government of 42 lakhs of rupees and which is likely to yield considerably more in the immediate future. It will be necessary to entrust Natives of the country with the execution of the many of the duties which have hitherto been more or less exclusively can be performed by a cheaper agency, the state is an unnecessarily high rate⁴⁶. The conservator of the southern circle writes; the conservators charge comprises 13 divisions of 62980 square miles in area, including 7555 square miles of reserves. A district forest officer's average charge is 4845 square miles of area, including 581 square miles of reserves; a range officer's average charge is 913 square miles, including 109 square miles of reserves; and a forest guard's charge is 175 square miles, including 21 square miles of Reserves. Thirty nine out of sixty nine forest ranges were in the charge of foresters, for want of sufficient rangers⁴⁷. There was also an increase in fire protection in Madras of 319 square miles on the year 1887-88⁴⁸. The magisterial power was entrusted upon the assistant in charge of forests⁴⁹. The number of cases taken into courts 2432 cases was almost the same as in the previous year, while the number of cases compounded was nearly double ,being 1324 in 1888-89 as compared with 787 the year before⁵⁰.

The subjoined statement shows the results of protection for the present and past year, as regards the number of offences taken cognizance of under the Forest Acts:-

⁴⁶ *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88*, Regional Archives Kozhikkode, p. 11

⁴⁷ *Ibid.*, p. 12

⁴⁸ *Ibid.*, p. 16

⁴⁹ Reports of the conservator of the Forests for the official year 1861-62, *op.cit.*, p. 1

⁵⁰ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99*, *op.cit.* p. 22

Table 3:4

Table showing the Results of protection for the present and past year, as regards the number of offences taken cognizance of under the Forest Acts-1886-88

Province	Number of cases taken to courts.		Number of cases compounded		Total		Proportion of convictions to the total number of cases decided by the courts.	
	1887-88	1886-87	1887-88	1886-87	1887-88	1886-87	1887-88	1886-87
	Madras	2312	2333	787	700	3099	3033	Percent 75	Percent 69

Source: *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88*, Regional Archives Kozhikkode, p.13

License and Voucher System Existed

Private forest fast disappearing- Mr. Hall reports that the forest belonging to different *mutahdars* are being fast demanded of all timber; these men are not willing to lease forests to government. So there started the license and voucher system in favor of the government. The forests of the line Ghats in some parts of the District terminate near the base of the hills, in other localities they extent for some distance into the plains. The growth of timber is very fine, inferior perhaps only to Malabar. The numerous rivers down to the coast give great facilities for bringing the timber to a market⁵¹.

Contract Law

A contract law is much required and losses under the advance system will always be considerable until there is one. As the law stands at present, contractors can take advances without intending or ever attempting to perform work ,when the period of their contract has expire, they can be apprehended by a warrant (if they are to be found) and if they then agree to refund the amount or to perform work (the

⁵¹ Reports of the conservator of the Forests for the official year 1863-64, *op.cit.*, p. 16

option is given to the plaintiff) they cannot be punished the consequence is that parties often take advances simply to get the money for certain period without interest, others after they have received advances from the forest department go off to work out some old advance received from coffee planters or others⁵². 158 logs were cut in the early part of the year for the Trincomalle coal sheds and of these 70 have been carted to the top of the ship. The remains are stored in the forest for wants of carriage. They cleverly used the monsoon season transporting the logs. 563 planks were safely floated to Ponnany by Captain Brine and Michael. Forest roads were repaired and extended by captain Brine. Advertisements were published calling for tenders for the purchase of the planks lying in Ponnani. Price lowered and merchants came forward (sale at Coimbatore or Pollachi)⁵³ (Reserved Forests and Reserved Lands -1898-99).

Native Timber Merchants/Traders

The timber contractors had played an important role in the transformation of the society and economy of Malabar. There were two types of Timber traders –the inland and coastal⁵⁴. *Kunjikkoru, Payanjalat Cheriya Pakki, Chovvakkaran Cheriya Pakki, koyakkutti, Muhammed Koya, Bappasa kutty* et al were major traders in this time.⁵⁵ There was a reference on *Thachara Thirumulpad* one samanta of *Zamorin* who had stood against the tree felling in this region. There are plenty references about the curved teak timber of Eranad in the correspondence files.⁵⁶ *Chovvakkaran Moosa, Kunjippakki, Makki* and his agent *Mallan* and *Aluppi* were the important timber traders or merchants in Eranad. Captain J.Preon was in charge of the curved

⁵² Reports of the conservator of the Forests for the official year 1865-66, *op.cit.*, p. 13

⁵³ *Annual Form No. 44 of Forest Department Madras Presidency*, Regional Archives Kozhikkode, pp. 8-9

⁵⁴ *Madras correspondence files-Forest Records 1820*, vol-2432. p. 77

⁵⁵ *Ibid*, pp. 83-85, 86

⁵⁶ *Madras correspondence files –Public Department 1806-vol-2177*. p. 110.

timber of Eranad. Malabar teak used for gun carriage wheels, and is superior for any wood for wheels⁵⁷.The official records tell us about the flourish of the brisk timber trade which existed between the colonial masters and the native people.

The forests, a great deal of valuable Teak timbers is obtained about the Coteady pass, the Nilamburr valley, Manar, and the eastern portions of the Nedungannad Taluk also a great quantity in the Palaghaut. The timber is cut annually and floated down to Calicut, Beypore and Ponnany, the three principal depots. The range of mountains forming the ghats run almost parallel with the coast, here and there they branch westward and form large vallies and abreast of Calicut they recede to the eastward and forms the valley of Eraanad-the ghats of the north join the higher mountains on the western face of the Nilgiri and Kondah Mountains. The whole of this valley is dense forest, where the finest teak in Malabar is produced. There are many opulent merchants Parsees from Bombay and other parts to the north who trade in timber.⁵⁸

Malabar is famous for pepper which is grown in every district and exported in very large quantities. It is a considerable source of revenue in this province. Cardamoms grow spontaneously on the mountains and forest west of Mannatoddy, the capital of Wynad. This article has always been farmed and the produce of late years increased has induced individuals to offer very large sums of for the exclusive privilege collecting it. They had exported timber, pepper, cardamoms etc. the wild nature of the country dividing the provinces from reluctance or unwillingness, or perhaps more arising from the ignorance of the people, who roam over these forests in quest of money, wax and edible roots, on the latter of which they subsist.

⁵⁷ Reports of the conservator of the Forests for the official year 1861-62, *op.cit.*, p. 19

⁵⁸ Ward and Conner, *A Descriptive Memoir of Malabar*, (RP), Government of Kerala, Thiruvananthapuram, 1995, pp. 2-15

Calicut (Beyepore) is one of the principal depot for Teak Timber many craft and a few small vessels are built here. A wind mill built at a considerable expense for cutting timber, the machinery, saws etc were decayed due to a failure in the operation. Timber and Bamboos are floated down during rains. The ghats and the lofty range of mountains of Wawoot dividing the Calicut division from Byenad and Eranad contains large quantities of Teak and other Timber also Bamboos and hollow reed, which are cut and floated down the small rivers during the rains to Calicut and Beyepore (Kallayi bridge).

In the Eranad *taluk* the whole of the timber forest as well as several *Kullums* or farms scattered around. The *Paniyar*, a low class reside and cultivate small tracts in the forest are principally employed in cutting timber, disposes off to individuals who contract for it. The *kalakkan poya*, *Carcoorpoya* and the *Shoulayaur* and the *Karimpoya* were the rivers which used for the transportation of the forest resources- the teak and other timber, also floats of bamboos are propelled down all these rivers to the Depots at Beyepore and Cullye. In the forest and mountains it is a rich black mould, owing to the constant falling decayed leaves and rotten wood. Honey and bee's wax are the productions of the mountains and forests.

The locality of Mannar is a high forest yielding teak and timber which is floated down from the mountain streams towards *Kurimpoya* and from thence to *Ponnany*, during the rains. Several military roads meet at the capital from different quarters, but none of them are well adapted for wheel carriages. There was a road between Calicut and Mannar via Manjery was used for many purposes.

The *Coorumbers* a low race had engaged in extracting the gold from the soil were inhabited in unfrequented parts of the hills and subsist on the on the produce of dry grain. Cardamoms are produced in great plenty between Peria and Kuttiady Pass, and are considered to be of a superior quality; also small quantities are obtained on the slopes of the mountains, farming the *Tambercherry* above the Pass.

Large quantities of Honey and Bee's Wax are obtained from the forests and rocks among the mountains, those are collected by a person who rents the forests, and these useful articles find a ready sale at the Sea Port Towns, from whence it is exported. Some of the Wax is made into Candles. These kinds of interventions and interfaces totally transformed the entire structure and face of the area⁵⁹.

The Estates Land Act

The Madras land Act was intended to undo all the mischief that had been done by the Rent Recovery Act VIII Of 1865 and declared the rights of the cultivators and the land holders in a clear and unambiguous manner (the assessment of the land and the mode of payment can be seen). Right of ownership which the cultivator acquired in waste land was changed later. By entering upon it, ploughing it and making it productive in Malabar.⁶⁰

Mines

In Board's standing order No.25, mines have been classified into three. Government, Private and Shared mines. Government mines are those rights of the government to subterranean minerals in the *Ryotwari* lands assigned after 1871. Before 1871 there were did not contain any specific reservation of mineral right to government. After 1871 the mineral rights were reserved to government. The lands assigned after 1871 and the waste lands are considered government mines. Those lands which were assigned before 1871 were considered as private mines. The *inams* and estates also were classed as private mines with full rights⁶¹.

⁵⁹ *Madras correspondence files* –Public Department 1813-vol-2425. pp . 9, 92, 93, 97, 98, 116

⁶⁰ *Reports of the Estates Land Act Committee*-part I, p. 90.

⁶¹ *Ibid.*, p. 146

The statement showing area of reserved forests for which final maps have been prepared.

Table 3:5

Table showing the Areas of Reserved forests-final maps prepared

Name of area	Area of reserved forest	Area of reserved forest final map prepared
N. Malabar	159	1
S. Malabar	190	40

Source: Madras survey office, Survey of India Party, p.39

Block System:

In this system instead of plantations, they started the conservation of natural forest, the Reserve forest. Forest officers have strict control to over it.

The foregoing chapter shows the commercial interest of the Britishers and its effects on the socio economic and ecological transformation of Malabar. The Britishers were well studied and aware about the nature of the lands of Malabar, inside the plantations; their settlements were located in the most stable areas of the premises. This was to escape from the landslides and other natural calamities.

Chapter IV

Tribes and Tribal Human Ecology

Tribes and Ethnographic Historiography

Only a few literary references on tribals of Kerala is available now itself. Dr. Francis Buchanan gave a mention about the tribal people of Kerala in his literary work *A Journey from Madras through the Countries of Mysore, Canara and Malabar* 3Vols¹ and it is considered as the earliest reference on tribals of Kerala in an authentic text. He gave a short detail of jungle tribes and *Nayadis* of Kerala. Jagor and Koerbin initiated the Anthropometric studies in Kerala prior to 1880 and it was only with the ethnographic survey of India and its aegis and the systematic studies and ethnographic accounts of the communities of the three regions, Travancore, Cochin and Malabar were carried in and after 1901. It was Edgar Thurston who made a systematic and laborious study on tribal people for the first time in his monumental work *Castes and Tribes of Southern India. Vol I-VI*². In this work he brings to light almost all tribal communities and castes in South India. He gave a detailed description of all most all the aspects like the society, religion and beliefs, family and occupation of each tribe. C.A. Innes and F.B. Evans referred the tribal culture and life in *Madras District Gazate: Malabar*³. These accounts were very useful for the reconstruction of the history of tribal culture on colonial period. William Logan mentioned the jungle tribes and servile castes of Malabar in his

¹ Francis Buchanan, *A Journey from Madras through the Countries of Mysore, Canara and Malabar*, 3Vols, London, 1807.

² Edgar Thurston, and Rangachari, K., *Castes and Tribes of Southern India*, Vols. I-VI, Delhi, 1975

³ C. A. Innes, and F. B Evans, *Madras District Gazetteers: Malabar*, Madras, 1951.

monumental work *Malabar Manual*⁴. *Tribes of Kerala*, a work of A.A.D Louis was a typical ethnographic study. P.R.G Mathur's notable work entitled *Tribal Situation in Kerala* gives the detailed description on the life and culture of the tribes and their transformations. Mathur clearly depicts transformations, the socio-economic conditions of the tribes- the changes in the standard of living and the living conditions. He also highlights the important problems faced by the tribes. He studied tribal life in a development perspective⁵. A.Ayyappan a well-known anthropologist made remarkable contribution to enrich the knowledge on tribes in different dimensions and even the minute aspects of the life. L.A.Krishna Iyer was another eminent scholar who extended studies on tribes with his in depth studies on the tribes especially the megaliths. B.Anandabhanu's study on the *Cholanaikkans* was another important contribution in this regard. His studies try to unravel the unknown areas of the tribal way of life and religion.

Wayanad taluk is famous for the diversity of tribal population in Malabar. C. Gopalan Nair has given a detailed account on the society and culture of the tribal people of Wayanad in his monumental work *Malabar Series: Wayanad its People and Tradition*⁶. The work gives valuable information on the impact of colonial culture upon the tribal lives. He pointed that the factors like colonial economic policies, deforestation and development of plantation had changed the material culture of the tribal people. He had foreseen the very threat of disappearance of many small tribal communities in Wayanad. *Adivasikalude keralam* by Nettur P.Damodran⁷ and the other Malayalam works like, *Adivasikalude Nattil* by Ambat Sukumaran Nair, *Keralathile Africa* by A.K.Panoor, *Kadrarum Avarude*

⁴ William Logan, *Malabar Manual*, Vol-I&II, New Delhi, 1995.

⁵ P. R. G. Mathur, *Tribal Situation in Kerala*, Kerala Historical Society, Trivandrum, 1977.

⁶ C. Gopalan Nair, *Malabar Series: Wayanad its People and Tradition*, Delhi, 2000.

⁷ Nettur P. Damodaran, *Adivasikalude Keralam*(Tribal Kerala), NBS, Kottayam, 1974

Kalmozhikalum by A.R.Narayanan Nair, *Karutha Kalakal* by Chummar Choondal, *Attappadi Adivasikalude Deshabhoomi* by P.Unnikrishnan Kallil and a number of articles and the doctoral dissertation in various themes also throws light on various aspects of the life and culture of the tribes of Malabar.

Malabar and the Tribes

Malabar is the land of number of tribal communities who inhabited here since time immemorial. Census was conducted in British India, and the tribal census was conducted in a particular way. With the help of Forest Department and officials Census and enumeration was carried in Travancore and Cochin while it was conducted in Malabar with the support of the landlords⁸. But in some British provinces it was directly under the control of the Government of India by the various local administrators.⁹ Macgregor, Collector of Malabar, reports, the primary census throughout the district, with exception of municipalities and coolies in the coffee estates in Wynad, was commenced on 15th March, 1871 and terminated in the end of the month. As regards hill tribes, there was only one enumeration which was conducted in the month of September. The data varies in different areas.¹⁰The tribal people of Kerala can be categorized mainly into three racial strains on the basis of their dominant physical features. The Negrito, the Proto- Australoid and the mixed group were such categories¹¹. The physical feature of the Negritos was very visible among the hill tribes of Kerala and it was predominant. The hill tribes like the

⁸ Forest dwellers were employed in the extraction of forest products, so each DFO was supposed to know the numbers of tribals belonging to the area under his jurisdiction.

⁹ Eyre and Spottiswood, *Report on the Census of British India – 1881*, Vol. I, London, 1883, p. I.

¹⁰ W. R. Cornis, *Report on the Census of 1871*, Madras Presidency, Vol. I, Govt. Press, Madras, 1874, p. 62.

¹¹ For further details of human species, see Indrani Basu Roy, *Anthropology: the Study of Man*, New Delhi, 2003, pp. 590-591.

Kadar, Paniyar, Uralis, Kanikkar, Malapandaram and Mutuvans are the best examples and categories of the Negrito type in Kerala.

The hill tribes like the *Mala Aryans, Karimpalans, Kurichiyan* and *Malavedans* have close similarity in their physical characteristics and appearance with the Proto-Australoids. They can be seen in many parts of the Malabar with distinct way of life. The tribal communities like *Uralikuruman, Kattunaikan* and *Cholanaikans*¹² are examples for the tribes who carry the racial elements of Negrito, Proto- Australoid and Mediterranean. Generally, to a great extent the Dravidian populations of South India are a clone of the Mediterranean shows their characteristics but not so specified in tribal groups. But mixed elements can be seen among some of these tribal groups.

Table 4:1

Table showing the Year and Categories under which the Tribes were enumerated by various Commissioners

Year of the Census	Categories	Name of the Commissioners
1881	.....	W. Plowden
1891	Aborigines	Sir Athelstain Baines
1901	Animism	Sir Herbert Riseley
1911	Animism	Sir. E.A. Gait
1921	Tribal Religion	J.T. Marten
1931	Primitive Religion	J.H.Hutton
1941	Tribes	M.W.M Yeatts
1951	Scheduled Tribe	R.A. Gopala Swami

Source: Census Reports from 1881-1951.

¹² K. T. Varma, *Pandathe Malayalakkra* (Mal.), Thiruvananthapuram, 2008, p. 42.

Table 4:2

Table showing the tribal population of Kerala as recorded in the census from 1901 onwards, is shown as
(Numbers in Thousands)

Region	Years					1951
	1901	1911	1921	1931	1941	
Travancore	87	83	97	129	133	27(?)
Cochin	7	4	5	5	5	5
Malabar	64	62	30	88	34	103
Total	158	149	132	22	172	132

Sources – Travancore and Cochin Census reports from 1901 to 1951

Tribe - As Community and Society

For generations the Tribal society or people live in a set of principles of behavior and manner. This style of their life and culture transforms them as a self sufficient society. Even though the social practices of each tribe are different, they functioned on the basis of a set of basic ideas and principles. Tribal values and norms were the basic tenets of their life pattern and behavior which forms the social institutions among the tribes. Though all cultural patterns have rational elements, its appearances were different from another. These rational elements can be seen in their knowledge and social systems and practices. The social behavior of tribal community was based on the concepts of ‘collective consciousness’¹³. This consciousness is different from one tribe to another and their life world. Each tribe has its own life world and rationality. Collective consciousness is the important feature of the tribal life. This was stronger and greater among the less advanced society where collective consciousness embraces the greater part of individual consciousness. Their entire life is bound to this consciousness. As a community living with a set of ideology and practice, have to follow certain taboos and the like. Most of the communities follow many restrictions on puberty and mingling with

¹³ See also Emile Durkheim, *The Division of Labour in Society*, New York, 1893, p. 39.

outsiders etc. The grown up girls were restricted their mobility and freedom in their puberty and not even allowed mingle with the male members of the community. They accept these restrictions as part of practice of life and belief. Thus such practices become their identities and for a great extent it saved them from the atrocities and ill treatments from the non tribes and others.

A tribe is a group of kinsmen or kinswomen united by a common ancestry. The tribal world is constituted by kinship based social organizations. These organizations have some functions and duties. A member of a tribe has certain duties and obligations to perform towards his/her kin. Each tribal groups or clan has a leader, usually the spokesman of the group and master of its ceremonies. This leader or the spokesman exercised power and sovereignty over the members of the community. Some tribes select their leaders or headman on the basis of their merit and efficiency but traditionally this will be an inherent right and practice among the tribes. Each tribal community used various terms to denote their spokesman. The headman of *Kurichiya* tribe was known as *Pittan*¹⁴ and the head of the Muthuvans was *Melvakk, mooppan* of Iravalans,. The head man settles the disputes within the tribe and acts as a messenger between tribal men and gods and also acts as the guardian of law and order. But with the coming of new administrative forms and transformations, their life also underwent changes. They forced to change their way of life and accepted the political authority of a territorial government, but their obedience and respect were mostly given to the tribal headman.

The tribal societies were functioned with their own social order and manner. Each society was a self sufficient social unit than a political or territorial unit. The concept of social consciousness and tradition was the base for the power and authority in each tribal society. Their archaic way of life helped them retain their distinct identity in the social, political, economic and religious domains of life. Most

¹⁴ *Ibid.*, pp. 128-129.

of the tribal communities followed clan system. The head of the clan controlled the functionaries and members of the clan. Tribal communities trace their parentage through either patrilineal or matrilineal line. Traditionally the tribes live in the hamlets, with their traditional modes of living. These hamlets had a limited area in which they live in small huts. Like the modern society the basic unit of tribal society was also the family. There was a close and cordial relationship among families. Patriarchy was the dominant system in each family. But matrilineal system was rare among some tribes¹⁵. L. A. Krishna Iyer has of the view that “the idea of family was a new comer in the field, and was said to be struggling with the clan for influence. Its entrance into the social life of the tribes as a patrilineal institution may be accounted for by the rule that, on marriage, a wife goes to her husband’s dwelling and makes her abode there”¹⁶.

In the tribal life the spokesman of the community acts as the spiritual and ritual leader. But in certain tribal areas this will not be the same person. The tribal headman or the clan chief was the architect of the tribal culture and the designer of the tribal beliefs, customs, and tradition of life people. He acts and functions like an agent of the god and decide the fate of the clan. He was the law giver of the community and nobody was daring to question the authority. But the tribal concept of authorities in many cases was not based on inheritance. Usually the eldest and the experienced member of a clan were selected as the tribal headman. The personal qualities were considered as basic requirements for a tribal headman. This revealed that the authority and power in tribal society was mostly dependent on the social consciousness of the tribal people. As the head of that community he maintains the rhythm and peaceful flow of the life. No one was ready to oppose the decisions of the headman because they may be out casted or expelled from the community if it

¹⁵ The Kurichiyas of Wayand followed matrilineal system.

¹⁶ L. A Krishna Iyer, *Social History of Kerala, Vol. I-the Pre-Dravidians*, Madras, 1968, p. 85

proved wrong.¹⁷ There was existed of council of elders in the hamlets which was in charge assisting the headman in the crucial or decisive matters. The nature of the tribal society or its molding was on the basis of social consciousness than individual consciousness. As a group of people who follows peculiar type of life, the social control was more severe there. Each and every members of the clan have to be followed the tribal rules and manners. Each of them was take care of each other and lived in a harmonious life. Thus they were given due importance to the individual freedom and wellbeing of the society.

The survival of the tribal societies over centuries was these strict belief and practice and their commitment to the others. This beliefs and practices were their pattern of life and tribal hood. The traits and culture conserved for generations. These traits separated them from the non tribal communities. The members of the community lived for the clan than for themselves. The tribal society was structured and sufficient and family was the key unit of production. They sacrificed their individual interest as an obligation to the society. Everything which was beneficial for the society was cultivated by it as something valuable. So they were considered the beliefs in morality, customs and rituals as sacred¹⁸.For instance most of the taboos which have a religious essence represent the idea of sacredness along with untidy and infectiousness ¹⁹. Never questioned its logic but silently follow all these.

The violation of social norms was never allowed and was punishable. The nature of the offence decided the nature and mode of punishments. If the offence is minor Fines were imposed and money was collected as fines and later it was spent for the common needs of the society. Mainly this money was used for the community programs of religious ceremonies and functions. Excommunication was

¹⁷ C. Gopalan Nair, *op.cit.*, pp. 67, 69.

¹⁸ L. A. Krishna Iyer, *op.cit.*, p. 75.

¹⁹ *Ibid.*, p. 101

the major or extreme punishment for major or unacceptable crimes the members of a tribal community. This was for a better living in the community obeying the social norms strictly. There were references on excommunication in *Kurichiya* community. Some of the excommunicated members of *Kurichiya* tribe were converted into Christianity²⁰. Few of them was later known by the name *Pathirikurichiyans*. The social beliefs and moral codes were interwoven with the god, man and society. In case of the breach of social norms in the community were considered as a sin against himself, society and god.

The caste system and untouchability was a notable feature of the Hindu society of Kerala in the earlier period. As the tribal people of Kerala didn't belong to the caste frame work of Hinduism, the untouchability among them was a matter of confusion itself. But there existed some sort of divisions and discriminations among the tribal communities. The tribes like *Kurichiyas* and *Kadars* followed untouchability with other tribes and that of non tribal community. Those communities who had followed untouchability shared some commonalities in their beliefs and practices. Like the caste structure in the Hindu societal social orders and caste hierarchical forms, some tribes also possessed such arguments and superiority complexes. The best example for this was the *Kurichiyas*, they considered themselves as the dominant tribes on other tribes and acted as *Malanamboodiries*, *Kari Nairs* and *Brahmins* among tribes. The Kadar community also considered them as the *Lords of forests*²¹.

As far as the matriarchical system of inheritance was concerned in tribes of Malabar region, the *kurichiyas* and *Kadars* have some affinities. Because of some notable contacts with the then ruling classes and authorities like Kottayam Raja and so on. C. Gopalan Nair clearly depicted this picture in his work. In one way or the

²⁰ C. Gopalan Nair, *op . cit.*, pp. 67-69

²¹ C. Gopalan Nair, *op . cit.*, p. 80

other they were enjoyed the status of *Nairs* among the tribes and thus followed an attitude of untouchability²². The *Kurichiyas* followed a custom that, they didn't consume food other than the *Wayanad Nairs*²³. This shows that the influence of the Hindu tradition and percolation of cultural and social changes into the tribal life. In a way it was the slow transformation of the life or an adaptation of the mainstream cultural pattern. Thus such groups started showing their superiorities over the other communities. Tribes of the region started showing the traits of the non tribal culture and practices among the tribes.

The measures to prevent pollution were seen as common among tribes in Kerala and it had some socio-health implications. Each and every tribes of the Malabar had practiced the process of pollution in one way or the other. It was a common practice of the tribes. This pollution was a part of their life and culture or it was an integral part of the social life of the tribes. For great extent such practice regulated or structured their life from birth to death. The practice of beliefs in ever aspects of life protected the tribal community from major and minor health and social issues. They practiced different forms of pollution viz. birth pollution, puberty pollution and death pollution. The taboos and pollutions were a social control mechanism for preserving individual and social health of a community. It was based on some moral principles. They were believed in much superstition in god. To them the universe itself was controlled by two opposite powers, the good and the bad. The good things guides good and better while the bad to bad and unfair situations. So the sacred or good thing should be protected for the coming generations. They were also followed the taboos and pollution related to food, days, animals, trees, birds and some materials.

²² *Ibid.*, p. 60

²³ A. Aiyappan, *Tribal Culture and Tribal Welfare*, Madras, 1988, p. 127.

Religious Milieu

The religious lives of the tribal communities are the day to day life of the people who lives in the world. It is not simply a belief but it is the process of adaptation in which they were transformed. Thus they are centered upon the gods and spirits in the life and life after death which defines their social and cultural activities on earth. So they worship specific gods for each and every activity of life²⁴. Thus they try to see the gods in all the elements which are close to their life such as food, drink, body and physical environment and so on. Hence the religious beliefs in tribal society were mostly social, cultural and environmental in character and forms of worship. The nature and natural forces and resources get much importance and become an inevitable part of their way of life; Rain, thunder, tree and sun etc became their gods. To them the forest was the abode of gods, believed in *forest gods* and clan deities and its rituals. Forest was soul as far as a forest dweller is concerned. The concepts of *vana devatha*, *vana lakshmi maladaivam etc* found in the religious beliefs of many tribes reflected their affinity with nature. *Malakari* as the deity of *Kurichiyas* represents the hunter god; hunting was one of the favorite games and a part of all festivals²⁵. The *Cholanaikans* had deep faith in *maladaivam* which was considered as the chief deity of their eco system. The *Kurumbas* considered the *karadaivam* as the deity of their agricultural economy. *Abba daiva* (God) festival of the *Kattunaickar*, mainly related with the harvest festival.

The reference on the idea that the tribal people had a specific objective to worship a particular deity was not seen anywhere. The religious ceremony of tribal people has many realms to explain the contexts and meanings. These were not a mere ceremonies, it was their bonds to the nature and kinsfolk for the better life.

²⁴ Pramod Misra, *Ecology, Culture and Health: A Primitive Tribe*, New Delhi, 2004, p. 280.

²⁵ C. Gopalan Nair, *op . cit.*, p. 60

This was vividly explained Edgar Thurston as the religious ceremonies were intended to depreciate the wrath of the deity rather than to seek benefits²⁶. Symbolism and the symbolic representation of gods was a remarkable feature of tribal faith. It has many meanings and understanding in their life. To them everything was considered as the representation of god, all the objects which is beyond their control was the form of god in a sense or the other. They worshipped it and obeyed it and followed it. This practice of culture can never realize to a non tribal community. Each and every member of the tribes knows the meanings of worship which connects them for generations. Thus it becomes an identity of the tribal culture and their specialty to a great extent. The chief of the *Aranadan* community was known as *chenmakaran* and their gods were in the names of *Aluroopam*, *Malachi Daivam* (Hill Goddess), *Thampuratti* (Mother Deity), *Pakal Muthappan* (Sun), *Iravu muthappan* (Moon) and the Hindu Pantheons like *Karimkali* and *Gulikan* etc. *Janmakaran* was the chief of *Cholanaikkans* and their gods were *Maladaivam*, *Vilakku Thampuratti*, *Kooli Maladaivam*, *Odakolli Daivam* (God of Health and remover of illness), *Thandanaadu daivam* and believed and worshipped zoomorphic spirits. *Mooppan* was the chief of *Kurumar* and *Vanijin* and *Kolkaran* were his assistants. *Sanchali karuppan*, a manifestation of God Siva and *Kali*, *Kanimar Pulidaivam* were their important gods. *Mala Muthan* was another community lived in the settlements called *Illams* and the several numbers of *Illams* were called *Morad* (hamlet). *Janamakkaran* was their chief. *Maladaivam*, *Pottanthiruvadi*, *Pullachi* and so on was major gods. *Kuttan* was the name of the chief of the *Paniyans* and their settlement was called the *Illams*. *Mariyamma* (god of Rains), *Kattu Baghavathi* (god of forest), *thampuratti*, *Kuli* or *Gulikan* were other gods.

²⁶ Edgar Thurston, and Rangachari K., *op.cit.*, p. 390

Ancestor worship is the core of the religious belief of the tribes. This practice or cult can be seen in universally. It is a universal form of religious expression, in a sense the facet of religious expression. Among the tribes of Malabar it was common. As the primitive people and as descendants or the people with a special way of life believe in immortality of the soul. So their religion may be consider as animism or spirit worship. They had a good faith in the life after death, which life decides the manner and behavior on earth. The tribal man is centered on his ancestors and all virtues and failures of his life are attributed to the intervention of their spirits. So they respect the elder members of the community and it becomes a cult and carries to the coming generations. The ancestor worship gives them strong family relationships and social controls. A common feature of the Malabar tribes is the strong faith in the great ancestors as their founding fathers. Through rites, offerings, and servitude, they admire the blessings and love on them. They acknowledge the spiritual power of the ancestors through the headman, oracles or the dancers of the clan. They are the intermediaries between the tribal people and the god. The oracle or dancers has a special seat and respect in the society. Most of the time the headman and the oracle will be the same person and he has to specific function and attendants to perform the rituals. Thus he escalates as the authoritative and powerful among the tribes and all other members follow his words as the wish of god.

The tribal community has great characteristic feature in their religion. The communal and sacred character of the religion is an exemplary attitude of the tribes. It differentiates the tribalism from the non tribes. The religion itself shows the style of the community and society. The religion is not stands for the individuals or the families but it for the society. Thus the actions and interactions of the members of the society will definitely reflect the safety and existence of the society. So the religious ceremonies are not indented to the personal gain but for the prosperity of the clan. Thus the religion, society and beliefs are interdependent in their life.

It is evident that the tribal religious belief has the environmental, occupational and historical dimensions in its forms and transformations. The tribal life is undergoing tremendous social and cultural changes in the colonial and pre colonial times. One of these changes is that they fast being detribalized. It was due to the accelerating process of culture contact, tribal people are forced to adapt non tribal ways of life and social values. Social transformations brought great impact in the tribal religion and culture. The 1901 Census of Madras has a reference of the hinduising or brahmanisation of the tribes with their contact with brahmanical customs and transformation of their spirit gods into Hindu gods.²⁷ The Dravidian population was originally comprised of tribes that had been transformed into castes by integration into the Hindu religion²⁸. Large scale transformations occurred in the realms of social systems and behaviors and tribal customs also undergone a drastic process of transformation²⁹ The names of the Hindu gods came into their life and cult as result of the influence of non tribal contacts and coming of their beliefs.

With the colonial invasion the material life of the tribes changed. The coming of the people of other communities and assimilation of new occupational culture and modalities changed the world view of the tribes. They started adapting themselves to the new world order and were ready to accept new modes of production and to modify their customer practices. All these led to new religious perspectives and the Hindu way of life was evident in this regard. The colonial power intensified the social changes in Malabar. The role of Christian missionaries and the conversion of tribal people, especially the *Kurichiyas*, *Paniyans* and *Kattunaikkans* was notable transformation of life.

²⁷ See, *the Census of India 1901 Vol. XI Madras Part I(Report)*, Government Press, Madras, 1902.

²⁸ Paul Hockings (ed), *Blue Mountains Revisited: Cultural Studies on the Nilgiri Hills*, Oxford University Press, New Delhi, 1997, p. 329

²⁹ Manjula Poyil, *Homage to the Departed A study of Funeral Customs among the Tribes in Malabar, Kerala*, other Books, Calicut, 2012, p. 223

Lifecycle and Forms of Celebrations

Like all other society, the basic unit of the society was family. According to the specialties of the tribal way of life single family and joint family system was existed. Both these families were lived in the hamlet. Each and every tribes of the Malabar region has their own style of marriage and family system. The tribal way of life has been given much importance to the marriage, as a society, they were very keen in the marriage functions and the selections. To them marriage was to sustain the clan and the community. Marriage and customs were highly profane and sacred. Most of the community was follow the Endogamy. It was for the protection and existence of community and its identities. Marriage and marriage customs itself shows the basic nature of the tribal groups and their perceptions. They were adamant to their culture and way of life. Most of tribes were not allowed the practice of Exogamy. But in the present times due to many reasons some of the tribes follow the Exogamy. Some of the Malabar tribes practiced or followed the *sororate* and *Levirate*. The life of the tribes like *Uralis*, *Ullatans* and *the Mannans* and *Malayarayans* and *Kanikkars* reveals such practice³⁰. The tribal communities like *Malapandaram*, *Kadar*, *Koragar*, *Paniya*, and *Aranadans*. *Paliyans*, *Kanikkars*, *Malayarayans*, *Malapulayas*, *Vishavans*, *Aranadans*, *Irulas*, *Kadars*, *UraliKurumans*, *Kurichiyas* and *Kattunaykkans* followed the monogamy³¹. But as in the case of the communities like *Muthuvans*, *Mannans*, *Ullattans*, *Uralis*, *Paliyans*, *Aranadans*, *Kurumbas* and *Urali Kurumans* in short the common marriage forms like monogamy, polygamy and poliyandry etc were prevalent in many of the tribal groups or the society. Like the modern society remarriages for widows, widowers and divorcees were existed among the tribal community. The utmost negligence and misconduct and behavior permitted the divorce cases in the tribes in certain extent.

³⁰ L. A Krishna Iyer, *Social History of Kerala, Vol. I-the Pre-Dravidians*, Madras, 1968, pp. 95-96

³¹ *Ibid.*

But it was not common among them. All the modes and methods of operations and consultations were carried in the marriages and the process of selections. They followed strict social control in the society and given much care and confidence to the children. The remarried couple has to take care of the children of their earlier marriage. *Mundakettuka* was a system existed in the *Eravaller* community in connection with the remarriage.

When we analyze their marriage systems of polygamy and polyandry, it was explicit that the females of polygamous communities show a higher survival rate than males but in the case of polyandrous the result was in reverse.³² As a community with specialty and identities, most of the tribal groups preferred polygamous than the polyandry. The polygamous marriage extends the strength of the community with increasing the number of the family members. As a community and a society, they preferred more numbers in their clan for collective strength and security. Thus they had given utmost importance to polygamy than polyandry.

Various types of tribal festivals and celebrations are seen among the tribes. Some of them are taken from the life of Hindus. These were occasions of great enjoyment and merry making. Most of the times of the Celebrations were either the occasions to express gratitude to God for the favors received from Him or in the harvesting time³³. It was a habit of the tribes in Malabar to keep the family shrines or the *Daivapura* in their premises. During festival days the priest or oracle was possessed by the deity and ancestral spirit who revealed some secrets related to the life expectancy of some people. If any member of the society violates these orders of deity, it may cause some illness in the society. So the members of the community followed these orders of the deity in their life and society for the betterment of life.

³² L. A Krishna Iyer, *op.cit.*, p. 1.

³³ Jose Boban K., *Tribal Ethnomedicine: Continuity and Change*, New Delhi, 1998, p. 108.

As a society, social bonds and community living was the basic feature of the tribal unity and practice. This unity was acquired by them was mainly through their gatherings and intermingling in the form of the ceremonies and festivals. Such festive occasions were the strength of the community life of the tribal people. Each and every members of the society thinks that, it was their duty and obligation towards the society and sustaining of the culture. Thus the people participates in these occasions with highly emotional and enthusiastically and ecstasy. From the early period itself, their living habit was the community life, because of the knowledge and collective consciousness or the collective security to take over the hazardous or adversities ahead of the life. These situations and circumstances are the basics for the conditioning of a tribe and tribal character in their life. As community with much vibrant, music, dance and songs were an integral part of their life from birth to death or even after death. The burial rituals and practices unfold this culture of their life. Many of the occasions and rituals are extremely connected with the songs and dances in their life cycle. All these rituals and songs unravel the cultural life of the tribes of Malabar. Leisure time songs, lullabies, *Thoongi pattu*, *Mayilattom pattu*, *Chonaan pattu*, *Poli kali*, *Kummi kali*, *Sollelam pattu*, *Kavara kali pttu*, *Mangalam kali pattu*, *Paliyar pattu* etc are some of the examples for their songs. *Kooth* and its various forms are the types of their dance forms. *Thera* and *Koll* were performed by the *Kurichiya* community with some specific objectives. Rituals and art forms play an important role in their life with definite meanings and implications. *Kali*, *Mariyamma*, *Malakari*, *Mala muthan*, *Malamkali* and so on were important gods which worshipped by them in favor of ailments from illness and to prevent the disease and other calamities. The structure of the society and their art and cultural forms

Shift in the Pattern of Life

The nature of the society and its culture was really determines the occupational pattern and the cult of particular society. Occupation itself designs and decides the pattern of life and mode of living. Thus the occupational shift or changes also defines the changes of the society. So the occupational transition of the people reflects in the transformation of the cultural patterns and social life and order. Overran of colonialism into the tribal areas and its life world transformed them into three occupational groups. (1) Food gatherers and hunters (2) *Punam* cultivators and settled agriculturists (3) bonded or agricultural laborers were the main category of the division. Based on the modes of subsistence major food gathers and hunters were *Kadar, Malasar, Malaimalasar, Iravalans, Aranadas, Alar, Malamuthans, Cholanaikkans, Kattunaikkans, Malavettuvans, Mannan* etc. *Mullukurumans, Kurichiyas, Irulas, Mudugas, Kunduvadiyans, Wynadan Kadars, Kalanadis, Karimpalans, Thachanadan mooppans, Ulladan, Kurumbas, Pathiyans, Mala Arayans* etc were the settled cultivators or *punam* cultivators. *Adiyans* and *Paniya* communities were bonded labors. Some tribes like *Urali kurumars* were artisanal groups'.³⁴

Basically most of the tribal communities were the hunter and gatherers. There were many hunter-gatherer communities existed in the Malabar region at different hamlets. Those groups of people were wandering in the forests in the summer season and made out a living by hunting and collecting minor forest produces. Thus Nomadic life was the main feature of these communities. Deforestation and strict forest laws threaten very survival and the nomadicity.

Settled agriculture or *punam* cultivation was the practice another group of tribes in Malabar. They were not cultivated the land for continuous period. The

³⁴ C. Gopalan Nair, *op.cit.*, pp. 49-52.

major crops were paddy, ragi, chama and millet .They were mixed cropping. Some of the tribal were efficient and good at collecting forest resources. They used a variety of digging sticks to dig the tubers. *Parakol*, *Kooran kol* were the names of the digging sticks used by the *Kadar* community. Honey collection was an important livelihood for them, *Kattunaikkar* were highly skilled in the collection of honey. A clear cut man and interface was seen here in the case of the *punam* cultivation practice. They knew the land and its nature, cultivated according to the demands and needs of the community with the coexistence of the nature. The hill sides and slopes were the cultivable land and area and moved from place to place. But the colonial administration banned this practice in India and in Malabar also. The communities like *Irulas*, *Mudugas*, *Kurumbas*, *Kurichiyas*, *Muthuvan*, *Kanikkar*, *Mavilar* and *Mullukurumans* were major *punam* cultivators and settled agriculturists. This cultivation was fully dependent on rain so that they prepared the land cultivation prior to the monsoon. They also burn bushes and forest areas for the cultivation and use these ashes as the manures. Shifting cultivation and one time cultivation, they were only coming back to this area after 8 or 10 years for *punam* cultivation. Variety of crops cultivated at a time, diversity of the seeds another feature. This was more eco friendly and ecologically balanced. The settled agriculture and its proliferation and the influence in the life pattern brought occupational shift in the socio-economic realm of the tribes. This elevation and transformation of the way of life reflected in their community life with more organizational set up and rigidity and complexity. They were transfused into an agricultural society, systematic and timely cultivations were started. They were started to work together and enjoyed the practice agriculture with lot of art forms and ceremonial festivals like *Kambala* dance in the life and agriculture life. Thus it was notable thing in their socio-cultural milieu into a new character. *Kurumbas'* *Punam* cultivation lands are named *Panchakkad* and *Kothukadu*. They cultivated various crops and seasoning the soil and the land. The mavilans harvesting of the *punam* is called *Nathandarukkal* and they use *Cherakathi* a special type of knife for cutting of this *punam*.

Kurichiar cut down the forests in the month of kumbham and keeps it for a period of one month. Since that, they burn this and use the ashes as fertilizers. *Kanni* and *Thulam* are the harvesting period. *Palthondi, Kottathondi, Marathondi, Chomala, Kootiveliyan, Maranellu, Gandakasala, Jeerakasala* etc were the paddy items they cultivated. Even today *gandakasala* and *jeerakasala* of the kurichiya's is the high demand paddy item in global markets.

The tribes had a great variety of weapon with wood and metals. *Koonthali, Kothu, Perakokka, Pakka, Raggi Kathi* is some of their important agriculture tools.

The life of the tribal community is entirely related to the forest and the land. Any kind of the changes in the land oriented life and their relation has reflected in their life. The changes in the occupational pattern or shift are best example for these transformations. The transformation of the life of the tribals can be seen in the hunter gather community and settled agriculturists after the so called developmental measures and improvements. As a nomadic community enjoyed full freedom and dependency on forests for livelihood and as an agriculturalist the land became the creator of their life. The most notable transition in this regard was that, the simple life into much more complex life in the later years with some new engagements and occupational shifts. The advent of colonialism and the beginning of new way of life and mode of the resource use pushed the tribal community to a new phase.

Pest Control

Each tribe had its unique knowledge of pest control. Green herbs as medicine were applied to pest control. *Vembu kanda* a sort of turmeric used as pest control, seeds of palm tree also used³⁵.

³⁵ P. V. Mini, *Gothra Jeevitham Mayunna Vamseeeya Mudrakal*, Kerala Bhasha Institute, Thiruvananthapuram, 2015, p. 61

Fishing

Fishing was their important occupation. For this, they mainly depended on the streams, rivers and the like water sources. They used traditional knowledge and resources for fishing. *Malavettuvar* community was the main people who were efficient and engaged in this occupation. They used different techniques for this purpose. Different techniques were used by many tribes to create fires. All the tribal groups who embrace the two rocks, which combine to form a fiery spark, are used the techniques to make fire. Apart from the rocks, the *mala arayas* used the pieces of iron and the charcoal for fire spark. *Cholanaikkans* used the *Aramulakathi* and *Kanikkars* used the *Chakkimukki* for fire. They were the experts in the production of essential goods items, such as household utensils and materials. Bamboo, Ira, Cane and jungle Sprouts were used. Mat making –with various leafs. *Vettakurumar* was known as the artisan tribe of Kerala and were highly skilled in hand Picture work and iron works also (making knives and sharpening the iron weapons), efficient in carpentry and basket making. *Manipullu*, one kind of grass in Wynad was used by them for basket making. They were the pottery makers also. The *Cholanaikkans* also used baskets for their regular use.

Ethno Medicine

Each tribe followed their style of treatment to deal with physical and mental illness. This was the knowledge that they gained through periodic experiments and observations. They used various tubers, leaves, roots and barks of the trees and juice of these for various illnesses. They were well acquainted with the medicinal plants and species even in the interior forests. They have even used the body and parts of birds and animals for treatments. Each tribe has its Hereditary Physician and ritualistic physician. *Kanikkar*, *Oorali* and *Adiyar* communities were notable in this regard. *Gaddika* of *Adiya*, *Muramkilukkipattu* of *Malayar*, *Velakkali* of *Paniyar* and

Chattupattu of *Kanikkar* were some of the magical ritual practices or performances³⁶.

Ethnic medicine is the medical knowledge, treatment practice and related beliefs of generations of tribal communities. The medical knowledge of a people is shaped by the socio-cultural context in which that community lives. Health is an organic and cultural phenomenon. Diseases among human beings were rare during the period of hunting and gathering forest resources. As we move towards modernity through every stage of cultural evolution, humans have acquired the immunity needed to cope with natural changes and survive. Until medical knowledge became part of the development of modern science, tribal people had gained the resistance to respond to adverse biological conditions. Each of the tribal people who lived in the forest had their own medicine and treatment methods to combat the various diseases. For them, each herb was some kind of medicine. There are different methods of treatment among tribal communities for a variety of diseases even today. The forest trees, which are herbaceous plants of many medicinal herbs, are used for medicinal purposes, including algae, likens, flowering, bark, and herbivores. A growing body of medicinal herbs, medicinal knowledge of growing places, topography, climate and use of herbal medicine is the cultural heritage of the tribal communities. In racial medicine, the interaction of nature with nature is constituted by medicinal knowledge. Tribal medicinal knowledge is transmitted from one generation to another. It is a process of evolution through empirical knowledge or practice.

There are specific times and occasions for collecting medicine from the forest. *Adivasis* collect herbs based on climate and environmental conditions. They collect herbs at midnight and at dawn. The *kanikkar* tribe uses *kadamantaro* plant for bee stings. The tribal physician specializes in the diagnosis of disease, the prognosis, therapeutic, prophylactics and the prevention of disease. *Plathi* is the

³⁶ *Ibid.*, pp. 44, 94-99

physician in *urali* community. Among the many tribes, the tribal chief and the medicine man will be the same. *Ghadika* is the magical ritual performs by the *adiya* community for ailments.

Treatment for Snake Poisons

Poisoning is one of the most important forms of treatment among tribes, especially for snake poisons. They identify the snakes with the nature of the bites. *Malayar* uses herbal plants like *anali vegam*, *padam churukki* for treatments. The *kanikkar* community uses the *Palakan* plant and *Keerikishangu*, *Garudakkodi*. Some tribes use the *Visha kallu* which is made with the essence of 101 herbal medicines. They very cleverly tackle the poisons of the insects. The *cholanaikkar* also use *Keerikishangu* for viper poisons. *Chilanthi kishangu* and the seeds of *Amukkuram* also use by *Kanikkars* and *Mudugas* for the poison of spider respectively.³⁷

Steam Treatment

They follow the steam treatment for various skin diseases. The *Kanikkar* were prominent in such practices.³⁸

The colonial intrusions brought about changes in the land use patterns and resource utilization, of the tribes and the large-scale development activities in later years also caused. The coming of modern medicine also affected their life styles and patterns. Many medicinal herbs used for treatment have gone extinct as a result of deforestation. There will never collect medicine for future treatments, it was common to go to the forest as needed. Tribal land encroachment and deforestation eliminated the valuable medicinal herbs and compelled them to turn to modern medicine. It is very clear that the present tribal life.

³⁷ *Ibid.*, p. 101

³⁸ For more details see the works of Jose Boban . K, *Tribal Ethnomedicine –Community and Change* (1998) and N. Viswanathan Nair, *Tribal Health and Medicine in Kerala* (2008).

Tribes and Bonded Labor System

The bonded labor system was one of the characteristic features of the Kerala society. The agricultural economy and mode of feudalism and its operations concretized the practice of bonded laboring in Malabar. As other slave castes in Malabar, the tribes also rendered their service as labors to the ruling class and authority. They were used by the local *rajās and jenmies* for their purposes. As devoted people or community, adamant to the beliefs and adoration to the systems and customs followed the dependency and means of livelihood. The *jenmies* showed a sort of authoritarianism over the tribes. The *Nilambur Kovilakam*, a petty ruler and land lord in the Nilambur area had exercised the complete power over the tribes who settled or lived in the Nilambur forests. Those followed a custom of the presentation of the forest products to the *kovilakam* and the *kovilakam* owned temple and deity of *Vettakkorumakan*. This was a sort of mental slavery to the authority. *Adiyans* and the *Paniyans* were the bonded labourers who were traditionally landless and subsist on agricultural labor. Mostly they were settled in the driest parts of the lands and totally dependent on wage labor in the paddy fields and dry lands of land owners. During the colonial times the *paniyas* were employed in the tea and coffee plantations as labors at a very low wage. *Kurichiyas* also served as bonded laborers. The *adiyans*, *paniyans*, *kattunaikans*, *Eravallars*³⁹ and *kurichiyas* were the agricultural labors and a group of people served in the state of bondage. But the tribes like *Uralikurumars*, even though the agricultural laborers not comes in the category of the people served in a state of bondage.

Different systems of bonded labor practice were existed in Malabar with different names. *Vallipani*, *Kundalpani*, and the like were more prominent in the Malabar region with regards to the tribal people. A. Ayyappan attests the bonded labor system in Malabar and *Aandukettupani* and *Adimapani*. The *Vallorkavu* or

³⁹ P. R. G, Mathur, *Tribal Situation In Kerala*, K. H. S, Trivandrum, 1977, pp. 97-98

Valliyoorkavu in Wynad was the main centre of this system. The name of the bonus which receives by the bonded labor was called *Kundal*. The tribes were taken from there as bonded labor with paying advance amounts and payments. Normally the bond was fixed for one year or till the next festival in *valloor kavu*. The tribes will be free from bond whenever they cleared the bond or arrears. In these systems laborer were considered as the private property of *Janmi* with many rights and privileges upon him and even the rights of exchange. The tribal workers were leased out by the *jenmies* to the persons who need the laborers with the payment of *Thalapattam* or *Nilpu panam*, and *Thalapattam* was varied according to the nature of the labors. The name and the process of documenting this action was *Mulamkaranam* because it was prepared in bamboo⁴⁰. Thomas Canan, a planter in Canara frankly hoped that the ‘savages’ who practiced *kumri* would be ‘more profitably employed’ on public works and plantations. The survey and assessment of wastes brought hill areas under an unprecedented degree of state control⁴¹. The bonded labor system also existed in the plantations. Later *Nair Jenmies* and *Mappila Jenmies*, *Mestris* also extended the bonded labor system. The tribals became wage labors in plantations and allied works. With the coming of these institutions mode of life was completely supplanted-internal colonization happened in the third and fourth decades of 21st century. Migration from Travancore and other parts of Kerala especially the Syrian Christians and they purchased and cleared the vast tracts of the

⁴⁰ See also A. Aiyappan, *Tribal Culture and Tribal Welfare, Madras*, 1988, p. 6; and A. Aiyappan, *The Paniyas : An Ex-slave Tribe of South India*, Calcutta, 1992, pp. 38-39. The ethnographic collections in the Madras Government Museum preserved five such bamboo documents No. 21/37 to 25/37.

⁴¹ Mahesh Rangarajan, *Fencing the Forest, conservation and Ecological Change in India's Central Provinces 1860-1914*, OUP, Delhi, 1996. p. 24

private forest lands. They also destroyed the natural forest cover of the region and converted former jungle lands into commercial plots⁴²

The missionary activities of various groups in the colonial period also caused the transformation of the life of the tribes in Malabar. Many of the communities had a direct impact in their life in this regard. The development or the changes in the administration of the colonialism in India and Malabar after 1930 had a great impact in all the fields. The interwar period and the post war period also witnessed the transformations in the life of the people. The best example for this was the Wynad Colonization Scheme and Madras Preservation of Private Forests Act (M.P.P.F. Act). The agrarian migration and the private timber merchants also had a great role in transforming the life and culture of the tribes and people in the post colonial period.

The foregone analysis expose the life and culture of the tribals of Malabar, and it tells us that they were live or lived in a specific manner and was entirely different from that of the non tribal community and societies. The advent of colonialism and the colonial law and policies completely shattered the life world of the tribes. The colonial revenue policies, economic policies and agricultural policies reshaped the life structure of the tribes in Malabar. The railway and plantations also caused for the miseries of the tribes during this time and since then and forever. They were alienated from their land for the first time and forever. Deforestation and transformation of the landscapes also destined their life. Colonial rule caused for the loss of their tradition, rights, occupation, food habits, medicine, and ritual and so on. They lost everything, the way of life and thus in short, colonialism destroyed or reconfigured the tribal socio-economic and cultural order in Malabar.

⁴² Rich Freeman, 'Folk Models of the Forest Environment in Highland Malabar' in Mahesh Rangarajan and K. Sivaramakrishna(Ed), *India's Environmental History colonialism, Modernity and the Nation*, Permanent Black, New Delhi, p. 56

Chapter V

Transformation of the Life World of Tribes

Colonialism and Transformation of Tribal Life

Tribal communities reside in different parts of the world. In the Indian subcontinent, they include Australoid, Caucasoid and Mongoloid. According to the 2011 census, the population of the scheduled tribe in is 484839. It is the 1.5% of the total population of Kerala¹. The colonial period gives emphasis to land revenue and forest policies and assesses its effect on the tribal life. After acquiring the power in Malabar, they changed the situation by strengthening their control over the Malabar. They started tightening its hold over the area with a central imperialistic/colonialist power. This colonial grip and imprints was visible in the life and activities of the people of Malabar. For consolidating their power and empire in Malabar, they came into contact with the Malabar tribes. In the early days of the colonial administration, they did not delve deep into the roots of the tribal problems as they showed any interest in their development. It was the period of consolidating the colonial power in India during the 19th century, but in the 20th century, were not interested in the implementation of a consistent policy for tribal development, a little attention was paid only to the welfare of the tribes in those areas where the colonial agents lived.² But the attempts made during this period failed to have any positive impact on the tribal economy. J.P. Hutton, the commissioner of census 1931, has summarized the impact of British rule on tribals in the following words, “far from being of

¹ P. V. Mini, *Gothra Jeevitham Mayunna Vamseeya Mudrakal*, Kerala Bhasha Institute, Thiruvananthapuram, pp. 29-30.

² Velayudha Saravanan, 'Economic Decline of Tribals in Tamil Nadu – 1947-2000' in Govinda Chandrarath (Ed.) *Tribal Development in India – The Contemporary Debate*, New Delhi, 2000, p. 218.

immediate benefit to the tribes, the establishment of colonial rule in India did most of them much more harm than good. In the beginning, the British didn't show any concern or they completely neglected the human ecology of the tribes. Prior to the advent of colonialism the life world of the tribals were different, some sort of consideration were given to them by the then rulers for the existence of the tribes in their lifestyles. They were not much exploited by the outsiders or the non tribals extensively. It could be argued that tribal situation and forest policies were only an extreme example of the colonial alteration of the ecology and environment. They consciously used the tools of colonialism for deforestation and other forms of environmental alterations to establish colonial sway in Indian subcontinent. Control of forest became synonymous with the political control of dissent³. The forests of Malabar were enriched with valuable trees and resources. The British control of Malabar forest directly affected the life style and culture of tribal people in this area. By a proclamation dated on 3rd July 1805, the administration of Malabar forest was shifted from Madras Government to Bombay Government. But it was transferred back to Madras Government in 1822⁴. The British were the administrators who brought for the first time the practice of tribal development or the modern principle of administration whether for colonial or other ends, for tribals. The Colonial Government had a vested interest in their policies and programs in India. For this totally transformed the life world of the tribes of Malabar through the introduction of new law and order which was primarily meant to keep them isolated and to take over their resources. The new legalities and the language and the language of the legality were also new to the tribes. Thus they gradually turned to the outside of the

³ David Arnold, "Disease Resistance and India's Ecological frontier, 1770-1947", in Mahesh Rangarajan & K. Sivaramakrishnan (eds.), *India's Environmental History: Colonialism, Modernity and the Nation*, Raniket, 2012, p. 150

⁴ Balan C. (ed.), *Reflections on Malabar: Society, Institution and Culture*, Kasargode, 2000, pp. 59-60.

world or the mainstream of social life.⁵ The colonial masters implemented and enacted these laws with an iron hand because they wanted to make it an awe experience to the people especially the tribes. The reason for that was, only through these laws can access the wealth of the forests.⁶

Until colonial intervention and even a little later, the tribes continued to live with an, internally 'self-subsistent economy' and also self-contented traditional system. The forest policies and strategies of British in Malabar were intended to obtain colonial projects. The commercial, military, economic and industrial imperatives of the British rule can be seen in their colonial forest policies. During eighteenth century, England witnessed Industrial Revolution and Agricultural Revolution. The British found that the forests of Malabar were the best sources of raw materials for British industries. The industrial needs of Britain were one of the first requirements for colonial forest intervention in Malabar⁷. The British depended on Indian subcontinent for timber to their industries. The Malabar Teak was widely used for the construction of ships as it was well known for its quality. After the intrusion of Britishers into the domain of the tribes, the infiltration of the non tribes also started. This infiltration shattered the autonomous nature of the tribal world and since then onwards it become a threaten to them permanently. Thus there emerged an interface between tribals and non-tribals.

Colonialism and the Transfiguration of the Material World

The British takeover of Malabar integrated it into the national market, and in due course which was integrated to the world capitalist system.⁸ This integration

⁵ P. K. Gopalakrishnan, *Notes on Our Development Experience-since Independence (1950-85)*, Trivandrum, 1985, p. 235.

⁶ S. C. Dube, 'Inaugural Address' in K. S. Singh (Ed.) *Tribal Situation in India*, Vol. 13, Shimla, 1972, p. 28.

⁷ Lawrence, *The Rise and Fall of the British Empire*, London, 2007, p. 6.

⁸ Bipan Chandra *Nationalism and Colonialism in Modern India*, New Delhi, 1979, pp. 3-4.

and connectivity of market economy radically transfused the traditional economic life of tribal communities. Regarding the forest conservancy and its importance, the colonial report said that: as regards the direct advantages of forest conservancy, it is of greater importance to produce on the smallest area, the largest quantity possible of useful timber, wood and other forest products⁹. In a report regarding the Nilambur plantation S. Eardley, the Inspector General of Forest during his Inspection reported that: these are commercial success and are likely to pay such good returns on the capital expenditure that this too will be recouped in the first rotation, for instance, gross revenue of about 60,000 was obtained last year¹⁰. These two reports revealed that the colonial argument of forest conservancy was aimed at the availability of more products for commercial purpose and to avail maximum revenue. The tribal people were totally transformed with the colonial market economy that continually eroded their life pattern and means of subsistence. As a result of this newly introduced economic and politico-administrative measures, caused to the mutation of traditional tribal economy.¹¹ The tribal space was irrecoverably opened up and their resources were exploited extensively. Such measures led to the categorization of land in Malabar as private land.¹² Thus colonial rule was based on the idea of private property that runs contrary to the experience of the tribal communities. The private use of land for profit thus replaced the early system of collective ownership among the tribals. For the first time tribal resources and land became commodities. The colonial policy of appropriation of land belonging to tribal groups compelled them to migrate to interior parts of the forest in search of livelihood. In the course of

⁹ SI No. 1967, Book No. F/29, . D. Brandis, F. R. S, C. I. E, *Suggestions Regarding Forest Administration in the Madras Presidency*, Madras, 10th January 1883, Madras, p. 4.

¹⁰ S. Eardley Wilmot *Notes on an Inspection of Some Forests in the Madras presidency, 1907-1908*, Calcutta, 1908, p. 1.

¹¹ V. S. Upadhyay, 'Special Problems of Minor Tribes', in L. P. Vidyarthi (ed.), *Tribal Development and Administration*, New Delhi, 1986, p. 40.

¹² *Report of the special officer for the Investigation of Land Tenures on the Recommendations of the Malabar Tenancy Committee*, May 1947, p. 144

their rule the British gradually transformed land ownership into private property and established the legal bases for capitalist production relations among landlords, tenants, village servants and agricultural labourers. But some references are there, that such system existed there before the Britishers. William Thackeray reported that the whole land on Malabar cultivated and uncultivated was private property and held by *Janmam* right which conveyed full absolute property in the soil, and the *Janmakar* or proprietor could dispose of his land as he pleased. The same idea was also given by Thomas Warden, Collector of Malabar from 1804 to 1816. In his view *Janmam* right of Malabar vest in its holder an absolute property in the soil. For example, Walker's report states that "this much is certain that the *Jenmam* possessed the entire right more tenaciously maintained."¹³ In the fifth report also it is observed "the land in general appears to have constituted a clear private property more ancient and probably more perfect than that of England:"¹⁴ William Logan came to the conclusion that, prior to the commencement of the British rule, no private property in the European sense of the term had existed in Malabar and that the Early English inquiries and the English courts had mistaken the *Jenmi* for a landlord of the European type and had endowed him with the full rights of European ownership, especially with the power of ouster, and that they had misunderstood and misconstrued *kanam* and other tenures.¹⁵ Thus the perception of the early British authorities in Malabar like Walker, Thakeray, Warden etc., about the land tenures and agrarian relations in Malabar had completely upset the traditional *Janmi* system. Finally, it has to be admitted that British rulers in Malabar supported the rights of private land holding families and executed revenue agreement with them and treated

¹³ As quoted in *Report of the Malabar Tenancy Committee – 1927-1928*, Vol. I, Madras, 1928, p. 6

¹⁴ *Ibid.*

¹⁵ *Ibid.*, p. 11

them as proprietors following the policy of permanent settlement of Cornwallis.¹⁶ In fact, the old property relations in respect of land were changed to suit the pattern of individual ownership for collecting land revenue. The legal conception of absolute private property of the British eroded the traditions of private ownership and sharpened tension within the tribal society.¹⁷

The colonial strategy of transforming tribal people for colonial aims was also revealed when they tried to shift tribal method of cultivation. Traditionally tribal people practiced shifting cultivation which in British records mostly used the name *kumari or tokkul* cultivation¹⁸. Britishers changed the land use and authority in the possession of the land to the tribes. They introduced or compelled them to hold blocks of land; they were not willing to take it. The *kumari* cultivated areas were surveyed by the Britishers and gave *pattas* to this land. They introduced new colonial rules and regulations to prevent tribal's land use and mode of land of use. The unfamiliar impositions created much difficulty to the tribes. Their traditional practice of cultivation was strictly prohibited and the colonial dissatisfaction regarding this method of cultivation was explicitly revealed from the revenue records¹⁹. The report said that the only really successful method to deal with these men is to utilize them as forest servants. They are excellent axe men and no better collectors of minor forest products can possibly exist²⁰. Regarding the shifting

¹⁶ *Permanent Settlement Regulation*, Regulation XXV of 1802, Fort St. George, dated, 18th July, 1802

¹⁷ E. K. Rjan, *Impact of Socio-Economic Changes on Tribes in the Wynad in the Colonial and Post –Colonial A Study with special reference to Kurichiyas*, un published PhD Thesis submitted to the University of Calicut, 2013, p. 241

¹⁸ Go. No. 659, 8th July 1887, *Government of Madras, Revenue Settlement of South East Wayanad*, 1887, p. 16, Go. No. 827, 12th October 1889, (Revenue), *The Final Report of The Special Assistant Collector, Nilagiris And Malabar, on The Introduction of –In to The Remaining Five Amsams of Malabar-Wayanad Reviewed*, Madras, 1889, p. 16.

¹⁹ Go. No. 659, 8th July 1887, *Revenue Settlement of South East Wayanad*, Madras, 1887, p. 16.

²⁰ *Ibid.*

cultivation in the forest of Wayanad, Logan remarked that, the whole of Wayanad plateau was covered with dense forests, the greater portion of which has been swept away by the system of cultivation known as *tokkul* or *punam* in Malabar²¹. The colonial discontent regarding the entry of tribals in forest revealed from the colonial official reports as following. The *Kurumbars* in Chedeleth and Kudirakode reserved lands have roamed about the country doing infinite damage to the forests with very little commensurate advantage to themselves²². On 12th April 1870 the Government banned shifting cultivation from the forests of Malabar.

During the colonial period the tribal people lost their right in their land because of the new restrictions on land and the lands were assessed. Thus the tribes were unable to prove their records to assert their right over the land. In Malabar the Britishers introduced the same public land revenue system applied in other parts of India. In 1802 Major Macleod, the first principal collector of Malabar, raised the rate of assessment and the province rose in revolt.²³ Such measures totally shattered the rational world and relation of tribal people with land especially the *Kurichias* and *Kurumans* of Wynad. These were totally against the landed tribal communities in Malabar and their pattern of life. The British rules and regulations transformed the nature of ownership and the bonds to the land. Their system of law and revenue policies changed the land into a commodity, a saleable commodity. With the expansion of the colonialism in various faces began to take the lands of the tribals in the form of encroachments. The encroachment of non tribal people into tribal areas compelled them to sale their land to non tribal people. The colonial masters encouraged these actions to open up more and more area to new scientific invasions. The administrative reconfigurations in Malabar caused the detachment of the tribals in their economic engagements. The colonial policies and preferences changed the

²¹ William Logan, *Malabar Manual*, Vol-I, II, New Delhi, 1995, p. ccc XXXVI.

²² *G. O No 827, Revenue Department, Madras*, 12th October, 1889, p. 16

²³ *Guide to the Records of the Malabar District – 1714-1835*, Vol- I, Madras, 1936, p. 7.

cultivation patterns and areas of the Malabar tribes. Once they were free enough to engage in traditional pattern of agriculture in the hill sides with variety of crops and seeds. But with the coming of the colonizers into the territories, their rights over the forest were curtailed and they were transformed into bystander to look after the forests for British capital interests.²⁴ The opening of the plantations in mountain sides and hillsides was an irreparable event in the evolution tribal life in the history Malabar. Advent of plantations and plantation industry forced them to move to the interior parts of the forests. It was a primary and foremost cause for the detachment tribal world from their native world. The loss of their livelihood and the break of age old customs and practices an integral part of the life. This was the beginning of their sufferings and transfusions to unknown world. Tribal communities were hunter-gatherer, forest-gathering, food-gathering societies that lived on and off in the wilderness, permanently. Their traditional practice was known as *punam* cultivation and usually they were prepared land for cultivation. The surveys and explorations of the Britishers found the foothill of the mountains as suitable place for resources for the British firms. The mountains were reshaped with cash crops with plantation landscapes. In the 19th and early 20th Centuries the foreign capital investments in plantation were an emerging phenomenon.²⁵ Silviculture, which means cultivation of forest trees as a strategy, was experimented with, after 1840 to cope with timber shortages in India. Teak, eucalyptus and fuel wood plantations were established, mainly in four areas in South India. Conolly, the Collector of Malabar, took a personal interest in the foundation of famous teak plantations known as the “Nilambur plantations” in the Malabar district. From 1843 to 1860, Chathu Menon, a local official, managed the Nilambur plantations, planting more than a million teak

²⁴ T. Madhava Menon (ed.), *A Handbook of Kerala*, Vol. II, Trivandrum, 2002, p. 726.

²⁵ K. K. N. Kurup, *The Process of Tribal Land Alienation and Disempowerment in Wynad*, Bangalore, 2006, p. 2.

plants on 1200 acres of land.²⁶This opening of plantation economy brought far reaching impact on agrarian structure of Kerala.²⁷Timber-tree planting in South India achieved the expected results. The Britishers overruled the following adverse circumstances firstly drought and unfavourable seasons which affected the health of the trees. Secondly, due to failure to regulate the respective rights of use of the government, zamindars, private owners, and farmers in the forest areas set aside for plantations, the Madras government was unable to evolve the efficient protective system required for the development of the plantations.²⁸ Thirdly, the insalubrious jungle surroundings of the plantations made it difficult for even the most enthusiastic foresters to properly carry out their tasks. Finally, there were difficulties in securing the labour of the tribes, who mistrusted the forest department because it prohibited shifting cultivation.

Prior to colonial intervention, forests were mainly owned by local rajas and on the West Coast; they were controlled by traders from several groups, such as *Chettees* and *Moplabs*. Besides, the tribes who inhabited the hill forests were practicing shifting cultivation, paying a nominal tax to hill chiefs. Initially, forest land for plantations was taken on lease and with the establishment of plantations and consequent imposition of restrictions interfered with the tribes' customary access to forests for shifting cultivation. The colonial intervention also affected the profits of forest owners and traders. Naturally the people turned against the British policies of plantation annexations started igniting fires and other mischievous activities by

²⁶ R. S. Brown, *Revised Working Plan for Nilambur Valley*, Government Press, Madras 1929, pp. 59-60. C. A. Innes, *Madras District Gazetteer: Malabar and Aujengo, Vol. I*, Government Press, Madras 1908, p. 245. H. Morgan, *Forestry in South India*, Higgin Bothems, Madras 1884, p. 9.

²⁷ K. Saradmoni, *Emergence of a Slave Caste-Pulayas of Kerala*, New Delhi, 1980, p. 114.

²⁸ *Board of Revenue Proceedings*, 8 April 1879, Book Number, 919, p. 3171, *Board of Revenue Proceedings*, 7 December 1876, Book Number 3096, Forest Number 105, p. 9786.

them. The policy was changed after 1870, which is in place artificial plantations; conservation of natural forests was started. This policy shift was known as the “block system”. One important feature of this system was the total control over the forest and foresters. Beddome, conservator of forests had clearly depicted the picture of this control and its forms in this words. “To carry out this block system the forest must be declared a strict reserve, and the forest officer must have complete control over it: grazing cannot be allowed under reboisement, and no one can be allowed up in the forests except with permission”.²⁹ Such new systems were intended to extend their sway over the forests. They blamed the local people’s use of the forests as irrational and destructive for making this kind of intrusions.

The authority was suspicious towards the use and misuse of the forests of the mountain slopes of the area by the land owners and the tribes. To them the forests were a source revenue generating resource. So that the administrators had been very careful to the actions of the owners and the tribes whether they people will destroy them for immediate profit and the tribes with their traditional cult of agriculture. The statement of the Malabar district sub-collector reveals their attitude and plans towards the forests and the forests people: “I anticipate that if our ghat forests are destroyed, we shall have here a change for the worse in climate – eight months of arid drought succeeded by four months of rain, deluges, and floods. I am therefore also of the opinion that it would be unwise to stand still, and that an effort is needed to re clothe the hills with timber, in place of that of which this *punam* system of cultivation has denuded them”. These reports and suggestions by the implementing authorities gave boost to the policy makers to inaugurate systematic intervention in the resources and the mode of resource utilities. A state operated green cover was thus started. The net result of these operations was the total takeover of the private

²⁹ B. R. P, 29 July 1879, B. N. 2141, p. 7219, This means natural forests were divided into several blocks and the logging was timed according to the age of the different blocks. B. R. P, 3 October 1876, B. N. 2493, F. N. 36, p. 8313.

forests by the state to the implementation of the conservancy policies. The conservancy policy was intended to protect the climate resources and there by consolidate the power and nature. The period between 1840 and 1882 witnessed the massive transformation of the south Indian forests and Malabar forests in particular. The colonial policies shaped the fate of the forests and the landscape of Malabar, the limited intervention turned into massive intervention. The global conditions and the position of England in that time was also a key factor in shaping the nature of the forests and the people- the establishment of plantations- the state plantations. For this they formed many regulations and attachments to take over the control of vast natural forests.³⁰ In this context, desiccations' ideas facilitated state control by stressing the connection between forest conservation and the protection of the irrigation sources on which the welfare of the agrarian economy of South India depended so heavily³¹. As a result of these policies and implementation programs, the second quarter of the nineteenth century happened to see the beginning of large scale plantations in Wynad. The Wynad taluk was one of the jungle and densely forested area with various hill tribes and plain tribes. The colonial policy makers realized the strategic and profitable and favourable conditions of Wynad and its adjacent territories of Mysore and Coorg. Mananthavadi witnessed the establishment of regular coffee estates during the period between 1830 and 1840.³² This brought many effects on the life and culture of the people of the area, a new beginning. It totally destructed the traditional rural co-operative work pattern and conversion of the people into cheap labour force.³³ The change of the life world of the tribes in their land by the colonial apparatus created many loses and transitions in their life

³⁰ V. M. Ravi Kumar, 'Green Colonialism and Forest Policies in South India, 1800-1900', *GlobalEnvironment*5, 2010, pp. 101-125

³¹ *B. R. P*, 24 July 1875, B. N. 2065, F. N. 147, p. 6051.

B. R. P, 3 October 1876, B. N. 2493, F. N. 36, p. 8313.

³² C. A. Innes, *op. cit*, p. 501

³³ George M. Foster, *Traditional Culture and the Impact of Technological Change*, New York, 1965, p. 25.

patterns.³⁴ Thus they become an inevitable part of this larger system of colonial and capitalist forms of exploitations and they were turned into absolute poverty. It was the evolution of the life of the tribes of Malabar into a dependant people for their coming generations too. Thus it became an adjective for their sustained problem of poverty; the history of the colonial exploitation is the history of tribal poverty and misery.

Colonialism and Capitalism-Malabar in Transition

The commercial interests of the British led to the socio-economic transformation of Malabar. Every resource was a potential source of revenue. They introduced a new system of administration, an array of new taxes, an army of petty officials and establishment of a central police and judicial system all contributing to the deterioration of the authority of tribal elders. The measures to raise the revenue in Malabar were introduced by Thomas Warden, the third principal collector of Malabar. Exorbitant taxes and rents were imposed on land and it was the poor peasants and tribals who were hit hard. The new taxes were realised ruthlessly by the zealous agents of the local authority and the traditional system of land control broke down. Not only were the hereditary tribal chiefs deprived of their land but the tribal cultivators too lost their land to the new comers. The pauperised tribal peasants were not merely reduced to the status of tenants at-will, share croppers, and agricultural labourers but were also enslaved. T.H. Baber has mentioned the despicable conditions of the *Kurchias* in his minutes that; 'they were deprived of their caste by cutting off their lock of hair (the distinguishing mark of their caste) by making them eat prohibited food and by otherwise distinguishing and polluting them'. Such practices have helped to generate a feeling that even their identity too was in danger. During the British period alienation from land due to faulty

³⁴ K. S. Sahu, 'Health of the Tribes: Issue and Perspective' in M. Viswanathan Nair, *Anthropology of Tribal Health and Medicine in Forest Environment*. Kozhikode, 1995, pp. 108-109

legislation pertaining to forest land and lack of understanding of tribal social organisation were responsible for tribal uprisings.³⁵ The colonial policies in India were meant to increase their revenue in India in all the way. Thus the revenue settlement pattern of Malabar and Wynad in particular was also a part of this policy which made many issues in their economic life. The expose of the area into a global apparatus created the destitute. The restructuring of the revenue administration, the enhancement of revenue and the coming money oriented economy created many problems to the tribal communities. The *Kurichias* of Wynad were one of the communities who were much disturbed group in the transition of the revenue payment in cash instead of kind.³⁶ The tribal communities were against the unified legal ownership system and taxes in cash. The new system of the revenue and tax in the tribal area gave opportunities to the coming of non tribals into their domain such as the money lenders and traders. This was the fact how the tribals were alienating from their land, culture and the pattern of life in the new administrations. The tribes were very unrest and suffocated against the changed socioeconomic condition which was imposed upon them by colonizer. This unrest was out flowed in the form of attacks in different parts of Malabar. Thus the authorities like The Earl of Mornington, the Governor General³⁷, were in favour of taming the tribes or oppressing them for safeguarding the colonial interest in Wynad particularly and Malabar in generally. This was a message to the other tribal communities too. So the tribal communities were transforming into a new style of living situations under colonial rule.

Development of Industries, Technology and the Tribes

The colonial administration viewed the forests as an income generating site in India. The policy of the colonizers towards the woods and the people who

³⁵ E. K. Rajan., *op.cit.*, p. 244

³⁶ C. K. Kareem, *Kerala and Her culture: An Introduction*, Trivandrum, 1971, p. 71

³⁷ See the *Correspondence of Marques Wellesly*. . .

nurtured and protected them was very explicit in their changing attitudes in the latter half of the 19th century. The only concern of them in forest was the source of revenue and economic management. The reports of the Malabar collector to the Board of Revenue shows that, in the year 1837, 33,000 teak logs were exported from Malabar. This report itself shows how they managed the forests. Along with the expansion of colonialism in India and the growth of British power in the world in the early decades of the 19th century witnessed the expedition of Indian forests especially in Malabar. The clearing of forest in Malabar was to meet the demands of industrial development of England. The demand of the navy was the prime concern, and the court of directors and government had close connections to the supply of teak timbers from Malabar.³⁸ The appointment of a committee to enquire into the status of teak forests in the Malabar and Canara districts by the Company government was the immediate result in the development of such manner. The reports of the committee pointed out the over exploitation of the forests and suggested some restrictions. Thus the company compelled to rethink the use of the trees and started to restrict the cutting of teak trees in the West Coast forests.³⁹ The reports of the Clementson, the then collector of Malabar in 1838 highlights the deforestations and over exploitation of the teak and other forests.⁴⁰ The plantations were divided into thirteen blocks and covered about 15,000 acres. These woods were mostly used as the raw materials for British industries. The table given below shows the area of teak plantation and Area planted annually arranged up to 31st March 1886 in colonial Malabar.⁴¹ The planting of teak in Malabar was mainly started for the marine industry, railway, mines, and public works.

³⁸ Ribbentrop, *Forestry in British India, op. cit*, p. 68.

³⁹ Stebbing, *The Forests of India, op. cit*, p. 72.

⁴⁰ *Ibid*, p. 75

⁴¹ William Logan, *Malabar*, Vol. 2, New Delhi, 1995, p. cccI xxviii

Table 5.1

Table showing the details of forest transformation of the Malabar into the teak planted area up to 1886.

I		II		III		IV	
Years	Acres	Years	Acres	Years	Acres	Years	Acres
1842	31	1853	56	1863	81	1873	141
1844	105	1854	92	1864	122	1874	160
1845	61	1855	100	1865	57	1875	161
1846	111	1856	79	1866	129	1876	149
1847	119	1857	36	1867	119	1886	108
1848	183	1858	43	1868	145		
1849	135	1859	40	1869	54		
1850	132	1860	40	1870	74		
1851	147	1861	174	1871	46		
1852	39	1862	50	1872	208		
10 years	1063	10 years	710	10 years	1035	5 years	719
Yearly Average	106		71		103		145

The above table gives the description of the transformation of the area into the planted area of more than 1000 acres of land during the period between 1842-1852 and 1863-1872. This also shows that the yearly average of the transformation of the area into plantations as above 100 acres. More than 3527 acres of land was covered with plantations within this time and the fourth part of the table indicates the speedy transformation and transfiguration of the area in a span of five years.

Table 5.2

Table showing the statistical Report of the Timber export from the Madras Presidency, 1882/1883–1946/1947 (Rs. in lakhs)

Year	Value	Year	Value	Year	Value(in tons)
1883/1884	18.45	1900/1901	20.58	1917/1918	NA
1884/1885	14.66	1901/1902	15.80	1918/1919	NA
1885/1886	NA	1902/1903	NA	1919/1920	NA
1886/1887	18.17	1903/1904	NA	1920/1921	100
1887/1888	16.36	1904/1905	NA	1921/1922	NA
1888/1889	16.29	1905/1906	NA	1922/1923	NA
1899/1890	19.00	1906/1907	NA	1923/1924	12.73
1890/1891	19.30	1907/1908	NA	1924/1925	246.78
1891/1892	NA	1908/1909	NA	1925/1926	223.83
1892/1893	NA	1909/1910	10.48	1926/1927	231.63
1893/1894	19.97	1910/1911	17.33	1927/1928	16.8
1894/1895	17.11	1911/1912	18.68	1928/1929	102.25
1895/1896	18.22	1912/1913	20.99	1929/1930	282.33
1896/1897	NA	1913/1914	23.35	1930/1931	136.25
1897/1898	16.06	1914/1915	7.29	1931/1932	87.93
1898/1899	13.81	1915/1916	14.35	1932/1933	NIL
1899/1900	2.55	1916/1917	15.60	1933/1934	48.18

Source: Madras Administration Reports and Administration Report of the Forest Department of the Madras Presidency (various years) N.A not available.

The colonizers neglected all the existing rules and rights in Malabar and monopolized the timber trade. The increasing demand for the timber in England for their military and naval purposes resulted the deforestations. The emergence of England as a great naval power in the world and their engage in the wars demanded the construction of huge vessels and the making of guns and other war materials with the excessive of the timbers. The British found that the timbers in the Malabar were the best in the world for their purpose. So they started the controlling the utilization of forests by others. They completely controlled the use and utilization of the forests of Malabar. Along with the revenue settlement policies and programs,

they started showing keen interest in the preservation of forests for their future utilities. But the British were not well versed in the forest management and maintaining the resources, used the skill and knowledge of the Germans for establishing the Imperial Forest Department in 1864. Thus it was with the German knowledge and applications which entirely transformed the structure and sentiments of the forests. The introduction of forest acts and forest laws were such kind of an application of knowledge for their imperial interests.

Management of Forests and Appropriation of Resources

It was with the Indian Forest Act VII of 1865, they started the execution of proper forest management and a monopolistic approach to the forests. Comprehensive legislations were also implemented with the introduction of Indian Forest Act of 1878 and shaping of the operation of forest management was started since then. In effect all these were for ensuring the absolute state monopoly over the forests. When the acts empowered the imperial powers over the forests, started the dwindling of the rights of the peasants and tribes in the forests. The colonial rules and regulations started the curtailing of their access to the forested areas and the forest produces. Thus this was a new beginning in the nature and use of Indian forests and their subsequent histories. The forests were classified according to the utilities and profit abilities of forests, the forests were divided into reserved and unreserved or the forests were classified as reserved and protected. The reserve forests were more commercial valued forests and started the working of such forests in that line.⁴²

⁴² *Ibid.*, p. 23

Table 5.3

Table showing the area of plantations and cultural operations undertaken during the year 1887-88.

Province	At commencement of the year				Added during the year				Excluded during the year				Balance at close of the year			
	Regular plantations	Cultural operations	Taungyas	Total	Regular plantations	Cultural operations	taungyas	Total	Regular plantations	Cultural operations	taungyas	Total	Regular plantations	Cultural operations	taungyas	Total
Madras	18209	3850	31563	53622	802	489	1061	2352	...	...	26	26	19011	4339	32598	55948

Source: *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88*, Regional Archives Kozhikkode, p.27

Regular plantations were increased by 802 acres and cultural operations by 489 acres. The topes, of which there were 1645 covering of an area of 32598 acres, were all maintained⁴³.

The formation of the reserve forests and the economic control of the reserve forests started affecting the normal life of the tribes in the regions. In a sense, it was clear that the tribal community; lost their hold over the lands and resources once they enjoyed and embedded their life. Their claims and rights were lost and disappeared and became mere subjects of the rulers. European system of the surveying and documenting the resources and the area of ownership and ownership right rules, provisions forced them to present the documentary evidences to prove the occupation of lands where they live since time immemorial. This was very clear and evident in the shift or break of the age old system of forest use and reliance. The

⁴³ *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88*, Regional Archives Kozhikkode, p. 28

man and nature relations escalated to a new level, with the opening of the forests and the contract systems. The colonial authority created new class of persons, the contractors who had been working for safeguarding the imperial interests. They were fully free to use and make use of others. An important shift in this regard was that the use of labours, the own labours. Thus a new culture was started to percolating into the forests and the beginning of new human ecology in the tribal area. This shift was firstly affected the hill tribes because they were lived in forest oriented life. But with the opening of the forests for commercial purposes, they were converted into engaging the activities of collecting Minor Forest Produces (MPF). The non tribal communities exploited them in all the ways. Tribal areas became vulnerable to the incursion of the land grabbers and money lenders for exploiting the unawareness and unhealthy situations of the tribal people for a long period.

The Forest Acts in 1865, 1878 and 1882 once again strengthened the colonial interest on forest and become more rampant. The acts defined the colonial interest on forests do not mean protection of forest in its true sense but a part of the systematic exploitation of forest⁴⁴. Under Section 35 and 36 of the Act of 1882, the government made rules to carry out the provisions of the act by restricting the natives to cut timber from the forest⁴⁵. So the tribes were not allowed to bring a felled timber from forest even for making hut or firewood. Only a person who possess certificate of registration had the right to take timber from the forest. The tribal people were not aware of these legal formalities and therefore they were excluded from the forest. The controversy over the provision of the Act prevented the passing of the Act in Madras Presidency. The Madras Forest Act (MFA) defined the rights of government over forest in 1882⁴⁶.

⁴⁴ Book No. M/63, *The Forest Manual*, Madras, 1906, p. 204.

⁴⁵ *Ibid.*, p. 204

⁴⁶ Book No. M/63, *The Forest Manual*, Madras, 1906, p. 204.

Table 5.4

Table showing the Statistical representation of the Amount of forest revenue collected from the Madras Presidency, 1868–1877

Year	Forest revenue (in £)	Forest revenue (in rupees)
1868	42,966	429,660
1869	39,133	391,330
1870	49,855	498,550
1871	33,979	339,790
1872	41,886	418,860
1873	41,854	418,540
1874	44,983	449,830
1875	36,354	363,540
1876	42,772	427,720
1877	41,476	414,760

Source: Statistical Abstract Relating to British India from 1867/1868 to 1876/1877.

The colonizers were eager to exploit the resources of the forest and so they kept the natives away from the forests. Because they argued that the natives misused the forests. But it can be assumed that the colonial argument regarding the misuse of forest by natives were baseless and unacceptable. The colonizers had cut large number of trees for the purpose of railway, military and public works from forest and kept the natives away from forests. In fact the Malabar forest was largely 'misused' by the colonizers for their own advantages.

Table 5.5

Table showing the Statement of the sleepers supplied for railways, 1925/1926–1940/1941.

Year	No. of broad gauge sleepers	No. of metre gauge sleepers	Total no. of sleepers.
1925/1926	13,451	13,593	27,044
1926/1927	17,735	35,951	53,686
1927/1928	21,306	13,138	34,444
1928/1929	37,646	18,048	55,694
1929/1930	41,234	13,733	54,967
1930/1931	35,000	52,600	87,600
1931/1932	35,764	29,512	65,276
1932/1933	N.A	N.A	66,262
1933/1934	23,475	33,362	56,837
1934/1935	1702	26,501	28,203
1935/1936	30,270	36,472	66,742
1936/1937	29,776	40,014	69,790
1938/1939	30,000	17,000	47,000
1939/1940	30,000	17,000	47,000
1940/1941	30,000	17,000	47,000
Total	377,359	363,924	807,545

Sources: Madras Administration Report and Administration Report of the Forest Department of the Madras Presidency (various years).

The implementation colonial forest policies in Malabar were against the interests of tribal people which directly affected the daily life and culture of the tribal community. For the effective working the Act of 1882 declared the forest to be reserved and state forest⁴⁷.

⁴⁷ SI No. 1967, Book No. F/29, . D. Brandis, F. R. S. C. I. E, *Suggestions Regarding Forest Administration in the Madras Presidency*, Madras, 10th January 1883, Madras, p. 6.

Table 5.6

Table showing the Reserve forests in Malabar under Madras Forest Act of 1882

No	Name of Forest	Year of Notification
1	Valayar Reserve	1883
2	Old Amarambalam	1884
3	Nellikunnu	1886
4	Chennat Nair Reserve	1887
5	Chatambrai	1895
6	New Amarambalam	1898
7	Silent Valley	1914
8	Attappadi	1900-1914

See also; C.K.Karunakaran, *Keralathile Vanangal Noottandukaliloode*,p.107

13,428 acres of forest were declared reserved forest in Palghat division and in Nilambur division 15,558 acres of forest were transformed to reserved forest⁴⁸. State forest and Reserves under Forest Officers in Malabar included 46,720 Acre in 1883⁴⁹.The Section 25 of the Forest Act (1882) declared: If the rights of colonial masters and private persons in such lands have not been looked into, hold and recorded, in the way in which the authority assumes that, it to be sufficient, then the procedure prescribed by the act will be applied⁵⁰. The Act therefore demanded the settlement with the government over the claim of the forest land. But the tribal people had only customary rights in forest and they did not have any official or legal claim in forest except the *pattah* (right to cultivation). Their right over the land they enjoyed was completely taken away from their hand. Moreover they were unaware of retaining their right to cultivation in forest by the legal procedure declared by the government. It was the genesis of land alienation of tribal people in Kerala. The following table shows the area of reserved forest in 1892-93 in Malabar.

⁴⁸ SI No. 1967, p. 16. *G. O. No. 1445*, Madras, dated 18. 10. 1872., and SL. No. 1967, p. 16. *G. O. No. 1261*, dated 03. 10. 1874

⁴⁹ SI No. 1967, Book No. F/29, D. Brandis, F. R. S. C. I. E, *op.cit.*, p. 6

⁵⁰ SI No. 1967, Book No. F/29, D. Brandis, F. R. S. C. I. E, *op.cit.*, p. 16

Table 5.7

Table showing the reserved forest in 1892-93 in Malabar

District	Area on 1 st April 1892		Area on 30 th June 1893	
	Acres	Equivalent in Sq. Mile	Acres	Equivalent in Sq. Mile
North Malabar	75841	118.51	96081	150.13
South Malabar	25167	39.32	25173	39.33
Total	101008	157.83	121254	189.46

Source: *Notification No: 599 of 24th November 1892 in Annual Administrative Report of the Forest Department Madras Presidency, for the Fifteen Months Ending 30th June 1893-(1892-1893)*, Madras, 1893.p.IXXIII.

The above table shows that in North Malabar 20240 acres of forest was added as Reserved. In South Malabar 6 acres of forest was added as reserved land.

Several restrictions were imposed on the tribals and other forest-dwellers under the Madras Forest Act 1882. Under this, the tribals could claim only a right of way, watercourses, pasture and forest produce (Section 10). These were allowed wholly or partially by the discretion of the Forest Department (Section 11). Further, they were intermittently granted with quantitative restrictions (Section 12). Fresh clearings for cultivation or any other purpose were also restricted (Section 7). If the tribals used the prohibited items, they were liable for imprisonment for a period of six months or a fine of about Rs.500 or both, besides compensation for damage (Section 21). Grazing and collection of forest produce on forest land was limited and liable for suspension (Section 22). Grazing cattle in the closed lands attracted imprisonment for a month and/or a penalty of Rs.200 (Section 28). Penalties were similar to those for breaching any rules made by the Forest Department (Section 36)⁵¹. The Madras Forest Act of 1882, Section 41 states: ‘When there is reason to believe that a forest offence has been committed in respect of any timber or forest produce, such timber or produce, together with all tools, ropes, chains, beats,

⁵¹ Velayudhan Saravanan, *Environmental History and Tribal of Modern India*, Palgrave Mcmillan, 2018, pp. 52, 53

vehicles and cattle used in committing any such offence, may be seized by a Forest Officer or Police Officer.’ Section 51 reads: ‘Any Forest Officer or Police Officer may, without orders from a Magistrate and without a warrant, arrest any person reasonably suspected of having been concerned in any forest offence punishable with imprisonment for one month or upwards, if such person refuses to give his name and residence or gives a name or residence which there is reason to believe to be false, or if there is reason to believe he will abscond.’⁵² The forest policies directly affected the tribal lives in the colonial period. The Rules under Section 21(h) of the Madras Forest Act (The Act V of 1882) gave more power to the Governor in Council to introduce more rules and regulations. Thus they brought a set of rules and regulations for hunting, shooting and fishing in the whole reserved forests in the Madras Presidency and they even prohibited the use of water for wishing with the traditional techniques of the tribes in all these reserves.⁵³ The two main means of the livelihood of the tribes, the hunting and fishing was prohibited with this act and their entry into the forest. These acts and restrictions restructured the life of the tribes and it’s after effects were forever. It was the beginning of a new life and they were adapted to live with this and the people who violated this were treated as the culprits and convicted. The colonial authorities used various tactics to control the violations; one such was giving rewards to a person who informs the violations. In a way it was giving the responsibility of the security of the resources to the tribal people. The amount of reward was very high and so the violation of the laws was a difficult task.

⁵² *Ibid.*

⁵³ Book No. M/63, *The Forest Manual, op.cit.*, p. 90.

Table 5.8

Table showing the Amount of reward for informants in 1906

Rewarding Authority	Amount(Rs)
Reward made by the Board of Revenue	500
Reward made by the Collector of District	100

Source: Book No. M/63, *The Forest Manual, op. cit.*, p. 265

The colonizers utilized tribals by appointing them as the watchers of forests and kept them away from using the advantages of forests. The colonizers strictly prohibited the collection of forest products and prepared a list of forest products. This was the first step to control them, though they were employed as watchers. The items which included in the list was in the form of minerals (including limestone and laterite), surface soil, trees, timber, plants, grass, canes, peat, creepers, reeds, fibers, leaves, moss, flowers, fruits, seeds, roots, galls, spice, juices, catechu, bark, gum, wood oil, resin, varnish, lace, charcoal, honey and wax, skins, tusks, bones and horns⁵⁴. In a way this was a strict control and possession of the food items of the tribes and they faced the availability of the foods for the day to day life. The colonial government also prohibited and regulated the trespasses or pasture cattle, or permit cattle to trespasses; fells, girdles, marks, lops, taps, uproots or burns by any tree, or the strip off the bark or leaves from, or otherwise damaged⁵⁵. Fines were imposed and collected for the violation of these rules. They also used the grazing act.

The Grazing Act

Regulation of grazing and protection from cattle: The areas open and closed to grazing in each district and the number and kind of animals grazed free or payment of fees in the reserved forests and reserved lands. Owing to the favourable character of the season no reserves were thrown open to free grazing except in the south

⁵⁴ Sl. No. 1967, Book No. F/29, D. Brandis, *op.cit.*, p. 311

⁵⁵ Sl. No. 1967, Book No. F/29, D. Brandis, *op.cit.*, p. 315

Arcot. The permit system was introduced during the year for all grazing areas. This is the only district in which fees were levied for grazing in unreserved areas and licenses were issued to 1479 buffaloes and, 6559 cows and 20996 goats or sheep. In south Canara grass from several blocks were sold at auction to neighbouring ryots who collected and removed it at their own cost. Grazing permits at three *annas* per hundred per diem were issued in the Niligiris under the rules of the district for the pack bulls and cows of travelling tribes and merchants conveying grain from place to place. In North Malabar Mr. Mac Donald a planter at *Kurtikulam* was allowed to graze not more than 900 cattle in the adjoining reserves on payment of Rs 100 per annum.⁵⁶

The revenue from grazing fee rose from Rs.81,203 during the previous year to Rs.105811 during the year or by 30 per cent. And it is stated that this increase appears to have been obtained without any heavy additional being levied, not more than one *anna* per annum per head of cattle, having been charged at first where free grazing had before prevailed. Free grazing is still provided for cattle required for domestic or agricultural purposes where the area of unreserved land available for pasture is small. The management of grazing in forest areas continues to receive the earnest attention of the government⁵⁷. 12 elephants were captured during the year-5 in north Malabar, 3 in south Malabar and 4 were sold.⁵⁸

⁵⁶ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99, op.cit., p. 31*

⁵⁷ *Annual Administrative Report of the Forest Department of the Madras Presidency-1887-88, op.cit., p. 17*

⁵⁸ *Annual Administrative Report of the Forest Department of the Madras Presidency-1888-89, op.cit., p. 11*

Table 5.9

Table showing the details and Number of animals impounded and compounding fees collected in the Madras Presidency, 1901/ 1902–1946/1947.

Year	No.of animals impounded	Compoundin g fees(in rupees	Year	No. of animals impounded	Compoundin g fees(in rupees	Year	No.of animals impounded	Compounding fees(in rupees
1901/1902	465542	97428	1917/1918	148806	173000	1933/1934	57459	168209
1902/1903	370388	84556	1918/1919	NA	157000	1934/1935	54776	144884
1903/1904	292196	90784	1919/1920	NA	205000	1935/1936	54068	140530
1904/1905	228322	102444	1920/1921	NA	179000	1936/1937	53152	142618
1905/1906	230796	116858	1921/1922	NA	229633	1937/1938	43887	134941
1906/1907	204678	139028	1922/1923	NA	272080	1938/1939	48010	111742
1907/1908	191039	135146	1923/1924	NA	281310	1939/1940	NA	132000
1908/1909	NA	169686	1924/1925	NA	265310	1940/1941	NA	NA
1909/1910	209930	153715	1925/1926	144882	268404	1941/1942	NA	NA
1910/1911	202093	169686	1926/1927	83798	204339	1942/1943	NA	NA
1911/1912	200161	169461	1927/1928	77076	184468	1943/1944	NA	NA
1912/1913	196108	194940	1928/1929	59487	174381	1944/1945	NA	NA
1913/1914	190714	214180	1929/1930	60254	199238	1945/1946	35165	218000
1914/1915	208393	208959	1930/1931	59082	193077	1946/1947	40189	236000
1915/1916	175903	NA	1931/1932	76370	166000			
1916/1917	222367	NA	1932/1933	NA	168629			

Source: Administrative Report of the Madras Presidency and Administration Report of the Forest Department of the Madras Presidency (various years) N.A not available.

The conservators report that the protection of the forests from fire and cattle and the necessity of the growth. That depends the soil and rainfall but even the driest and barest hill-sides. They give numerous specific instances of successful young growth where this has been obtained. The most valuable trees-sal, teak, Hardwickia, Pterocarpus and satinwood as also blue-gum and Casuarina- are reported to be also the most vigorous reproducers, both from coppice and from seeds. Some cases the first growth is a dense scrub of elephant grass, bushes or thorny creepers and fears are expressed that this may kill out the young seedlings. But in the dryer districts at any rate some such covering appears necessary to protect the young seedlings from the drought of the hot weather⁵⁹.

Table 5.10

Table showing the financial results of forest conservancy department for the year 1865-66

(Malabar)

Name of forest	Receipts by sale of timber&c	Disbursements including cost establishment and contingencies	Balance in favour of government	Excess of expenditure over receipts	Estimated value of wood stored in depot	Remarks
Wynad	32650/12/0	20526/1/8	12124//10/4	...../.../...	4152/4/9	
Nellumbur	14621/7/11	18073/10/8	.../.../....	3452/2/9	49500/12/3	

Source: *Financial results of forest Conservancy department of the Madras Presidency-1865-66*, Regional Archives Kozhikkode, p.18

⁵⁹ *Ibid.*, pp. 25-26

The following table shows the details of fine collected for pasture of cattle.

Table 5.11

Table showing the details of fine collected for pasture of cattle in 1892

SL. No	Category of animals	Fines		
		Rs	Ana	Paise
1	For each elephant	10	0	0
2	For each buffalo or camel	2	0	0
3	For each horse, mare, gelding pony, colt, filly, mule, bull, bullock, cow, calf or heifer.	1	0	0
4	For each ass, pig, ewe, sheep, lamb, goat, or kid	0	8	0

Source: Sl. No.1967, Book No. F/29, D. Brandis, *op. cit.*, p.321

Table 5.12

Table showing the details of the collection of Revenue from minor forest produce and grazing fees, 1924/ 1925–1946/1947 (Rs. in lakhs)

Year	Minor forest produce	Grazing fees	Total	Year	Minor forest produce	Grazing fees	Total
1886/1887	N.A	3.57	3.57	1917/1918	NA	7.40	7.40
1887/1888	NA	1.06	1.06	1918/1919	NA	8.24	8.24
1888/1889	4.55	1.30	5.85	1919/1920	NA	8.53	8.53
1899/1890	4.58	1.43	6.01	1920/1921	NA	8.17	8.17
1890/1891	5.81	1.50	7.31	1921/1922	NA	7.90	7.90
1891/1892	NA	NA	NA	1922/1923	NA	9.24	9.24
1892/1893	NA	NA	NA	1923/1924	NA	NA	NA
1893/1894	NA	2.67	2.67	1924/1925	8.03	7.53	15.56
1894/1895	8.81	3.28	12.09	1925/1926	8.03	7.53	15.56
1895/1896	10.80	3.40	14.20	1926/1927	8.03	7.53	15.56
1896/1897	9.43	3.76	13.19	1927/1928	8.03	7.53	15.56
1897/1898	9.99	3.64	13.63	1928/1929	8.83	7.53	16.36
1898/1899	9.87	4.34	14.21	1929/1930	9.03	6.21	15.24
1899/1900	10.92	4.90	15.82	1930/1931	6.44	6.21	12.62
1900/1901	11.91	5.10	17.01	1931/1932	6.03	5.59	11.62
1901/1902	11.98	5.40	17.38	1932/1933	5.67	5.86	11.53

Year	Minor forest produce	Grazing fees	Total	Year	Minor forest produce	Grazing fees	Total
1902/1903	11.44	5.79	17.23	1933/1934	5.55	5.84	11.39
1903/1904	12.67	6.07	18.74	1934/1935	5.42	6.02	11.44
1904/1905	13.13	6.27	19.40	1935/1936	5.44	5.90	11.34
1905/1906	14.03	6.63	20.66	1936/1937	5.68	5.97	11.65
1906/1907	14.15	6.79	20.94	1937/1938	5.87	6.00	11.87
1907/1908	15.00	7.27	22.27	1938/1939	5.29	3.80	9.09
1908/1909	15.80	7.83	23.63	1939/1940	5.14	3.87	9.01
1909/1910	16.93	7.70	24.63	1940/1941	5.86	4.15	10.01
1910/1911	14.11	6.32	20.43	1941/1942	2.83	4.03	6.86
1911/1912	15.70	6.32	22.02	1942/1943	NA	NA	NA
1912/1913	NA	6.71	6.71	1943/1944	5.31	4.20	9.51
1913/1914	16.00	6.82	22.82	1944/1945	8.21	4.11	12.32
1914/1915	14.64	6.96	21.60	1945/1946	9.22	6.60	15.82
1915/1916	NA	6.87	6.87	1946/1947	10.9	7.19	18.09
1916/1917	NA	7.04	7.04				

Source: Madras Administration Report (for various years) N.A not available.

Reconfiguration of Tribal Ecology

The new colonial forest administration policies and programs and its application in the tribal life of Malabar restructured the tribal ecology. The act and its provisions totally uprooted their life with the forest. They lost their means of livelihood and forced to find out some other ways for everyday life. The Britishers exploited and used the situation and helplessness of the tribals with the use of their skills and knowledge in different ways. The management of the colonial forests was with the scientific knowledge and exploration of the British Surgeon, Naturalists and scientists. They attributed the native knowledge on the forest management as irrational and the application of such practice will create many problems and

ecological after effects⁶⁰. In a sense it was their strategy of dual policy towards the management of forest and its safety. In practice the colonial masters started using the tribes as watchers and forest servants simultaneously. In the management of forests in Malabar, the wild fire was the major challenge faced by them during this time. They spent more money and material in this regard. But failed to manage and protect the forest from the fire. Finally they appointed the local tribes as the protectors of the forests under the name of watchers on contracts. The beginning of the contract service in the forest basically to reduce the expense of the fire protection and making them as guards of the forest. It was very difficult to manage the forest fire during the summer seasons and it was a huge challenge and spent much money in this regard.

Table 5.13

*Table showing the details of
Expenditure statement of fire preventions in Malabar (1892-93)*

District	Area Protected (Acre)	Cost for Protection(Rs)
North Malabar	15408	7938
South Malabar	103344	16796
Total	118752	24734

Source: *Annual Administrative Report of the Forest department Madras Presidency, for the Fifteen Months ending 30th June 1893-(1892-1893)*, Madras, 1893.p.15.

In 1890-91 period 5 and 2 percentages of the total areas of the south Malabar and north Malabar was burnt respectively⁶¹. Areas of 4000 acres were burnt with an extensive fire in the New Amarambalam forest in the south Malabar during this year. Issac Mathew an officer in the forest department in charge of the range started employing tribes as watchers and initiated new many schemes and programs to

⁶⁰ *Annual Administrative Report of the Forest department Madras Presidency, for the Fifteen Months ending 30th June 1893-(1892-1893)*, Madras, 1893. p. 15.

⁶¹ Book No: A/1888, *Annual administrative Reports of the Forest Department southern and Northern Circles, Madras Presidency, for the year 1890-91*, Madras, 1891, p. 13.

prevent the forest fire in this area. He used tribes and their talents for their interests⁶². Here the talents of the tribal people were used for colonial gains. Mr. Gamble, the Conservator, revealed the colonial attitude towards the tribal people with an office note. The following was the remarks on *Kurumbas* in this regard.⁶³

He reveals that the *kurumbas* set fire in the forests. Hence they may be enrolled and employed as the patrols and giving them some special privileges in the area in which they lives. As far as the *kurumbas* were concerned threats and punishments will be futile, that will nothing do, because they are the incendiary people. In this situation the government transformed them into the forest servants in the reserved forests in favour of the forest department by giving more concessions. This was in the form of tenants at will, tax free blocks of lands and cash payments.⁶⁴

In a sense the colonizer clearly used them or started using them in the departmental operations constantly and making them as an ardent supporter of the colonial policies. Use of such tribes in the forest in various services gave more economic and monetary advantages to the colonial administration and succeeded in avoiding the problems to the department by these people.

Such experiences gave more courage to the colonizer to use the tribal strength. So they exploited the man power of tribal people in Malabar in many ways. Because of the wide knowledge of the tribes in the forest and its characteristic features, they were enrolled as the workers and assistants in the forests. The physique and boldness of the tribes tempted the colonizer or forest department to use them in the Malaria affected areas. The tribes used there for mainly for measuring

⁶² *Ibid.*, p. 14

⁶³ Go. No. 659 (1887), 8th July 1887, *Revenue Settlement of South East Wayanad*, Madras, 1887, p. 16

⁶⁴ *Ibid.*

the logs and other allied activities.⁶⁵ Wayanad, Silent valley and Attappadi were the hotspots of Malaria in the Malabar region. The mode of payment in working in the forest was cash and they had a contract with the non tribes for their service of measuring the timber. They were received three-fourths of an *Ana* per cubic feet for such hazardous and difficult works in the forest⁶⁶. The British utilized the skill of the tribal people for the collection of forest products and results the loss of their traditional rights on forest products. The tribal people were transformed as mere collectors of forest products for wages. Moreover the forest officials used the skill of knowledge of tribal people to identify the places frequented by wild animals. They were employed as elephant mahouts with skill of the tribes in taming the wild animals and the knowledge of the behaviour and nature of the animals'.⁶⁷.

The British arguments regarding the implementation of their policy towards native people was that the natives were irrationally using the forest and forest products and they were unaware about the preservation of forests in scientific manner⁶⁸. In British perception of the scientific method was nothing but the exploitation of forest in all the possible ways to acquire maximum revenue. This kind of an experience was new to them. To them the nature was mother; they lived there in a less impact to the nature. But the situation of the life was changed due to modernity. Their collection of materials from the forest was for meet the both ends of their life and livelihood. Strict regulations and restrictions were implemented against their entrance in forests and they were instructed to settle elsewhere⁶⁹. The tribal people lost their community rights of in forest. Thus the colonial rule compelled them to shift their everyday life into other ways.

⁶⁵ C. A. Innes, and Evans, F. B., *op.cit.*, p. 244.

⁶⁶ William Logan, *op . cit.*, p. CCC XXXVIII

⁶⁷ C. Gopalan Nair, *op.cit.*, p. 109

⁶⁸ *Annual Administrative Report of the Forest department Madras Presidency, for the Fifteen Months ending 30th June 1893-(1892-1893)*, Madras, 1893. p. 15.

⁶⁹ William Logan, *op . cit.*, p. CCCXXXIX

The inherent rights of the people were denied by the legislation and Indian Forest Act of 1927. Even in the twentieth century with this legislation, they gave more emphasis on exploitation of forests for the generation of revenue than the conservation of the forests and its valuable existence. The Preamble of the Act has outlined that the laws are constituted for the commercial use and not for the betterment of forests. They cleverly capitalised their hold over the forests in the inter war period for strengthening the colonial hegemony in India and Malabar as well. The duty levied upon the timbers and other products are best sign of their attitudes. The new interventions in the tribal world in many ways affected the behavioural pattern of the tribal communities in various aspects of life. The behavioural changes of people were also evident. The regulation implemented by the authority was behind these transformations. Major transformation of their life was that, they became dependent on colonial market economy. The self reliant tribal economy was collapsed and they became dependent on others or destitute. An important reason behind this was the banning of the *punam* or shifting cultivation practice of the tribes. It often wiped out even the scope of the alternative economic of the forest land. The *punam* cultivation is the synonym for the tribal world for great extent. Colonizers adopted many unfavoured actions towards the shifting cultivation and the promotion of commercial forestry. The *punam* cultivation can be regarded the heart and soul of the tribes and their culture in all over India and Malabar. The social controls also happened to intrude along with these regulations directly or indirectly. The rights once they enjoyed become the mere concessions of the government. The life of the tribes in the reserve forests were under the strict control of the Forest Department an agency of the colonial supervision and a site of power. Land deeds were not issued in reserve forests. Tight and stringent protocols were applied and followed in these localities. The forest policies and laws implemented in during the colonial period and curtailed freedom and access of the tribals in one way or other in

all the walks of life. The prohibition of hunting and gathering created an acute sense of deprivation among the tribal communities of Malabar.

The tribal societies survive over centuries because of its strict beliefs and practices. The beliefs and practices helped them to protect their tribal identities. The tribal identities were the traits of tribal culture and it separates the tribal society from the non-tribal society. Natural resources were the main source of their income. They were mainly engaged in cutting bamboo and collecting forest produces, and a few participated in agriculture and cattle rising. As they were landless they were mainly agricultural or unskilled labourers under the landowners of the area. They have been interacting with ecological system since time immemorial and their interaction with environment has been successful. In the past, these tribes were simply hunters and food gatherers. Forest has been their traditional homeland. Each group had its own territory in which its members hunt animals and collect forest produces for exchange. Such a territory was often quite extensive because the survival of such a group mainly depends upon the produces that the nature offers by itself. The forest dwellers found wild-growing fruits in trees and edible roots and tubers in the jungle to supplement their food. The forest also provided them necessary timber and bamboos for house building and for the manufacture of various implements. They also collected honey, medicinal herbs and other minor forest produces, which they could sell, or barter in the weekly markets or exchange centres. They hunted in the jungle and fished in the rivers that flow through their habitat and could supplement their vegetarian diet with meat. Slash and burn cultivation was an integral part of the tribal economy. The tribes that preferred shifting cultivation deliberately chose hilly forest areas as their habitats. More over the shifting cultivators always lived with forest alone and found ample time and leisure to get away from the full routine of monotonous farm work through hunting or fishing or the collection of jungle produce. Thus, it could be assumed that, the tribal life was eco-friendly in character

and was adjusted to the physical environment through the process of 'ecological adaptation'⁷⁰ The report of a Committee on Forest and Tribals by the Government of India states that the tribal communities "are not only forest dwellers but also, for centuries, they have evolved a way of life which, on the one hand, is woven round forest ecology and forest resources, on the other ensures that the forest is protected against depredation by man and nature."⁷¹The tribal world has been underwent changes with the advent of colonialism. Their social, economic, religious and cultural aspects are undergoing changes and they face the problem of identity crisis. This transition is the net result of the increased contacts with the more advanced non-tribals and the consequent acculturation. The conversion of major areas of forest into plantation opened wide scope for external influence. "The symbiotic relationship suffered a setback during the colonial rule when forest was looked upon only as a source of maximization of profit and not as a vital link between human habitat and the larger environment." The large scale immigration of peasants from the plains of the Southern Kerala with advanced technologies and new methods of cultivation gave a new impetus to the process of acculturation. "The immigration adversely affected the tribals by alienating them from their traditional lands and by subjecting them for ruthless exploitation and placing them at an inferior social status."⁷²

Thus the colonial modernity transformed the rational life world of the tribes and the people of Malabar into the scientific rationality. Changes in the structure of society resulted, changes in the human ecology, structure of the landscape and cultural ecology of Malabar.

⁷⁰ Radcliff Brown, *Structure and Function in Primitive Society*, London, 1976, p. 9

⁷¹ *Government of India, Report of a Committee on Forest and Tribals*, New Delhi, 1982, p. 2

⁷² P. T. Sebastian, *Christian Migration to Malabar*, Ph. D. Thesis, Unpublished, University of Calicut, 2002, p. 328

Chapter VI

Colonial Impact on Tribal Human Ecology

The indigenous societies which are always in contact with modern or western contemporary societies have undergone constant changes due to these interactions. The advent of colonialism was the most important element that reoriented “traditional” societies. The process of colonialism has brought some extent of structural change in colonial societies. There were deliberate attempts to bring changes in these traditional practices. These practices were intense in Kerala during the period of colonialism and resulted in major changes in the social and economic structure. Colonial control over the indigenous societies made these changes possible and then sustained and strengthened as much by the cultural and diplomatic technologies of the rule. The British were unmasked in their dealings with the tribal communities of India. Malabar had unique historical experience and had undergone both indigenous and colonial systems. The period from 1800-1947 marked crucial changes in the existing social and economic structure and the period by which the British colonial regime was well established in Malabar. Etymological origin of the word tribe gave back to the Latin ‘Tribes’ which referred original division of the early Romans.¹ It was the British who designated the people as ‘tribes’ to distinguish them from the Hindu and Muslim binary. There is consensus in the opinion that the tribes were integral part of the Indian society and their alienation occurred only after the arrival of the British.

The tribal life in Malabar provided a uniform pattern of existence. There are various references about the tribal habitation in this region. References about the presence of tribals in the hilly regions of Tamil kingdom can be seen in Sangam

¹ Herdia. C. Rudolf & Srivastava Rahul, *Tribal Identity and Minority Status*, Concept publishing company, New Delhi, 1994, p. 11

Literature. The Sangam Literature provides references about tribal people's cultivation of 'Ivanom' paddy in the wetlands and raising *Tinai*. Hunting, fishing, collecting minor forest products and shifting cultivation were the main resources of their livelihood.² The colonial records suggest that the tribes had migrated from the plain between 14th and 16th centuries and admit the possibility of the hills being inhabited prior to the exodus. It is difficult to state with any amount of accuracy of hill tribes or aborigines, as after the final census, all the forms were forwarded to Madras, the total population only being noted in collector's office. The habits and employments of the hill tribes are too many to be detailed but may be summarized as follows. "The majority has some recognised landlord among the adjacent proprietors and receives some remuneration for guarding crops from wild animals, seeing to fencing and attending elephant pits. During the parts of the year they are employed in the forests for gathering honey, cardamom and other spontaneous products. Skilled axe men who were a lot in number are temporarily employed in government Teak plantations and in coffee plantations in felling forest. These tribes are uniformly well conducted but are averse to regular and sustained industry."³ Kerala is the home of the 48 tribes which presents many interesting aspects of the aboriginal life. The tribal settlement in Kerala is on the Western Ghats and low lying hills that from the eastern boundary with the adjoining state of Madras and Mysore. In Malabar the tribal presence are in Kasargod, Kannur, Wayanad, Nilambur and Attappadi valley. There is an interlinking similarity in the settlement pattern and life style of tribal community. The tribal villages that are mostly located near a rivulet or a water sources are small with not more than 10 families. Instead of mud walls, houses were built of 'tatties' (mats) of split bamboo and thatched with jungle grass. The tribal subsistence economy was mainly depended upon agriculture and forest

² Ganeshram. s & C. Bhavani. (Ed), *History of the People and their Environs:Essays in Honour of Prof. B. S. Chandrabhanu*, Indian University Press, Chennai, pp. 23-25.

³ *Census reports 1881, vol. III list of castes*, Mr. Macgregor, Collector of Malabar-Reports, Regional Archives, Kozhikkode, pp. 61-62.

products. For the housing materials and other requirements like agriculture implements, firewood and grazing they were entirely depended upon forests which also provided them the social and cultural identities. There was an approximate equilibrium in the use of natural resources.

The transformation of the traditional life of the native people and the alteration in their ecosystem were occurred with the coming of Europeans. It is a recognised fact that the use of resources in industrial mode in India began with the advent of the colonialism. The industrial society rejected the gatherer view of man as a part of community of beings or agriculturist view of man as a steward of nature.⁴ The ideology of conquest over nature as well as modern lifestyles has resulted in a radical alteration of the landscape of the globe. Industrial societies have to be made fair systematic attempts to safeguard their own environments.⁵ The ecological imperialism in Kerala was started with the Portuguese. With their insatiable demand for pepper and other spices they accelerated the tendency for agriculture on cash crops for export at the expense of food crops.⁶ British colonial rule marks the crucial watershed in the ecological history of India. In the British period the forest dwelling people served as the bridge or the buffer communities between kingdoms. Once the British had concentrated their power in the subcontinent they had little need for buffer states in the country. After the British conquest the ecosystems of claims on arable and forest had to be reconstructed.⁷ Indigenous societies before the advent of colonialism were able to maintain a state of ecological homeostasis with their natural environment. They expressed gratitude

⁴ Sumit Guha, *Environment and Ethnicity in India (1200-1991)*, Cambridge University Press, UK, 2006p. 45.

⁵ David Arnold and Ramachandra Guha (Ed), *Nature, Culture, Imperialism: Essays on the Environmental History of South Asia*, OUP, New Delhi, 2001p. 6

⁶ George Woodcock, *Kerala a Portrait of the Malabar Coast*, Latimer Trend &Co Lltl Plymoth, London, 1967, p. 156

⁷ Donald Worster(ed), *The Ends of the Earth: Perspectives on Modern Environmental History*, C. U. P, UK, 1988, , p. 132.

for achieving this equilibrium to their immemorial knowledge of the natural world and to the innate wisdom of their self-managed local communities, which were spontaneously inclined to conservation of nature and practiced collective self-restraint in the utilization of its resources. The British onslaught on environment in Kerala began at mountain regions like Wayanad and Idukki. With the capturing of political power and geographical expansion of the East India Company the natural habits of tribals in Malabar came to be encroaching upon by the intruders shattering the tribal society and economy. The colonial intervention in the tribal habitats of Malabar was in the way of introduction of plantations, the construction of roads, canals and opening of the land to the money lenders, traders and revenue farmers. The British plantation led to the disintegration of the age old tribal social cultural systems and their forest oriented economy. In the Durkheimian sense they were relegated to the lowest social strata, as alienated, anomic and violated persons without rights or dignity in our society. Their identity as tribal people is in effect negated and their dignity as human person too is violated. Prior to the colonial intervention, commercial exploits of the forest products was largely restricted to the collection of spices and that of ivory. These extractions did not pose as a serious threat either to the ecology or customary use. The forest resources had been controlled and used collectively by village communities by ensuring the sustainable use of the renewable resources. Being a non-market economy, community itself managed it without the intervention of external forces.⁸ But the market forces irreversibly changed property rights and tribal socio-economic system. As the ecological destroyers of the world the British at first, concentrated on forest resources.⁹ Everyone in the colonies considered the forest as an obstacle to the rational profitable use of the land. Colonial onslaught on the forests was worldwide,

⁸ Jacques Pouchepadass, 'Colonialism and Environment in India: Comparative Perspective', *Economic and Political Weekly*. Vol. No. 33, Newdelhi, sameeksha trust publication, 2005 pp. 259-61

⁹ Sumit guha., *op. cit*, p. 49

and it was carried out by Europeans by with powerful technical means, so that its effect was unprecedented.¹⁰ There were two types of timber traders in Malabar as the *inland and coastal*, and there had been number of intermediaries, mainly the Muslims *Kunjikoru, Payanjalat Cheriya Pakki, Chovvakkaran Cheriya Pakki, Koyakutty* and the like.¹¹ As far as forestry was considered their ideal was the plantation which is domesticated, rationalized and optimized form of forest. The Forest Act of 1865 alienated the tribes not only from the forest but also alienated from their natural habitat. The introduction of the market economy by the British drastically altered the customary management on non-market tribal economy.

After the capturing of the Malabar by British they attempted to occupy vast tracts of tribal lands and common property resources like tanks creating a lot of problems inconvenience for the tribal people. The spread of European science and technology has been central to the global transformations.¹² The British renamed regions, trees, animals and landscape elements after those with which they were familiar in their countries of origin. A new phase opened with the onset of the railway construction in India with the initial contracts given to British companies at London in 1849.¹³

Railway – The Ecological Erosion and Socio-Ecological Transformation

Government appointed British foresters for work for timber monopolies. The office of the conservator was separated from the Commercial Agent in early 1820s and first independent conservator was Urban Verres Munro. In 1898 Ribbentrop

¹⁰ Sivaramakrishnan, *Modern Forests, State Making and Environmental Change in Colonial Eastern India*, O. U. P, Newdelhi, 1999, p. 38

¹¹ *Malabar correspondence files* , Forest Records, 1820 vol. 2432, R. A. K, p. 77

¹² Michael Adams, *Machine as the Measure of Men :Science, Technology, and Ideologies of Western Dominance*, Cornell university Press, newyork, 1989, p. 3

¹³ Irfan Habib, *Man and Environment, the Ecological History of India*, New Delhi, 2011, p. 132

visited Nilambur Plantations and recommended the annual extension of the plantations on suitable areas, as much as, possible limited to the availability of labour.¹⁴

Seasoning of Wood

Harder the wood, the more likely is it to crack and rapidly extend. The best mode of protection are dipping the extremities of the log or sleeper in *shani* or covering them with grease, mud, petroleum or matting. The wood oil smeared upon timber also tends to its protection. Several methods have been proposed for the treatment of the timber after it has been felled. It is of the utmost importance that the sap should be allowed freely to dissolve out. Some of the methods which have been adopted are incompatible with this, and are therefore so far unsatisfactory. The object of Boucherie's process is to fermentable sap by a fluid less liable to change. A full account of the process given in the Reports, &co. of the Permanent Way Company, in London who have adopted this method in the preparation of Railway Sleepers. Instead of immersing the logs in water, the practice is sometimes adopted of burying them in dung –hill. This is simply a modification of steaming process by which the nitrogenous matter is dissolved out. They used the following methods of preserving modes for timber also, Burnettizing process and that of Mr. Bethell. The former which consists in charging the wood with a solution of chloride of Zinc, appears on the whole to be the best and most practicable. It has been thoroughly tested in Her Majesty's Dockyards and found to withstand not only the effects of moisture, but the inroads of insects and fungi. Mr .Bethell uses creosote with the object of "coagulating the albumen and preventing putrefactive decomposition". This widely used in Railway works¹⁵. The British used wood not only for sleepers but also as fuel for powering engines. The railways also used enormous quantities of

¹⁴ Mammen Choondamannil, *History of Forest Management in Kerala*, KFRI, July 1993, Peechi, pp. 13-18

¹⁵ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99*, Regional Archives Kozhikkode, p. 4

bricks for the building of railway infrastructure. Bridges, culverts, station buildings and workshops consumed bricks in astronomical numbers. Millions of bricks were burned in the brick kilns and they were kept continuously burn with fire wood supplied from the forests. Forests were increasingly made available for marketing. Decentralization of the administration of the forest department was started in 1882; the provincial governments also started using the forest as an agent to increase the revenue from forests. But the decentralization of forest administration was effected in 1921 too¹⁶.

In 1898, engineer of Madras railways demanded 136000 railway sleepers for the construction of 62 miles Calicut- Cannanore railway and 164000 sleepers for 74 miles Shornur- Cochin railways.¹⁷ A number of timber contractors were entrusted by the railways to supply this timber from Malabar forests and it triggered great havoc to the forest in this region. The railways also required annually 10000 sleepers to replace the damaged ones. The forests of Malabar had to meet this demand of railway and this wiped out large extent of forests in Malabar. It is clear that the demands for the railways for wood- prime wood for sleepers, buildings and carriages, and lesser woods for firewood for kilns and for fuel for early locomotive-increased the exploitation of forests and pressure on forest dwelling people¹⁸. The expansion of system influenced the tribal culture. In the year 1899-1900 the total extension of railway was 227.77 mile and total cost incurred was 2,22,60,000.¹⁹ For this they extensively used large quantities of wood for sleepers and the special size sleepers made with Malabar teaks.²⁰ For running railway, station buildings, bridges, culverts, platforms and workshops were constructed widely in Malabar and bricks

¹⁶ Mammen Choondamannil., *op.cit.*

¹⁷ *Proceeding of The Board of Revenue- forest*, No. 17, 1899, p. 2

¹⁸ Ian j. Kerr, *Building the Railways of the Raj 1850-1900*, OUP, New Delhi, 1997, p. 148.

¹⁹ *Administrative Branch of the South Indian Railway Branch of the Public Works Department in Madras Presidency for the year 1899-1900*, 1900, pp. 5-6

²⁰ SL. No. 1022, Book No. A/985, *Report of the Department of Industries for the year ending 31st March, 1937, Madras, 1937*, p. 40.

were used for this purpose. New facilities like dams, wells, bridges were started. The *Korappuzha* Bridge, *Marat* Bridge etc were constructed in the year 1900.²¹ These constructions were more expensive so they used tribals as diggers and unskilled workers. The unfamiliar situations and conditions of the working places and the intermingling with the non tribes brought new epidemics like cholera, pneumonia and malaria to the tribes. Though they started new medical facilities, that were also new to the tribes, the officials like *apothecaries* were appointed by the colonizer for the medical aid²². Introduction of new medical system in the area brought new culture²³.

The Madras Railway has hitherto used to a very great extent the indigenous woods for sleepers. About thirty kinds of Timber have been tried experimentally, but the experiment has not been attended with satisfactory results, not always, because the woods were worthless, but from the timber not having reached a sufficient age, and from its being used in a comparatively green state. Experience has been gained and better prospects are dawning on the Company in this great essential of Railway operations. The chief Engineer issued a useful circular to the officers of districts, regarding the branding of the sleepers, of which the following is an extract. At the time of passing the sleepers they must be branded with a letter showing the kind of wood according to the table of the woods. Zinc labels will be prepared which being nailed to the sleeper will remain legible even after its decay²⁴.

The introduction of the cross-cut saw in lieu of the rude Woodman's axe made by the village blacksmith is a source of great economy and the use of this implement is insisted upon wherever practicable. As it is very expensive to bring gangs of trained sawyers from the towns, it is found more advisable to instruct the

²¹ Administrative Branch of the South Indian Railway..... *op. cit*, p. 23

²² SL. No. 1604, book No. A/1561, G. O. No. 3, *Selections from the Records of the Madras Government Report on vaccination throughout the Presidency and Provinces of Madras in the year 1866*, Madras, 1867, p. 35

²³ Administrative Branch of the South Indian Railway..... *op. cit*

²⁴ Summary Report, *op. cit*

hill tribes (*Mulsars*) and Wuddurs in this occupation and by paying ready money for the work done; a great improvement is taking place. The crosscut saw may be purchased in the shops for about 8 rupees. Planks and sleepers are now prepared for the most part by the saw instead of the axe and great savings of material is hereby affected. The saw machinery was introduced and should be left to private enterprise was an approved by government. Since that time a large Steam Saw Mill has been in active operation in Wellington under the superintendence of an Engineer. When the logs are prepared, they are placed upon carts and carried to the Inland Depot or to the rivers. The effects of great destruction of trees are already visible. The extravagant waste of the wood in the roofing of the native houses is gradually being diminished, at least in our large towns, where the increasing value of the timber is distinctly felt. The manufacture of tables and other furniture from a single piece of wood is seldom seen, and materials less valuable than teak are now used for camp chairs and ammunition boxes²⁵. Large numbers of cart roads were constructed suitable for the transport of timber from the forests. Government directed to the district forest officers of the Nilgiris, north Malabar, south Malabar, south Coimbatore and south Canara to supply maximum timber for the construction of railway lines²⁶. The area of private forest was very extensive in Malabar so wood fuel was extracted maximum from Malabar forests. On the part of the government constant supply of fuel wood, it encouraged the European and native enterprises for Casuarinas plantations on the coast near Madras²⁷.the exploitation of forest increased by 1919 to feed the saw mills and drying kilns in different parts of Malabar. It created heavy damage to the forests of the area and heavy logging operations continued to 1929. The reserve forests like Chenat Nair forest, *Puliyampallytope*, *Panakkadan*, *Kottanikunnu*, and *Pillacaripallam* etc was worked for railways in various years and continued the fuel working till 1920. The wood

²⁵ *Annual Administrative Report of the Forest Department of the Madras Presidency-1898-99, op.cit., p. 9*

²⁶ *Proceeding of The Board of Revenue- forest, No. 17, 1899, p. 9*

²⁷ *Casuarinas equisetifolia* an Australian pine tree.

fuel consumption of Madras Railway from private forest in 1881 was 15250 tons²⁸. The table shows the monthly average goods in Beypore Railway Station in 1886²⁹ as shown in the below table.

Table 6.1

*Table showing the details of the
Monthly Average goods in Beypore Railway Station in 1886*

Years	Monthly average (goods)
1870	2134
1871	4279
1872	7480
1873	4986
1874	3776
1875	4383
1876	3054
1877	8650
1878	3199
1879	3431
1880	3206
1881	2709
1882	2931

By 1859 the number of railway companies increased to eight in India. They were East India Railway Company, Great Indian Peninsular Company, Madras Railway Company, the Bombay Baroda and Central Indian Company, the Eastern Bengal Railway Company, Oudh and Rohilkand Railway Company, North Western State Railway Company and South Indian Railway. In the period between 1859 and

²⁸ Dietrich Brandis, *Suggestions Regarding Forest Administration in Madras Presidency, Madras*, 1883, p. 40.

²⁹ William Logan, *Malabar Manual Vol-I*, Asian Educational Services, (RP) New Delhi, 2000, p. 69.

1905, the British constructed 28054 miles of railway in India³⁰. The British on the construction of railway lines, the line from Madras to Malabar Coast was suggested because of the commercial significance of the Malabar in the western coast.

For the convenience of administration Malabar forests were divided into three divisions under separate district forests officers with headquarters at Nilambur, Manathavady and Palaghat. With the introduction of Madras Forest Act of 1882 the large scale reservation of private forests and unclaimed land for timber extraction and plantations. The need for the railways pressured the government of India to inaugurate forest reserves. A forest settlement officer was appointed in each division to settle the claim of private individuals on their land before the final declaration of the forest as reserved forest. Julian Danvers, Indian's government director of railways, wrote a series of reports to the Secretary of States for India in which he argued that forest reserves were necessary to supply fuel where coal was scarce.³¹

With the passing of government of India Act of 1935 administration of the forests came to be completely vested in the provinces³². An all India Forest Engineering Service was started in 1921 by recruiting 18 persons with service in the Royal Engineers. And later it became a part of the Indian forest Service. In 1923 a forest engineering branch was formed in Madras to mechanize logging operations and intensify production. C.S.Martin, Consulting Forest Engineer to the Government of India was appointed as the Chief Forest Engineer. A logging expert was selected from America to serve his subordinate. Operations were started in various forests for example Chennat Nair and Dhoni forests, Saw Mills were also erected in the places

³⁰ *The Imperial Gazetteers of India-Economic*, vol. III, Clarendon press, Oxford, 1907, p. 366

³¹ Gregory Barton, *Empire Forestry and Origins of Environmentalism*, CUP, Cambridge, 2002, p. 73

³² Mammen Choondamannil. *op.cit.*, p. 26

like Olavacode, Beypore and Wynad.³³ Extensive operations were carried out in the Nilambur areas under the Nilambur Commercial Forest Scheme. Portable saw mill was installed in Beypore in 1925 and Olavacode also which contained a seasoning plant and a box making plant³⁴. Pearse was the Chief Forest Engineer between 1926 to 1929 and he did an enumeration survey for more than 8000 ha.in the Nilambur forests for mechanical extraction to supply the Olavacode saw mill. During 1930-31 period legitimate system of forestry including the maintenance of sustained yield and preservation of the natural character of the forests were retained.³⁵ A research officer was posted in Coimbatore in 1919 who was in charge of silviculture work in Nilambur and Wynad and research centres also started in Nilambur and Palaghat in 1924,best plantation research centres in India³⁶.

British divided the forests of Wynad into 14 blocks as reserved forests and reserved lands and logs were transported to various places of Mysore for sale. In the year 1908, the government reserved 132924.46 acres of land in Wynad taluk alone³⁷. With the expansion of railway the forests of Wynad either denuded or became reserved railway purposes. In the years 1924, 1926 and 1929 the government clear felled more 100 acres of forests and the percentage of the increase of the clearing and reservation was 25. The increase of the revenue from the forests of Wynad in the years 1928-29 and 1938-39 were Rs.59373 and Rs.3700793 respectively³⁸.

³³ *Ibid.*, p. 29

³⁴ *Ibid.*, p. 30

³⁵ *Ibid.*, p. 31

³⁶ *Ibid.*, p. 44

³⁷ *Bundle no 60, file no. 49, 1908, Regional Archives Kozhikkode Kozhikkode, p. . 2*

³⁸ *Administrative Report of Forest for the Year, 1939, Regional Archives Kozhikkode, p. 45,*

Table 6.2*Table showing the Talukwise Reserve forests in Malabar 1926*

Taluk	Area in Acres
Calicut	30
Eranad	102425
Walluvanad	52476
Palakkad	35650
Kottayam	34140
Wynad	134047
Total	358768

Chennat Nair forest is worked by the railway on a lease of three years and has been very serviceable to them in producing *Erool* sleepers. It may be worthwhile at expiration of the Railway lease to locate an overseer in this forest as from its proximity to Palghat and the railway a ready market for the sale of timber may be obtained³⁹. Malabar teak used for gun carriage wheels, and is superior for any wood for wheels⁴⁰. Railways created an increasing, apparently insatiable, demand for wood of all sorts.⁴¹ They were bent on applying western principles and techniques of cultivation in no temperate environments to which they were not adapted, at the cost of repeated failures. During the world wars almost all divisions in the provinces and private forests magnitude of the felling was very high. Many varieties of timber which were not used previously in appreciable scale began to be consumed in large quantities. Many plywood industries got established during this period.⁴² The Malabar forests provided variety of products for trade both within and outside the region apart from herbs, tubers, dyes, gums etc. Timber and fuel were also extracted for trade. While many of these items were exported during medieval times timber and fuel began to be exported largely in the 19th century.

³⁹ *Ibid.*, p. 17

⁴⁰ *Ibid.*, p. 19

⁴¹ *Ibid.*

⁴² *Ibid.*, p. 24

Alteration of Landscapes and Mindscapes

The British colonial government and its Indian successors have brought drastic transformations in the tenurial relationships between people, forest and other non-arable land. The imperial designs to appropriate resources were prominent in the colonial agendas of conversion.⁴³ The British administration disregarded the tribal system not only encouraged British planters but even condoned their patently illegal activities. The means adopted to set up tea and coffee plantations in the hill or forests to favour the British planters led to the disintegration of the age old tribal socio cultural system and their forest oriented economy.⁴⁴ In the process of commercialization the colonial policy refused to accord due importance to ecology and environment as well as to the sustainable livelihood of the tribal communities. Instead its only concern was with the British planters establishing coffee estates during the nineteenth century.⁴⁵

Coffee Plantations

The plantations were started with two colonial perspectives. First, it was started as part of a colonial strategy to protect the forest in a scientific manner. Second, the colonial rulers wanted to expand agriculture in more areas and to acquire maximum revenue from it. There were mainly two categories of plantations. They were tree plantations and agricultural plantations. The British started plantations of mahogany, teak, and cinchona in various parts of Malabar. The availability of land and scarcity of wood prompted them to start plantations. In 1840s there was a shortage of the availability of timber as its demand was increased. Government leased land for plantations for a long period without interest. During

⁴³ Velayuthan Saravanan, 'Colonialism and Coffee Plantation: Decline of Environment and Tribals in Madras Presidency during the 19th Century'. *Indian Economic and Social History Review*, 414, sage publications, Newdelhi, 2004, pp. 466-475

⁴⁴ Madhav Gadgil & Ramachandra Guha, *This Fissured Land: An Ecological History of India*. O. U. P, Newdelhi, 1992, p. 147

⁴⁵ Velayuthan saravanan, *op.cit.*, pp. 469-70

the colonial period South India was the important centre of European plantations. First half of the nineteenth century witnessed the beginning of the mono crop estates of coffee, tea, cinchona and cardamom in different parts of the Madras Presidency. Starting of coffee plantations in Wayanad by Europeans is established new crop cultivation and the first organized coffee estate was started by Mr. King of Messrs. Parry & Co. in Mananthavady in 1820s. It was a 75 acres estate but this experiment did not produce desired result.⁴⁶The immediate result was that the sudden and intensive forest clearance. It became vast in 1830s with the growth of plantation crops. Mr. Pew established a Tea estate in Mananthavady in 1935 and it has become a well maintained estate in Malabar. With the success of this estate a number of European investors secured land and cleared forests in Wayanad for beginning of large scale plantations. The planters obtained land for starting plantations in many ways. Government decided to supply land for the planters from Britain regarding their huge demand for land in north side of Wayanad. Government distributed land outside teak belt in north Wayanad⁴⁷to those who gave application for land to forest authorities. By 1940, as the demand for land was increased, the Madras government determined to bring hike in revenue to sell uncultivated land for new cultivation, found ready buyers in the first coffee planters.⁴⁸

In accordance with the definition of plantation there are a number of plantations in Kerala. Considering the high level of productivity, employment opportunity and foreign exchange earnings plantation have a major role in contemporary Indian economy. Plantations can be considered as enclaves. They are characterized by a clearly demarcated territory, isolated labour force which lived in

⁴⁶ C. Gopalan Nair, *Malabar Series: Wynad- its People and Traditions*, AES, NewDelhi. 2000, p. 109

⁴⁷ *Administrative reports of the forests in madras presidency, 1861-62*, IOLV/24/1281cited See also KavithaPhilip, *Civilizing Natures*, Cambridge University Press, 2007, p. 84.

⁴⁸ Richard P. Tucker, 'Depletion Of Indias Forest Under British Imperialism: Planters, Foresters and Peasants in and Kerala', in Donald Worster(Ed), *The Ends Of The Earth: perspectives on Modern Environmental History*, CUP, Cambridge, 1994, p. 133.

plantation land and market abroad.⁴⁹ There are offices of the companies which handled the manufacturing, transport and marketing of plantation crops, attached to the plantations. It has been argued that there is a sharp contrast between the plantation estates which are efficient and the surrounding agriculture economy which is highly inefficient in most of the third world countries. Plantation brings the skills of mechanization to agriculture and there by disturbance to the equilibrium. As it is a mono culture it affects ecosystem and the production of staple crops like paddy. Amalendu Guha highlights this factor⁵⁰. The plantation sector stands at the expense of the other agrarian sectors. Good quality land was reserved for plantation agriculture. There have been many cases for the removal of the peasants from their land to give it for plantations.⁵¹ In fact the penetration of market forces was not confined to the economic sphere alone as it permeated the entire socio economic, cultural and administrative set up of the tribal economy.⁵²

Diversity of crops and heterogeneity of cultivation are the key notes of agriculture in Kerala.⁵³ Apart from regions directly under British control the princely state also were prevailed upon by the British Government to make forest land available to the planters at very low prices and under favourable conditions. The waste land proclamation issued by the king of Travancore in 1865 and the consequent large scale opening up of the forest tracts for plantations in the high ranges is a clear example of this process in Kerala.⁵⁴

⁴⁹ Graham and Floering. *The Modern Plantations in the Third world*, London, 1984, p. 2.

⁵⁰ Amalendu Guha, *A Big Push without Take off: A case study of Assam in the Indian Economy and Social History Review*, Vol. 15, No. 3, New Delhi, 1968, p. 199

⁵¹ *Ibid.*, p. 199

⁵² *Ibid.*, p. 471

⁵³ K. N. Ganesh (ed.) *Kerala State Gazetteer, Vol. III* Kerala State Gazette Department, Thiruvananthapuram, 1989, p. 55.

⁵⁴ K. V. Kunhikrishnan, *op.cit.*

In 1799, the English East India Company set up a spice plantation of coffee, cinnamon, nutmeg, pepper etc. at Anjarakkandi. It was from here that coffee was introduced in Wayanad. The cultivation of the coffee plant was introduced into Malabar by Mr. Murdock Brown in his plantation at Anjarakandi at the end of the 18th century and thence appears to have found its way up to Mananthavady where a few bushes were planted in the Mess compound by the officers of the detachment then stationed there. Between 1830 and 1840 there luxuriant growth attracted the attention of two members of the firm of Messrs. Parry & Co. who were travelling up to their states on the Baba Budan Hills in Mysore and at their suggestion that Pew Estate was opened on the hill. The venture prospered and the gradually soon estates sprang up all over the *Taluk*. Their success was immediate, half a ton an acre was an ordinary crop and the possession of an estate was looked upon as a shortcut to a fortune.

The first serious check to the industry was given by the borer, *Xylotrechus quadrupes*, which in 1865 destroyed whole estates and soon after a remedy for its ravages had been discovered in the planting of quick growing trees to shade the coffee. The fungus family *Hemelia Vastrix* was commonly known as leaf disease made its appearance and by 1875 had devastated. The decline of the industry was accelerated by The Fall of prices due to increased production in other countries and the low watermark was reached at the end of the century when the competition with Brazil drove prices down to Sterling 2-7-0 per cwt. There has been some improvement, since; the coffee is still the staple product of the Wayanad plantations. But it pays only the most favourably situated estates and only with the most careful cultivation. In the 10 years from 1893 -1903 the acreage under it decreased from 20,096 to 5477 and it is gradually be supplanted by Tea.

The two principal species grown are *Coffea Arabica*, and a *Coffea Liberica*, The latter produces a coarser flavoured coffee and the former is the plant usually cultivated. There is a considerable literature regarding the cultivation of coffee. The

process of manufacture is briefly as follows. The cherry is when it is quite ripe the pulp is removed and the Bean now known as; ‘parchment’ coffee is dried. When thoroughly dried the parchment is sent down to the coast to be cured. The processes are more easily effected in a dry and warm atmosphere and they require special machinery. The bean is left in the parchment for some and is then hulled for pre filled or peeled by being warmed in the sun and passed through a machine similar to that used for mortar. Finally the beans are sorted and the different grades are garbled by women with native winnowing fans.

The plantation at Anjarakandi continues to this day, though cinnamon alone to cultivate.⁵⁵ In the year 1845, an amount of coffee exported from Wayanad was 339 cwts. But by 1855 it increased to 23,044 cwts. The statistics given below will show the trend of the growth of coffee plantation in Wayanad.

Table 6.3

Table showing the Growth of coffee plantation in Wayanad

Year	Quantity of coffee Exported in cwts.
1844-45	399
1845-46	1696
1846-47	927
1847-48	3465
1848-49	7286
1849-50	4957
1850-51	8713
1851-52	7229
1852-53	8223
1853-54	15540
1854-55	13855
1855-56	23041

Source: W. Robinson: Report of the History, Condition and Prospects of the Taluk of Wayanad.

⁵⁵ A. SreedharaMeion, *Cultural Heritage of Kerala, An Introduction*, East-West Publication, Cochin, 1978, p. 28.

The table given below will show the area converted by the European planters into coffee plantations.

Table 6.4

Table showing the details of Coffee Plantations in Wynad

Location	Name of Estate	Area in Acres
South Wayanad	1 .Kennedy	1080
	2. Lakidy Estate	1600
	3.Pookkot	350
	4. Kullie	2500
	5 .Vythiri	2200
	6 .Vernen	1200
	7.Parry & Company	831
	8 .Terryot	1156
North Wayanad	1 .Lopez	150
	2. Mananthavady	1100
	3. Dindimal	1500
	4. Dindimal	800
	5.May	450
	6 .T. Richmond	450
	7. Brown	351
	8.Tirunelli	200
	9. Pillay	160
Narnbalakkot	1. Ochterloney	700
	2. Godfrey	800
	3.Robertson & Company	100
	4. Lassels & Company	1200
	5.Wright & Company	600

Source: W. Robinson: Report of the History, Condition and Prospects of the Taluk of Wayanad.

Mananthavady, the centre of North Wayanad, became an important town and centre of brisk activity with a European club and Race Course. The European planters of Wayanad formed their Association known as the Wayanad Planters Association in 1857 and it was one of the earliest associations affiliated to UPASI.⁵⁶ There were a hue and cry for proper transport facilities and communication network by the Planters Association of Wayanad.⁵⁷ In Wayanad, vigorous planting activities were started during this period and many bamboo forests were also destroyed for the cultivation of tea.⁵⁸

Table 6.6

*Table showing the Coffee cultivated area
in the Madras Presidency and Princely States, 1883*

Name of the district	No. of coffee plantations	Cultivated area (acres)
Madras Presidency		
Vizagapatnam	9	6.5
Madurai	3355	5378
Tinneveli	51	2719
Coimbatore	16	1321
Nigiris	459	35,128
Salem	331	10,769
Malabar	13,568	52,965
South	10	72
Princely States		
Cochin	17	8251
Travancore	56	11386
Total	17,872	127,996

Source: Maclean, *Manual of the Administration of the Madras Presidency*, Government Press, Madras, 1885, pp. 403–404

⁵⁶ *Planting Directory of Southern India, op.cit.*, p. 150.

⁵⁷ Innes, *Malabar District Gazetteer*, Thiruvananthapuram, 1997, p. 225

⁵⁸ *Planting Opinion*, May 21, 1899, p. 16

Table 6.7

Table showing the details of coffee export in the Madras Presidency, 1855/1856–1875/ 1876

Year	Quantity(lbs)	value	year	Quantity(lbs)	Value
1855-1856	8,601,464	892,167	1866-1867	34,527,695	7,813,813
1856-1857	8,869,609	944,446	1866–1867	17,374,766	4,191,785
1857-1858	7,714,355	867,044	1866–1867	35,659,638	8,058,373
1858-1859	11,372,338	1,230,803	1866–1867	47,411,508	10,765,221
1859-1860	14,578,228	1,875,054	1866–1867	37,353,359	8,821,118
1860-1861	18,571,414	3,241,699	1866–1867	35,484,209	8,284,862
1861-1862	20,960,198	4,710,369	1866–1867	56,889,888	13,834,164
1862-1863	20,269,004	5,355,581	1866–1867	41,548,950	11,276,542
1863-1864	27,333,127	6,555,671	1866–1867	41,179,712	15,191,418
1864-1865	31,424,319	7,684,939	1866–1867	36,652,965	13,613,617

Source: Maclean, Manual of the Administration of the Madras Presidency, Government Press, Madras, 1885, p. 336

Tea Plantation

Tea was first introduced into the Wayanad by Messrs. Parry & Co who grew it for many years on their Perindotti Estate. The failure of cinchona gave an impetus to its cultivation and since 1892 many coffee estates have been converted into tea gardens. Extensions are still going on for tea does well in many parts of the Wayanad and it may yet prove the salvation of the planting industry there. Prices show a tendency to rise and efforts are being made it to create a market among natives of India. From the first April 1903 a customs source of one quarter of a pie per pound on all tea exported from India was imposed by law and the precedes handed over to a committee to be expanded in increasing the consumption of tea outside the United Kingdom. The tea planter however requires more capital than the coffee planter and since the tea must be manufactured on or close to the estate where it is picked and considerable outlay is necessary on machinery and buildings. Picking and manufacture also goes on all the year round whereas the coffee planter has only one crop to deal with.

The tea plant is a *Camellia* and its Blossom closely resembles that of the ordinary single white *Camellia* and has a similar scent. Three varieties are grown, the pure s china tea, the indigenous Assam sort and the hybrid between these two which is the most useful and generally grown of the three. It produces twice as much leaf as the pure China and yet processes a great deal of the latter's hardiness. Each of the leaves of the fruit of a plant is known by technical name. The bud at the extreme end is called the tip or the flowering pekoe, the two next to it "Orange pekoe" the two next to it "souchong". And next to the largest of the series was "Congou". When a flush or burst of green leaf occurs on the estate all these leaves are all plucked together and taken to the factory where, they are spread out on shelves and left to wither and until they can be rolled between the fingers without breaking. The leaves are the rolled by machine and laid in a thin layer in a darkened and moist room and left to ferment. When the required stage of fermentation is reached, the tea is roasted or fired in machine called a "sirocco", which drives hot air between trays on which the leaves are spread. Finally the fired tea is sifted by machinery the grades usually distinguished being Orange pekoe, broken pekoe, pekoe, pekoe souchong , broken souchong and congou.

Late nineteenth century witnessed the investment of large amounts of capital by the big European companies in tea plantations in Wayanad and the joint-stock companies for these investments were Harrison & Crossfield, Pierce-Leslie, and Kerala Tea Company. Thus within a short span of eight years more than 10,000 acres of land was converted to tea cultivation. The table given below shows the acreage under tea cultivation by various companies by the close of the nineteenth century.

Table 6.8*Table showing the Acreage of Tea cultivation and Companies in Wynad*

Name of the Company or Proprietor undertaking the Tea Cultivation.	Acreage
1. Eranad & Joint Co-operative Wholesale Society	3409
2. Harrison & Cross field Ltd.	5012
3. Pierce-Leslie and Company	1452
4. T.C. Anderson	3 1
5. George Bros.	50
6. H.A.R. Jaffar Muhammed & Sons	153
7. George Romilly	284
8. W.T. Sargent & Sons	375
9. P.G.T. Tipping & Irwin	181
Total	10937

Source: Planting Directory of South India-1897, pp. 37-38.

Vigorous planting activities converted the area into tea ecology in Wayanad. More investors came to there and the first experiment of Parry and Company in Wayanad showed clearly that, well-planted tea will grow very well and the agro-climatic conditions of Wayanad were suitable for its large-scale cultivation.⁵⁹The success of Parry and Company and the increasing demand of tea in the European market attracted new tea companies to Wayanad. The availability of land and cheap labour strengthened the toil of the European companies. The joint-stock companies like Harrison & Crossfield.

⁵⁹ *Planting Opinion*, May 21, 1899, p. 16.

Table 6.9

*Table showing the Tea cultivated area
in the Madras Presidency and Princely States, 1883.*

Name of the district	No. of tea plantations	Cultivated area (in acres)
Madras Presidency		
Vizagapatnam	1	42
Madurai	2	3
Nigiris	78	11,764
Malabar	5	66
Princely States		
Travancore	26	1006
Total	112	12,881

Source: Maclean, Manual of the Administration of the Madras Presidency, Government Press, Madras, 1885, p. 404

Table 6.10

*Table showing the details of Tea
export in the Madras Presidency, 1855/1856–1875/1876*

Year	Quantity(lbs)	Value(rupees)	Year	Quantity(lbs)	Value(rupees)
1855-1856	43,426 34,376	43,426 34,376	1874-1875	93,918 114,383	93,918 114,383
1856-1857	79,915 57,461	79,915 57,461	1875-1876	120,924	146,272
1857-1858	13,699	13,699	1876-1877	147,132	166,988
1858-1859	53	70	1877-1878	183,178	193,083
1869-1870	6166	9162	1878-1879	204,630	211,753
1871-1872	17,883	18,065	1879-1880	208,247	233,904
1872-1873	33,579	45,594	1880-1881	266,942	286,722
1873-1874	43,426	52,417	1881-1882	319,752	372,738
1874-1875	80,581	89,166	1882-1883	309,548	329,057

Source: Maclean, Manual of the Administration of the Madras Presidency, Government Press, Madras, 1885, p. 346.

The colonizers carried with the techniques and tools, introduced crops and forms of animal husbandry, opened up routes for diffusion and exchange which irreversibly altered the local socio-economic configurations.⁶⁰ The combined appearance of coffee and tea transformed wide area of middle hills into plantation mono crops.

⁶⁰ David Arnold & Ramachandra Guha, *op.cit.*, p. 124

Cinchona Plantation

Cinchona, one of the remedies to which the planter had recourse when coffee began to fail and between 1880 and 1890 was largely grown. Unfortunately for the Wayanad, Ceylon entered in the field about the same time. The drug was poured upon the market and in 10 years time prices dropped from one Pound per Ounce to 10 Pence. Very little cinchona is now grown in Malabar. The cinchonas of which there are numerous species are natives of South America. Quinine is a corruption of the word “quina quina” or “bark of barks and its virtues were probably known to the American Indians, before the arrival of the Spanish. The usual method of harvesting the bark is the coppice system, the trees cut down close to the ground in about its 15th year and the bark is slice off and dried in the sun or by artificial heat. Quinine is not manufactured in the district in all the work is either sent it to the Nilgiri factory or to Europe. Due to the failure, coffee planters are compelled to change to other crops. At first they experimented with Cinchona, which was used as a suppressant for Malaria. This disease was a great threat to planters and labourers in the tropics and in many places plantation mono cropping was accompanied by Malaria including Wayanad. The people of lower plains even avoided the visit of Wayanad because of the high incidence of Malaria. This led to the scarcity of native laborers in the plantation areas which was faced by the planters bringing Tamil and Kannada speaking untouchable labors from the neighbouring areas. Quinine, a medicine for Malaria was made out of the bark of cinchona. From 1880 to 1890 cinchona was largely grown in Wayanad. The first known tea estate in Wayanad was also established by Messrs. Parry & co. at Perindotty in South Wayanad. According to the estimate of 1909 the area under plantation in Wayanad was 16637 acres of land.

Bamboo Plantation

The British started bamboo plantations in Malabar. Bamboo Jungle Land and even more open localities yield fair return to proper horticultural enterprise and judicious management so that probably a full third or more of the area of Wayanad (1160 square miles, 725000 acres) might be made available for bamboo cultivation. A finer field where obstacles removed and communications improved, for the employment of British capital⁶¹.

Table 6.11

Table showing the Number of bamboo trees cut down and their value in the Madras Presidency, 1888/1889–1946/1947

year	No.of bamboo trees	year	No.of bamboo trees	year	Value (Rs. In lakh)	Year	Value (Rs.In lakh)
1888/1889	1,100,840	1903/1904	37,025,554	1914/1915	2.46	1929/1930	4.55
1889/1890	12,694,181	1904/1905	35,826,887	1915/1916	3.17	1930/1931	3.94
1890/1891	18223447	1905/1906	32083686	1916/1917	3.43	1931/1932	3.44
1891/1892	29193195	1906/1907	39216167	1917/1918	3.25	1932/1933	3.83
1892/1893	33725819	1907/1908	47048184	1918/1919	3.16	1933/1934	3.88
1893/1894	30846684	1908/1909	32032765	1919/1920	3.14	1934/1935	3.95
1894/1895	29317049	1909/1910	39419784	1920/1921	2.64	1935/1936	3.90
1895/1896	26081017	1910/1911	5300000	1921/1922	3.24	1936/1937	3.74
1896/1897	29958554	1911/1912	47048184	1922/1923	4.08	1937/1938	3.93
1897/1898	39217618	1912/1913	74553732	1923/1924	4.03	1938/1939	3.97
1898/1899	35844728	1913/1914	4100000	1924/1925	3.45	1939/1940	3.68
1899/1900	37025554			1925/1926	4.13	1943/1944	7.36
1900/1901	35826887			1926/1927	4.11	1944/1945	10.97
1901/1902	39217618			1927/1928	3.82	1945/1946	10.40
1902/1903	35844728			1928/1929	4.08	1946/1947	13.67

Source: Madras Administration Report (for various years).

Data is not available for the years of 1940/1941, 1941/1942 and 1942/1943.

⁶¹ J. Rejikumar(Ed), *Selected Reports on Malabar, Canara and Wynad 1914, 1916, 1917*, Kerala State Archives, Govt. of Kerala, 2010, pp. 101-2

The soil of Wayanad was fertile and the climate highly favourable. The shrub if properly guarded bears the 3rd year. An estate probably pays the expenses of the years cultivation in the 4th year and is full bearing in the 5th. No tax on coffee cultivation should take effect till the 5th year as otherwise the tax would be paid from capital. The estates are fairly done by, 7 or 8 cwt per acre will not be an unreasonable assumption as the average usual production of an acre and it were worth 120 to 150 rupees. A thousand to 1200 trees occupy an acre. The cost of bringing estates into bearing and of maintaining them in a productive and cleanly state, is therefore considerably below that of Ceylon. The value of an average estate in bearing may be taken at 100 to 200 Rupees per acre.⁶² Transportation was through bullock carts and communication system was flourished⁶³.

The use of land was changed highly cultivated holdings, purchased or otherwise obtained, free of tax, extension of jungles.etc happened. Public land now fraudulently usurped would be brought to light and the basis be laid for a handsome revenue from coffee culture and new life would be given to the condition of that neglected but most valuable district., in the case of tax imposition given at the option of the planter to select one of the two modes of assessments, viz, either an agreeable rate to be assessed on his entire holding or a reasonable but considerably enhanced assessment on the cultivated land his estate⁶⁴. There being in Malabar great variations of climate, soil and rainfall and the latter being nowhere less than fifty inches annually find a rich and varied flora⁶⁵ were very conducive for the growth and cultivation of bamboo.

⁶² *Ibid.*

⁶³ *Ibid.*, p. 103

⁶⁴ *Ibid.*, p. 106

⁶⁵ *File no. 25 A*, and Logan, *Malabar*, (rp), *Charithram* publications, Tvm, 1981. p. 49.

Rubber Plantation

The year after 1900 witnessed coming of a third major plantation crop called rubber. With advent of bicycles in the 1870s the industrial economies demand for rubber trees led tropical botanists to study several species of trees which produced rubbery latex. British smuggled the seedlings of rubber from Brazil and introduced them in Ceylon and Malaysia. In 1879 the first seedlings of rubber brought from Ceylon to Malabar where forests at Nilambur plantations grew this experimentally.⁶⁶ Traditional subsistence economy of Kerala was linked with the world capitalist market.

Table given below shows the area converted by the European planters into Rubber and Tea plantations in the early decades of twentieth century in Nilambur and Eastern Eranad Area.

Table 6.5

Table showing the details of Rubber and Tea plantations in Nilambur and Eastern Eranad in early decades of 20th century

Location	Name of Estate	Area in Acres
Nilambur and Eastern Eranad	Kerala and Calicut Rubber Estate(Pierce Lessly Co)	2130
„	Arthala Tea Estate	1241.50
„	Pullangode Rubber Estate (Aspinwal Co.)	4000

Source: An Indenture Document between Bambllasseri Sankunni Menon and Bambllasseri Sankunni Menon and Lionel Edward Kirwan office of the Registrar at Chingelpet in Madras on 25th January,1908,Doc,No.No.527,Book I,Vol.493,pp.133-143.

Colonial administration in India had the tool of diplomacy and technology for attaining control over the indigenous communities. In the colonial agenda there

⁶⁶ Richard P Tucker, 'The Depletion of India's Forest under British Imperialism: Planters, Forests and Peasants in Assam and Kerala'.... . *op. cit*, pp. 118-20, 130

was no space for the welfare of the tribal people, conservation of their ecology and environment. In the colonial interaction there was no concept of acculturation but only integration in to the colonial and capitalist matrix and it created far reaching and drastic effect on the tribal society.

Deforestation has a long history. J.P. Richards and R.P. Tucker have argued: 'A fundamental transformation of planet's vegetation had begun around 1500 when Europeans first extended their quest for wealth and resources to other continents.'⁶⁷ The pressure on forests is increased particularly since 1900.

Richards and Tucker write:

Since 1900 the forests of the world have come under increasing human pressure. In Asia, Africa and Latin America forests have been cut at a faster rate than ever before. Those areas not converted to other uses have been increasingly degraded and impoverished. Net forest rigor worth has not kept up with the extraction of wood and other products.⁶⁸ They argue that international timber trade which played a considerable role in deforestation in the 20th century particularly in developing countries must be seen within the context of interactions between globally dominant power of western capital and regional markets controlled in part by local entrepreneurs responding to regional opportunities for profit. The role of colonialism was significant in the process.⁶⁹

The British and other Europeans plundered the resources for new European countries. 'British and European consumers and manufacturers sucked in resources that were gathered, hunted, fished, mined and farmed in a great profusion of extractive and agrarian systems; spices, cotton, tea and timber from India. The main

⁶⁷ Richards and Tucker (eds), 'Introduction', in idem, *World Deforestation in the Twentieth Century*, pp. 1-12, esp. p. 3.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*, pp. 4-6

agenda of the European expeditionary movement was to exploit natural resources. Europeans made contact with the Indian subcontinent from the early sixteenth century and continued trade and commercial activities until the late eighteenth century.⁷⁰

Here we only concerned with the trade in items which contributed to deforestation. Forest products were collected by the people of the sub mountain tract and sold to traders. With a few exceptions the trade was carried on by Muslims⁷¹. The Forest Department managed forests for sustained production and extraction of timber. For this purpose forests were first surveyed, their resources estimated and then made accessible. The search for timber species began in the 1850s.

Table 6.12

Table showing the Area under the Reserve in the Madras Presidency prior to the Madras Forest Act, 1867–1881

District	Year of notification	Estimated areas in acres
Godavari	1880	43,520
Cuddappah	1870–1881	113,286
North Arcot	1871–1879	14,381
South Arcot	1869–1880	95,757
Tiruchinopoly	1871	4166
Madurai	1878–1881	150,675
Tinnevelly	1881	183,558
Coimbatore 1879	1879	92,941
Nilgiris	1878–1880	18,074
Salem	1867–1880	11,398
Malabar	1872–1874	28,806

Source: Brandis, *Suggestions Regarding Forest Administration in the Madras Presidency*, Government Press, Madras, 1883, p. 16

⁷⁰ Velayutham saravanan , *Environmental History and Tribals in Modern India*, Palgrave Mcmillan, 2018, pp. 5-6

⁷¹ *Malabar correspondence files* , Forest Records, 1820 vol. 2432, R. A. K, p. 77

Table 6.13

Table showing the Amount of forest revenue collected from the Madras Presidency, 1868–1877

Year	Forest revenue (in £)	Forest revenue (in rupees)
1868	42,966	429,660
1869	39,133	391,330
1870	49,855	498,550
1871	33,979	339,790
1872	41,886	418,860
1873	41,854	418,540
1874	44,983	449,830
1875	36,354	363,540
1876	42,772	427,720
1877	41,476	414,760

Source: Statistical Abstract Relating to British India from 1867/1868 to 1876/1877.

Roads

Road was seen as essential for any expansion of the timber trade. Some roads were constructed purely for extraction of timber as was the case with a 34 miles road Wayanad Pass. This process of road construction for forest control continued through the late 19th century to the 20th century. Roads alone were not enough. Rivers were also surveyed to examine their suitability for floating down of timber. Canolly Canal, Ponnani river, *Kallayi* etc. By the end of the 19th century large parts of the forests in the Malabar were made accessible opening them up for timber extraction. Construction of roads itself as Mahesh Rangarajan has argued, led to destruction of forests, but more than that these opened up forests for destruction.

Table 6.14

Table showing the details of the Road Constructions and Descriptions

Description of work	Cost during the year
Road repairs	4610
New roads	9414
Building repairs	5593
New buildings	11714
Other work repairs	778
New other works	379
Total	32488

Source: Forest administration in British India for the year 1888-89. p.29

Scientific Forest Management and Alienation of Tribes

Due to the British intervention tribals of Malabar were geographically exposed to the outside world. By nature tribals were adamant to their culture and for them it is extremely difficult to follow the customs and practices of an alien community. The British attempt to alter the age old customs and practices of tribal community naturally created the protest. During the pre-colonial period, an approximate equilibrium of the natural resource base existed between 800 AD and 1800 AD with tribals following mixed cultivation of between two and five crops. The labour requirements were met mainly from their own family members and their relatives with labour exchange practiced within communities. Individual ownership of land was absent and communities managed land collectively. Until the intervention of external forces, most of the hills were isolated from mainstream society and the tribals had only a minimum interaction with others for their essential commodities⁷². Forest conservation initiatives or scientific forest management which took shape from the second half of the nineteenth century were confined to the induction of formally trained personnel from the German Forest College into the

⁷² V. Saravanan, 'Economic exploitation of forest resources in south India during the pre-Forest Act colonial era, 1793-1882', *International Forestry Review* Vol. 10(1), 2008, p. 67

Forest Department in order to develop scientific forest management. While analysing the emergence of scientific forest management, scholars have not paid due attention to the consequences on forest-dwelling communities' livelihood options or how forest resources were systematically exploited for the commercial interests of the British until the end of the colonial era. In the Madras Presidency, most of the hill tribals lived in isolation, marked by a subsistence economy. Hence any threat to equilibrium and harmony was not made at least until the early nineteenth century. Extracting natural resources as a source of livelihood within given boundaries is something different from exploiting natural resources for commercial ventures by external forces. During the pre-colonial period extracting natural resources was either for livelihood or to expand cultivation, whereas the colonial regime systematically plundered resources while imposing restrictions on the people. Chandran has clearly depicted the pre colonial conditions and sustainable strategy for the agricultural use of tropical forest ecosystems for livelihood⁷³.

During the pre-colonial period the factors that impinged upon natural resources in terms of population, consumption pattern, trade and commercial activities and how those factors changed over the period and how colonialism altered the rules of the game are worth examining. Until colonial intervention took place teak found in large quantities in the southern parts of Western Ghats was used by people for a variety of activities, but it was completely lost within two to three decades of the arrival of East India Company. The last quarter of the nineteenth century witnessed the enactment of the Indian Forest Act 1878. Apart from livelihood restrictions other factors that have an impact on the environment are population, trade and commerce, migration, policies of development and environment, political economy, politics, law and so on. Stressing the importance of

⁷³ Chandran, M. D. S., 'Shifting Cultivation, Sacred Groves and Conflicts in Colonial Forest Policy in Western Ghats' in Grove, R. H., Sangwan, S. and Damodaran, V. (eds.) *Nature and the Orient: The Environmental History of South and Southeast Asia*. Oxford University Press, Delhi, 1998. pp. 674-707

law and policy, McNeill says that ‘law and policy have always had more to say about the land than the sea’.⁷⁴

The British Malabar was divided into a number of Taluks and villages covering an area of about 6262 square mile.⁷⁵ It was bound in the north by the province of Canara, in the east by Coorg and Mysore, to the south-east by Coimbatore and in the south by the province of Cochin. The first effort to ascertain the population of Malabar was made in 1802 when the district officials placed its population at 4, 65,514. According to the taluk-wise survey made in 1831 the population was 11, 13,497.

Table 6.15

Table showing the population of Malabar during the nineteenth century

1802	465514
1807	707556
1831	1113497
1851	1514909
1861	1709081
1871	2261250
1881	2365035
1891	2652565
1901	2790281

Source: see the Census reports of 1901

Malabar had about 986 square kilometres of forest area. Most of the forestlands were under private owners. The State owned large tracts in Wayanad, Kottayam, Kozhikode, Eranad, Valluvanad and Palakkad *Taluks*. The district was

⁷⁴ *Ibid.*, pp. 6-7

⁷⁵ Ward and Corner, *A Descriptive Memoir of Malabar*, Thiruvananthapuram, 1995, p. 1

divided into three forest divisions each under a district forest officer with headquarters at Nilambur, Mananthavady and Palakkad.⁷⁶

When Malabar was brought under the control of the East India Company in 1792 the Government of Bombay decided to appoint a commission in order to assess the conditions in Malabar. The commission consisted of Alexander Dow and William Gamul Farmer from the Bombay Presidency as well as William Page and Charles Boddam from the Bengal Presidency. Later it was known as the Joint Commission. They were given instructions to assess and record the political condition and background of Malabar. General Amherst, the Governor of Bombay wanted to streamline the whole administrative machinery in a well-organized system of East India Company.⁷⁷ Regarding Civil Administration, the whole Malabar province was brought under a supervisor and the northern and southern halves were placed under northern and southern superintendents to assist him. The superintendents exercised both financial and administrative powers.⁷⁸

Forests of British India as pointed out by several environmental historians were irreversibly transformed by a slew of colonial policies and strategic interventions. In particular the introduction of scientific forestry, by the mid half nineteenth century, heralded a new moment in colonial attempts at turning useless jungle into a values resource, in order to meet the empire's gargantuan appetites for timber and other needs.

Configuration of Plant Ecology in Malabar

By employing science to define forest management practices and creating technical bureaucracies and other modern institutional arrangements the British

⁷⁶ C. A. Innes, *op.cit.*, pp. 239-40

⁷⁷ Margaret Frenz, *From Contact to Conquest: Transition to British Rule in Malabar - 1790- 1805*, Oxford, 2003, p. 99.

⁷⁸ *Ibid.*, p. 101

government sought to sustain timber yields and conserve forests through their systematic rather than reckless exploitation⁷⁹.

With the outbreak of the long naval conflict with the French, the British shifted the focus of incipient concern from Bengal to Malabar Coast. Especially after the loss of the American sources of supply after 1776 the Malabar forest had come to be heavily drawn by both indigenous Indian merchants and The Royal Navy for the ship building purposes. Much local naval ship building, especially of the Bombay Marine, was actually carried out by Parsi enterprises. The defeat of Tippu Sulthan enormously increased the ship building activity and more important terms of forest history, for the first time allowed unimpeded access to the forests of Malabar and Mysore and thus to a steady supply of teak. Political division and traditional controls had the effect of cushioning Indian forests from the increasing pressures imposed by external markets and small private enterprises. As a single political and colonial entity, India then became more vulnerable to both externally and internally general economic and ecological pressures.

The foundation of a timber syndicate on the Malabar Coast by Surgeon William Maconochie in 1776 was the first major European response to western India to the fear of a naval timber shortage. It is said that his activities were commercial rather than scientific or medical. The Bengal-Bombay joint commission of E.I.C attempted to impose regulations prohibiting the felling of teak below 21 inches of girth in 1800. The state of Indian forests became a matter of frequent and strategic discussion in London after 1800. For instance Viscount Melville stated in a letter to Marquis Wellesley on 4th July 1804, 'his conviction that with a view both to military and commercial purposes this country must one day avail itself of valuable resources to be had the shipbuilding in the ports of India. Straight timber was procured from

⁷⁹ S. Abdul Thaha, Forest Policy and Ecological Change the Hyderabad State(1867-1948) in Deepak kumar and et al (Ed), *The British Empire and the Natural world Environmental Encounters in South Asia*, OUP, New Delhi, p. 262

Malabar through the port of Cochin'.⁸⁰ Wellesley suggested that several professional men should be sent to ensure a due survey of the remaining forests. It was not until 1810 that a surgeon actually participated in forest surveys. This occurred when surgeon Thomas Palmer was appointed as conservator of Malabar during 1810-13 and was made responsible for completing the Malabar surveys. In 1776 with the arrival of William Roxburg in Madras after a period spent as a surgeon on company ships the proposed survey became intense. During the ensuing 37 years, until his death in 1813 he developed a series of analyses and diagnoses of the dynamics of climate and ecological change in India⁸¹. As a colonial scientist he linked the quality and virtue of the atmosphere with the quality of a society with the contemporary enthusiasm that he took up from the Royal Society for systematic meteorology. Along with the society of arts he adopted a related and lifelong interest in tree planting.

Nathaniel Wallach was particularly impressed by Roxburgh's plantation efforts and moved quickly to replicate and institutionalise them, bringing about the formation of a Plantation Committee, chaired by the governor -general in 1823⁸². (Bengal) In 1830, not long before Wallach made his effectively futile attempts to secure government intervention in areas of unrestricted deforestation the Nilambur Rajah had made an urgent approach to the government of Bombay. The Navy Board concurred with the Rajah and strongly advised the restoration of the old conservancy but to no immediate avail. The govt of Madras was then brought into the matter and the Nilambur initiative communicated to the Madras board of revenue for comments on 22 April 1831. Between 1831 and 1837, therefore the activities of the timber merchants expanded without any serious check on their activities effectively

⁸⁰ Richard H Grove, *Green Imperialism: colonial expansion, tropical island Edens and the origins of Environmentalism, 1600-1860*, OUP, Delhi, pp. 390-93.

⁸¹ *Ibid.*, p. 400

⁸² *Ibid.*, p. 410

defended as they were by the sympathetic stance of the revenue boards and the effective importance of the navy and military boards. In 1837, however, the situation changed, once more as the result of an area outside company control. In September of that year the Madras govt received a report from the resident in Travancore on the forest of that province and the subject was reopened.⁸³

Unlike many reports received from collectors during 1837 this one in response to the Nilambur initiative and the 1831 recommendations of the Indian navy board, considered the notion of resuming government interference in timber cutting as an infringement of private property rights. It is clear that the revenue board considered that Clementson's laissez fair views wrapped up as they were in legal arguments would easily paid to the Travancore report. During 1838, however this confidence was betrayed, ironically enough by Clementson himself who submitted a new report in May 1838 commenting on the indiscriminate cutting of teak irrespective of age by all land owners with the single exception of the Nilambur Rajah. They also imposed high duty on young timbers. The board of Revenue sent all the collectors' reports on deforestation to the Madras government for its perusal during September 1838 and the resident in Travancore and collector of Malabar were asked to report further on the status of timber other than teak. The views and the interests of the Madras revenue board which even when confronted with evidence wholesale deforestation in Malabar refused to countenance further controls. Instead they talked, in procrastinating fashion, of the 'great diversity of opinion on the subject of the timber contained in the Malabar forests'⁸⁴.

The political initiative had passed not only from Madras Revenue Board but also from the Madras government itself with regard to decisions about land use in its territory. Initial low level official discontent surfaced fully especially in Madras in

⁸³ *Ibid.*, p. 418

⁸⁴ *Ibid.*, p. 421

the aftermath of the serious famines of 1837-39 and resulted in mounting internal criticism of governmental attitudes to famine management. The changes in the policy matters are appeared to require a famine to lend credibility to scientists in the eyes of government and to provide the required impetus for the state to intervene with measures to protect the environment. The state control over land and timber supplies, the expansion in state forest control almost always took place at the expense of traditional rights and customs over forests and grazing. While the desire to control rebellious minority tribal groups and secure a sustained supply of cheap timber encouraged this expansion and the fear of climatic change remained an important motive.

New labour culture and Tribes

The plantation has been giving employment opportunities to a large number of people both directly and indirectly and as such it had a great role in the economic development of the area. It is the best example of an institution started by the colonial government in Malabar area. It is also an example for an institution in the area manifesting aspects of colonial rule. It attracted people from other areas and from nearby state of Tamilnadu and Karnataka and thus has been a cause for social mobility and changes in human ecology. The consequence of the development of plantations was the mass destruction of the forest in the area and thereby affected the ecology. The estates and plantation are treated not in their own right only but in its amending effects that created in life and culture of the locality near the estate and thus much familiar with it and it's surrounding.

The Anjarakandy spices plantation started by the East India Company in 1797 was the most important and only large-scale plantation in southern India on which the slaves as such were to work for the colonial aspirations. Murdoch Brown after assuming the charge as overseer of the plantation gave a detailed application to the President and Commissioner of Malabar, stating the problems and difficulties,

the most serious one was the inadequacy of labour supplied to the plantation by the Tehsildar. Brown had purchased about 45 *Pulayar* women and children whom he had found 'very useful' on his estate. From the evidence collected by T.H. Baber, the Judge and Magistrate of north Malabar, it appears that the children employed on Brown's plantations were in fact kidnapped; they were forcibly taken from their relatives at midnight, clothes were thrust into their mouths, and they were carried to Alappuzha where Assin Ally, the agent secretly employed by Brown resided, from there they were taken to Mayyazhi.

The plantations brought about a new labour culture and system in Malabar area in different times and localities. The major sources of labour supply to the plantations during the period were the slave castes and tribes, non-tribal migrants from villages hit by famine and other natural calamities. The prime intention of the abolition of slavery by the British Government through the Act V of 1843 was to release slaves to the newly started mines and plantations. The labour on the estates is nearly all important and in 1903 on the motion of a sum of the planters in this and other districts who considered that the existing Act XIII of 1859 was inadequate to secure control over defaulting labour contractors and coolies. The Madras Planters Labour Act of 1903 was passed into law. But it was not found favour with employers of labour and it amended and has since been repealed.

In 1857 a detailed census was conducted on the slave population in Malabar which enumerated the number of slaves to 1,87,000.

Table 6.16*Table showing the Taluk-wise distributions of slaves*

S1. No.	Taluk	No. of Slaves
1	Kottayam	2,859
2	Kurumbranad	16,590
3	Wayanad	16,56 1
4	Kozhikode	14,082
5	Eranad	35,4 19
6	Walluvanad	34,4 19
7	Palakkad	25,280
8	Ponnani	28,668
9	Kochi	71
	Total	1,87,812

Source: Census of the Slave Population of Malabar 1857

In due course of time some slaves liberated and all of them not became the labourers in the plantations. Most of such slaves continued as attached labourers in the fields of their masters. During their off-seasons only a small minority became the labourers in the plantations. The tribes also became a source of labour supply for them as a result of the thrown out of the forest by the Europeans with their coming and clearance of the forest for starting the plantations. Thus these tribals were forcibly uprooted from their natural habitat and had no other option and hope, but to serve in the plantations for survives. The policy of eviction had very much impact in this regard. A rapid increase of evictions can be seen during the period between 1860 and 1889.

Table 6.17

Table showing the Number of Evictions

Period	Suits of evictions	Persons against whom eviction decrees have been passed
1862-66	2039	1891
1867-71	2547	3483
1872-76	3974	6286
1877-80	4983	8355
1891-96	3178	2352

Source: William Logan, *Malabar* Vol. 1. p. 583

The great famine of 1876-78 seriously affected seven out of twenty one districts of the Madras Presidency. The net result of the disastrous famine was that, which compelled a large number of people from the lower castes to go to the plantations.⁸⁵ Thus the famine-hit districts of Madras Presidency like, Salem, Madras, Ramanad, Tinnevely and Coimbatore became recruiting centre of labours.⁸⁶ Murdock Brown extensively used the convicts as labourers in his plantations.⁸⁷ The people who had traditional masters with whom, they were working as attached labourers. In such cases, the tribes also work in the plantations during their off season.⁸⁸ But in some occasions the colonial authority used the force extensively to bring labourers to the plantations, especially the tribes.⁸⁹ They were not ready to settle in the vicinity of these plantations. In the beginning the natives were hostile towards the plantations and a partial destruction of the plantation was happened during the Pazhassi rebellion. This shows a clear proof of their attitude⁹⁰. Brown tackled the problem of the shortage of labour by purchasing slaves from Malabar and elsewhere and in order to avoid any chances of identification they were

⁸⁵ A. Sarada Raju, *Economic Conditions in the Madras Presidency*, Madras, 1941, p. 283

⁸⁶ *Report of South India Planters Enquiry Committee*, Madras, 1896, p. 10-1

⁸⁷ *Malabar Special Commission (Diaries)* Vol. No. 1698. p. 161.

⁸⁸ See *Malabar Commission Diaries*. Vol. 1693. p. 11

⁸⁹ Sharit Bhowrnik, *Class Formation in the Plantation System*, New Delhi, 1981, p. 42.

⁹⁰ K. K. N. Kurup, *History of Tellicherry Factory*, Calicut University, 1985, p. 285.

compelled to remove their *Kudumas* or such other distinguishing marks of their respective castes. They were disguised as *Mappila* children and accepted *Mappila* names. This social change and emergence of a new class can be seen in the emerging coffee and tea plantations from the middle of the nineteenth century onwards and on the rubber plantations by the early 20th century. Women were employed in maximum numbers in tea and to a lesser extent in coffee and even lesser in rubber; the gender division was in tune with the colonial interests.

Rules under section (a), Madras Forest Act

In October 1900, rules were notified under section 33, clause (a) of the Madras Forest Act V 1882 (vide B.P.Forest No.496, dated 5th December 1900) applying the provisions of the clauses (b), (c), and (f) of section 26 of the Act to the Nilambur forests. In August 1903 a notification was published, in the supplement to the District Gazette, defining the areas under special fire protection and the public and private rights of way therein.⁹¹

The department extensively employed the labours in the plantation throughout the year, especially the male workers. Planting, weeding, dragging, rafting and floating (June to December), felling, preparation of site for new planting and fire protection from January to May, miscellaneous works such as road and building construction repairs off and on throughout the year. These categories of labourers were the permanent labours. The largest number of coolies was required from June to December. The permanent coolies have been employed year in and year out for a long time. The coolies were started to work in the plantations or they were employed as a boy and working to the last. They were expert axe men, raft men etc and are the main source of recruitment for the post of watchers and guards. The *nayars*, *tiyyas* and the other natives of Nilambur, Amarambalam and the surrounding hamlets were also used. There were average 60 to 80 and at a maximum

⁹¹ R. Bourne IFS, *Nilambur Valley working plan*. Vol. II Future Management 1917-18, Madras, 1921, p. 9

by 160 coolies were employed or recruited. The local men and the imported labourers, such as certain hill mens 'Malakars' were employed for felling and in some occasions, the special labourers were also employed as sawyers and masons etc.

The wages were varied from Nilambur range and Amarabalam range.prior to 1860 daily wages varied from 1 *anna* 3 *paise* to 4 *annas*, but later this was uniformly raised to 4 *annas* for men. At some later date they were raised to 4 *annas* 6 pies in Nilambur and 5 *annas* in Amarambalam range. But the private estates like Kerala, Pullangode and Edivanna decided to raise their rates for male labour to 6 *annas* per diem , the department raised its rates to 5 ½ *annas* in Nilambur and 6 *annas* in the Amarambalam ranges. Later it also rose to 6 *annas* and 7 *annas* respectively. The District Forest Officer should also be empowered to pay Government coolies at any time with rice at cost price or in times of scarcity at minimum rate of seven measures to the rupees. The planters do this and unless government is prepared to do the same they cannot expect to keep their labour. 150 to 170 coolies a day were not sufficient for the two ranges, there they faced the difficulty in getting the labours, thus started the mass recruits. The problems of weeding, it was required more labours otherwise it would be more seriously affected the plants. Thus at least 200 coolies a day were employed, 100 in each ranges for the proper execution of the works.⁹²

Francis Buchanan indicates the *jenmi*-tribal relations and it was a kind of bonded labor system. The tribal communities like Paniyas were the agrestic slaves and they were bought and sold with their lands. These lands were bounded with them as slave labors. The jenmies with their hold over lands transformed the tribals as dependents of their masters and tamed them as servitude. . The tribes were employed in the works of cutting of bamboos and other commercial activities, like

⁹² *Ibid.*, p. 37

floating of timbers to Calicut through Rivers and the tribal women were also used or employed as labours in making ropes for this commercial purpose(for raft making)⁹³.

Table 6.18

Table showing the Labour recruitment in South India in 1896 (in percentage)

Region	Local Labour	Labour Imported from British India	Labour Imported from Mysore
Wayanad	20.0	54.0	26
Nilgiris	17.5	44.5	38
Coorg	20.0	53.0	27
My sore	37.5	62.5	-
Travancore	20.0	60.0	20
Cochin	4.0	96.0	-

Source: South India Planters Enquiry Committee Report, 1896.

Before the advent of European plantations the people were engaged in the traditional jobs in agriculture and allied fields. The employers were mainly the *Jemmies* or land lords. Work in the agriculture sector was mainly associated with paddy cultivation which was seasonal. When there was no work in this sectors the labourers turned to other fields of wage earnings. Often works in the paddy fields were traditional and there was an intimate relation between the employer and employee. In small scale cultivation and household firms, there was not much distinction between the capitalist and labourers. Often the sons or the brothers or other members of the family of the capitalist would be the labourers. But labour in the plantations was different. There was a clear cut distinction between the employer and employees. In some plantation estates a single employer or a small group was giving employment to hundreds of labourers. Unlike the field of paddy cultivation the plantation provided work throughout the year. The managers and

⁹³ Francis Buchanan, *A Journey from Madras through the Countries of Mysore, Canara and Malabar*, . Vol. II, London, 1807, pp. 471, 472

high officers belonged to the highest category of employees in the plantations. They did not associate with the labourers. At the same time they sought association with same positioned officers in the other same categories in the Nilgiri and Ooty plantations.⁹⁴ The children of the officers in the plantations of South Malabar were sent to study at Ooty. The European officers in the plantations formed an important segment of the European population in the area covered by the present Malappuram District. Work in the plantation was different from other fields in the case that it demanded skilled labour. Along with the development of Estates there emerged a labour culture very much different from the previous epoch. There was a clear cut distinction between labourers and capitalists. Thus there arose class consciousness among the working class. This labour system was not familiar to the native people.

Patis (Line Houses)

The laborers were given quarters to live line houses or *patis*. This *patis* were not having many facilities. They were very much congested. The laborers and his family had to live in these *patis*. The sanitary facilities in the *patis* were inadequate. The bulk of the laborers were recruited from village areas and they were not accustomed to such a congested life. During the colonial period, there was a system of recruiting laborers for work in the plantations and the like in other colonies. This was called Indenture system.⁹⁵ The laborers to the plantations in the region were recruited in the same manner. We have seen how the *kankanis* or brokers used to collect laborers from village areas by giving golden hopes to their families. But the *kankanis* were gone on exploiting the labourers.

This existence of the plantations brought about a change in the nature of its population. The Population belonging to different religion, caste and communities

⁹⁴ G. C. Karakkal, *Dubber (Mal)*, Drive Publications, Calicut, 2005, pp. 85-90

⁹⁵ R. C. Majumdar (ed), *Struggle for Independence*, Vol. XI, Bharatiya Vidhya Bhavan, Bombay, 1969, p. 299.

flocked to the estates and its surroundings. Along with the development of the Estates, there was an ethnographic movement. People from the neighbouring areas came to there in search of labor opportunities. Through these estates, new cultural elements were penetrating to the area of Malabar. Thus it caused for the emergence of mixed population in the area which were quite new to the people of the locality.

The Europeans officers of the plantations were living in typical western fashion. Their life styles were a new thing to the local people. They used to play games like Cricket, Tennis and Football etc. Mananthavady, the centre of North Wayanad, became an important town and centre of brisk activity with a European club and Race Course. The European planters of Wayanad formed their Association known as the Wayanad Planters Association in 1857 and it was one of the earliest associations affiliated to UPASI.⁹⁶ These were not known to the rural people. Slowly the local people studied these games. The people knew about the life styles and habits of the officers from their cooks, menial labours and the like. These European habits and games have been another legacy of the plantation life. After those plantations, the model of such plantation developed small, plantations of various crops. Thus the people of Malabar turned into new style of cultivation. Formerly in the traditional style in the upland, there were various kinds of plants. Now they turned to the cultivation of single crops. Thus it result the entire economic development of the localities of Malabar. By the 1880s its industries consisted of weaving, coffee and ginger processing, oil processing, oil extraction, coir making and manufacture of toddy and liquor. No large-scale industry was started in Malabar up to the close of the nineteenth century. It was only during the early decades of the twentieth century that some industries were started there. These include cotton spinning, weaving, saw mills, match factories, brick and tile works.

⁹⁶ Planting Directory of Southern India, *op.cit.*, p. 150

With the advent of the plantations and plantation ecology the soft traditional villages of Malabar began to see face to face aspects of colonialism including exploitation. The human societies have expanded every corner of the Malabar and have transformed landscapes in significant and irreversible ways. Major and significant changes in the environment and ecology of the Malabar were brought about in the colonial period after 1800. The natural vegetation consist of swampy grasslands in the valleys, with dense moist deciduous and evergreen forests on the hill slopes were changed. The area thus came under intensive plantation cropping. The utilitarian logic, the industrial mode of the resource and land use and the evolution of ecological man was engaged. The man is changing; whose encounters turned the natural environment into the built environment, aesthetization of environment. Changes in the landscape lead to the changes in the structure of the society.

Gold Fields

The reefs seem to have been worked by the natives at least two centuries ago, but the official history of the industry begins only in 1793. When the governor of Bombay applied to the local official for information on the subject of Gold mining and washing the matter was taken up again in 1828 and in 1831 the collector reported that the privilege of collecting gold in the Wayanad and the Nilambur Valley below it had been farmed out for the preceding 40 or 50 years and that the metal was chiefly obtained by washing the soil in streambeds, paddy flats and Hill sides. Lieutenant Woodley Nicholson of the 49th native infantry and a Swiss watchmaker of Cannanore named H.L. Huguessin then explore the neighbourhoods of Devala and the Nilambur Valley where they found a regular set of mines with shafts from 10 to 50 feet deep worked by 500 or 600 *Mappilas* belonging to the Nilambur *thirumulpad*. They reported to the government in enthusiastic terms on the capabilities of the mines.

The next important attempt to work the mines on a large scale begin in 1860s when the Wayanad had begun to be opened up for coffee and other traces of the old gold working attracted the attention of the planters, some of them had seen the Australian Gold Fields and in 1874 was started the Alpha Gold mining company which began operations in a valley about a mile and a half south of Devala. Government deputed Dr. W.King of the Geological Survey to examine the country and he reported that the Nambalakkode Amazon at any rate quartz crushing should be a success. Other companies were started and in 1879 the Government of India employed, Mr.Brough Smyth (For many years secretary for mines in Victoria and held to be the greatest authority on the subject in Australia) to examine the Wayanad reefs. According to him or his reports suggest that in 1880 a great boom in London stock market attracted others to this area. This resulted that 33 English companies were floated with an aggregate in nominal capital of over 4 million pounds sterling and Expensive machinery was sent out. And sensational reports came from and shares were caught at 50. 75 and even 100% premium but in 2 years 15 of 33 companies had passed into the hands of the liquidators and the yields obtained by the others were so poor (up to the first quarter of 1883, 3597 tons had yielded, only 9641 dwts of gold on an average of 2.7 per ton) for operations were gradually suspended and nothing now remains but melancholy relics of past activity in the shape of a rusty missionary derelict Bungalows and abandoned roads⁹⁷.

In 1901 local Syndicate attempted unsuccessfully to reopen some of the reefs in the Nilgiri Wayanad and about the same time the Government of India deputed, Mr. Haydon of the Geological survey and Dr.Hatch, the Survey's mining specialist to examine the mines and test the belief undoubtedly still current in many quarters that the previous failures were in large part due to unsuitable appliances as well as insufficient supervision. Samples were taken systematically from numerous reefs

⁹⁷ Innes, *op.cit.*, pp. 15-16

not only in the Nilgiri- Wayanad but also in the neighbourhoods of Meppadi and Vaitiri and the conclusion arrived at was that it is clear that with the methods at present available for the treatment of low grade ores there is no hope of Gold mining in the Wayanad becoming remunerative.

There had been *Ponnarippu* or tax on washing for Gold was one of the sources of the revenue of the early Malabar Rajas. The *thirumulpad* of Nilambur pays a small royalty for the privilege of washing for gold in the upper streams of Beypore river and traces of ancient surface workings are visible here and there in the valley. There has been no mining for gold, Iron or other minerals in the district since 1915. A license for prospecting for gold was granted to a European Engineer in 1926, and it was cancelled in 1929.

Malabar Might becomes one of the greatest industrial centres in India during this time. But 100 years ago when Dr. Buchanan travelled through the district as many as 34 forges were work at in the vicinity of Angadippuram in Valluvanad and in 1848 iron works started at Beypore. But the works failed and the native industry killed by the influx of cheaper English material is moribund and only at one or two forges near Karuvarakundu in the Eranad Taluk are small quantities of iron still smelted by the primitive processes described. And apart from gold and iron the mineral wealth of Malabar is insignificant. Mica is fairly common and seams of coal or rather carboniferous strata occur at Beypore, Cannanore and near Trithala in the Ponnani Taluk⁹⁸.

The Growth of Medical Service

The British medical policies and the role played by institutions such as hospitals and asylums in implementing public health policies in colonial India had

⁹⁸ *Ibid.*, pp. 16-18

far reaching effects⁹⁹. The growth of medical service had accompanied by the provincial medical and scientific societies each with its scientific journal. Both these developments served to accelerate and enrich the diffusion of scientific ideas of all kinds amongst the European intellectual elite, not least amongst those for whom new thinking about the natural environment had become directly relevant. In February 1840 the court of directors was clearly shown in the review it undertook of the development of forest policy between 1800 and April 1839. First of all, the court even questioned the need to resurvey the Malabar forests, on that ground that surveys had already been carried out in 1805 and 1806. The complete inability of the court to appreciate the dynamics of the change of land use and the limitability of natural resources in India was much evidence at this time. In harnessing the ecological facts of the forest clearance and drought to the threat of climatic change and famine as well as to possible loss of production and revenue the surgeons had uncovered an apparently unassailable argument.

The medical environmentalists had played a major role in shaping the history of the environment of India. Those peoples' intervention and their reports and suggestions had a great impact. It represents a land mark in the history of the colonial response to the environmental change. It can be compared both in scope and impact it had on government conservation policy with the impact of the Chadwick report of 1842 on public health policy in Britain. A permanent extension of the role of the state was being advocated in collective interests of private capital. The reports prescribed state intervention to control water and run-off and also justified state intervention on the basis of public health and disease. Lord Dalhousie as governor general started, to convert the environmentalism of the surgeons into an all India forest protection policy. The 'Dalhousie memorandum' of 1855 was the main basis for the centralised forest management policy adopted in India after 1860. Six EIC

⁹⁹ See also Biswamoy Pati and Mark Harrison (eds), *The Social History of Health and Medicine in Colonial India*, Routledge Studies in Asian History , London, 2009. p. 13

Surgeons and their success in promoting environmental interventionism as part the responsibility of the colonial state marked the continuing practical purposes of the consequences of colonialism and industrialism. The destruction of rural landscapes and about species extinctions, the role of man causing extinctions was evident in the environmental control by the state.

Cleghorn in his books deprecated the extension of railways into the high lands of southern India largely for aesthetic reasons. His opinions later echoed by Sir Richard temple, which also attributed some of the famines of the 1870s to the indirect effects of the deforestation for railway purposes. Moreover both Cleghorn and Wight attributed the principal cause of damaging deforestation in the Nilgiri Hills to the activities of the European planters who believed the real villains of the piece. Cleghorn further commented in 1869 on the high flow of capital into the hills and the inevitable destruction that would result. Some of this hostility to the activities of the European private capital can even be identified in the operating methods of the Madras Forest Service at that time he was its chief conservator, especially in the differential treatment accorded to particular privileged groups of tribal shifting cultivators in comparison with lowland Indian incomers and European planters¹⁰⁰.

The needs of the conservation propagandists increased particularly when combined after the 1860s with threat of shortages of urban firewood and timber for railway sleepers. The consequences of artificially produced climatic change which primarily motivated the entry of government into extensive state forest control and started bring about the exclusion of private capital from forestry activity after 1847. Imperial timber needs certainly became a factor in forest policy after 1862 once railway building was commenced. By the time raw material needs did actually become more urgent, the principle of state forest control for reason of firewood

¹⁰⁰ *Ibid.*, pp. 466-67

supply, soil and water conservation and famine prevention was already well established.

Hospitals

Civil hospitals were first opened in Malabar in the middle of the 19th century. In 1845 the first public hospital was opened at Calicut, and after the other places. 20 years later when municipalities were first constituted all the municipal towns were provided with similar Institutions and the hospitals. The local boards which began to function about the same time also opened the hospitals or dispensaries gradually at all Taluk centres and at important in villages like and Angadipuram. In 1928 the management hospitals were also started in many parts of Malabar and they were also paid the salary of the assistant surgeon in charge of the local fund hospitals. Two police hospital were started at Malappuram and Kannur. Public health department was opened in 1925 and the Madras Act III of 1899 has been enforced in the towns of the district and the sanitation was also started. The staffs of sweepers in the more important villages and Bazaar were appointed. The vaccination was started in Malabar as early as in 1801. In 1803 the sub collector was directed to exert themselves. Vaccination was made compulsory in the entire municipality and in the district exclusive of Wayanad Taluk and Attapady villages in 1914 and in 1925. The plague was first reported in the Malabar and it was in 1906. Since 1906 the largest number of death from plague in any year was 595 in 1908. For localized outbreaks of pneumonia located in 1922 and a lunatic Asylum opened in May 1872 is maintained by government. Since 1892 criminal lunatics have been sent to the asylum at Madras¹⁰¹.

¹⁰¹ *Ibid.*, p. 289

Improvising Locality – Emergence of Markets

There can be seen the emergence of new markets in Malabar, People went to the weekly markets. In due course of development, now catering to the needs of the officers, labourers and other employees of the estates, there sprang up shops and small *angadis*. New items of consumption also were introduced in this market. Unlike in the salt tax in toxicating liquor is one sanctioned by the traditions of Malabar. Hindu Rajas and the *Muhammadans* Levied a sort of profession tax upon drawers of Toddy and distillers of arrack. This Tax under the name of *Katti chatti* the knife and still tax was continued by the British government. And long survival in parts of the district. The tax was enhanced by Major Macleod principal Collector in 1801-1802, but after his time no further increase was made. The defects of the system were glaring and farming was gradually introduced first in to the principal towns and the Wayanad and Cochin taluks and finally by 1860. The effect on the revenue was magical, between 1810 and 1860 the revenue had been almost stationary and they had never exceed Rs 70,000 but in 1869 the rents Rose to Rs 2,28,000 and in 1872 they were sold for 3 years for an annual sum of Rs 2,77,950¹⁰².

In 1898-99 an important innovation was made, the permission to sell jaggery or molasses was accorded to outside distilleries and Messrs Parry & Co at once opened the depot. In 1899- 1900 government dissatisfied with the working of the Toddy arrack contractors bought up all the distilleries and in the following gave the contract for the two districts to Messrs Parry& Co. and the contract was renewed in 1903 for 3 years. The contract expired at the end of September 1906 and from October of that year the sale of toddy arrack at government distilleries. Foreign liquor has been prohibited and the Exclusive privilege of manufacturing and supplying molasses Iraq has been renewed to the same contractor for a period of a

¹⁰² Innes, *op.cit.*, p. 376

three and a half years. Messrs Parry&Co has ever since continued to be the contract suppliers for the district the contract being renewed every year. Since 1st April 1923 practical for all purposes considered as foreign liquor as its sale is permitted under the foreign liquor licence only. The toddy revenue is rising on the tree tax system. Licences to tap were issued, the first two trees are issued a half yearly at a cost of Rs 1.8.0 and Rs 3 respectively the tax on Palmyra is Rs 1 per annum. Since 1892 Tapping for sweet toddy in Malabar has been controlled by the *abkari* department with the object of safeguarding the revenue from fermented toddy. The colonial taxation policies also stood in the way of the expansion of economic activities and employment generation outside the agricultural sector. Colonial administration imposed taxes on skilled workers such as carpenters, ironsmiths etc. and also on implements such as handlooms, oil presses, fishnets etc. A very high rate of tax was levied on this category of people.

During the early decades of the nineteenth century, the toddy tappers were required to take licenses and had to pay tax at the rate of one silver *panam* per month or Rs. 2 and two-fifth per year in 1813¹⁰³. A direct tax was also levied on the fishing nets and the huts of fishermen, thereby discouraging fishing activities. The policy of declaring salt as a state monopoly and importing the entire quantity of salt from outside Malabar resulted in loss of employment to many fisher folk whose alternative occupation was salt-making. The ferry tax was levied in such a way that it favoured the rich people with tax concession while full rates of tax were collected from poor people. Houses, shops bazaars were also taxed. No taxes levied on trees. So tapped nor have the trees been marked since 1900; but licences for which no fee is charged must be taken out for tapping and the toddy must be drawn in pots freshly coated with lime to prevent fermentation. The cultivation of the hemp plant was

¹⁰³ Thomas Warden, *Report on the Revenue System in Malabar*, Calicut, 1813, p. 4

prohibited in 1897, the hemp and opium before 1897 was a freely cultivated in the Wayanad Taluk and supplied the demand for Malabar¹⁰⁴.

The employers of the estates were given cash salaries and this money increased the purchasing power. New educational institutions were started; English, Tamil, Malayalam and Arabic were taught. For years these institutions was functioning there as a legacy of colonial period.

Civil Justice and British Courts

In December 1792 a temporary Court of Justice is presided over by each of the joint Commissioner in turn was established in Calicut. 3 months later when Mr. Farmer was appointed supervisor of Malabar this Court was abolished. Subject to the appellate authority of the supervisor, his assistant was vested with Civil and criminal jurisdiction in Calicut and its vicinity. And the northern and southern superintends with like powers in their respective divisions. 7 local Darogas were established on July 1st 1793. In 1802 an important step in advance was made in the Separation of the judicial from the executive administration a provincial Court was established that a Tellicherry presided over by three judges to home when they periodically on circuit.

Jilla Courts were established in Tellicherry and Calicut and a Registrar's court at Calicut in 1812 and auxiliary Zilla Court was set up in Cochin and in 1816 district Munsif Court was instituted. All these save the last were abolished in 1845 and their places were taken by the Civil and Sessions court of Tellicherry and Calicut, the subordinate court at Calicut and Principal Sudr Amins court at Tellicherry. In 1875 the designation of the court was changed. The Civil and sessions judge became the District and session judges of North and South and the principal Sudr Amins become subordinate judges. The district is divided into two

¹⁰⁴ *Ibid.*, p. 384

judgeships of north and south Malabar with their headquarters at Tellicherry and Calicut. In the North District there are a subordinate judge's court at Tellicherry and a district Munsif court at Badagara. In south sub Courts set up at different places, Calicut, Palghat and Ottapalam. District Munsif Court at different parts of the district. Under the Civil courts Act the last amended and additional sub judge has been appointed to the sub courts.

There were in 1931, 30 superior civil courts working in the district for more than in any other district of the presidency. Village headman was empowered under the Village Courts Act of 1889 to try petty suits where the value of the cause of action does not exceed Rs 20 and the system of trial by bench courts under section 9 of the same Act is in force in many areas. More than a quarter of the total number of suits launched in the presidency in 1903 was filed in the village courts. The volume of litigation in the district was immense, in the last 20 years Malabar has contributed one eighth of the total litigation of the presidency. In the last 10 years and Average of 1 in every 56 persons in North Malabar has been engaged in litigation and one in every 99 persons in South Malabar. *Panchayat* courts which have been established in several villages under the Madras Village Court Act 1 of 1888 are sometimes also invested with a criminal power. Such *Panchayat* courts replace the court of the village magistrate and election to the court is by open vote and the members elected their own president¹⁰⁵.

Formation of New Tribal Ecology and Human Ecology

Human ecology as science understands, human -environment interaction as the interaction between the human social system and the rest of the ecosystem. A social system is defined as everything about people, their population and the psychology and social organizations that shape their behaviour. It also looks into,

¹⁰⁵ *Ibid.*, pp. 385, 86, 87

how the people and environment function together by tracing chains of effects through ecosystem and human society¹⁰⁶. The colonial intervention in Malabar brought distinct encounters and experiences to the tribal folks and others in this locality. The imperial impacts were inevitably multidimensional with many a legacy still influencing and shaping the modern life styles of the people. The Britishers through their economic expansion, political strategy, military conquests and territorial controls redesigned the life of lands and people. The immediate impact of these engagements was the alteration of innumerable environmental relationships and they people were relentless in transformation of environment and landscapes. The colonial administration in Malabar was a period of diffusion, exchange, transmission, imposition, making and circulation of scientific ideas, and even the knowledge, technology and technological practices in between the periods of occupation, and the establishment of telegraph communication, and mines and metallurgical works were designed to engineer India into a modern, productive colony¹⁰⁷. Different policies of the colonial government in the name of development and progress such as conservation, soil management, botanical networks, disease controls and so on brought unprecedented consequences in the socio-ecological sphere of Malabar. The colonial competencies and their work for establishing an empire in India gave birth to the curious minded people, some of whom were categorised as surveyors, cartographers, naturalists, botanists, Engineers and so on with innumerable explorations and documentations reshaped the practices and everyday life of the tribals of Malabar since the latter half of the 19th century and the first half of the 20th century. The immediate result of this was the polycentric pattern of life. Exploitation and exploration nurtured new outlook on tropics as places of

¹⁰⁶ Geetha Devi. TV, *Understanding Human Ecology, Knowledge, Ethics and Politics*, Routledge, New York, 2019, p. 4

¹⁰⁷ See David Arnold, *Science, Technology and Medicine in Colonial India*, Cambridge University Press, New York, 2000

abundance and fertility¹⁰⁸. The colonial rule was based on the dictum of ‘profit and rule’ which automatically transfused or arranged the life of the people with a great extent in the coming years. The tribes lost their homogenous pattern of life with this profit and rule policy of the alien rule. The emergence of the entrepreneurial landlordism also reshaped their life with new improvement programmes, which brought unmatched velocity in the changes of biotic material world and economic welding. In the earlier period hunting was for the livelihood but with colonial frame it became ‘resource’, hunting animals as resource. The practice of the rituals was also changed with the coming of colonial elite hierarchy and the changes of the ‘wildness’.

The colonial authority appointed committees to study about the tribes in Malabar, especially in Wynad. Such studies were conducted by Thurston, Samuel Meteer, Buchanan, William Logan and others made a reference that Wayanad was very rich in natural resources and the natives and tribals were possessing rich knowledge in the use of indigenous medicinal plants, quality of soil and climatic variations and they needed protection and care from ‘above’. This care from above destined with the transformation of the life of the tribes. The survey and assessment of wastes brought hill areas under an unprecedented degree of state control. In 1856 Major Seaton began encouraging growing teak saplings in their rice fields. Once the tribal cultivators moved on to fresh plots; the trees become government property. Brandis enforced strict regulations to control shifting agriculture and curb fines. Under British forestry, the local inhabitants were either totally excluded or else incorporated into a regime of control. The manipulation of agrarian practice the main thrust of strategies of ‘improvement’¹⁰⁹

¹⁰⁸ David Arnold. *The Tropics and the Traveling Gaze: India, Landscape and Science, 1800-1856*. University of Washington Press, Washington, 2006, p. 298

¹⁰⁹ Mahesh Rangarajan, *Fencing the Forest, conservation and Ecological Change in India's Central Provinces 1860-1914*, OUP, Delhi, 1996. pp. 24, 28

There occurred a significant shift away from the 'rights' of the tribal communities to their 'privileges'. The British also tried to regulate the use of forests by groups on the fringes of the settled arable. The creation of an all India Imperial Forest Service and the enactment of legislation marked a major change in the conservationist policy. Attempted to exclude rural forest users and promote the growth of commercially valuable species on a larger scale than ever before¹¹⁰. Indigenous forest users were stigmatized for being inefficient and destructive. Foresters and other officials bore down on tribal cultivators and hunters went beyond utilitarian in cornering forest wealth. Pastoral and tribal peoples were decisively driven back, to land outside civilized space by 1900. The degree of intrusion in the production process was not merely in terms of a change in patterns of land ownership or control but the new rules of manage and control the forest and resources. The forest department provided a unified focus at an all India level for a major revolution in styles of land management. With reference to the shifting cultivators, the entire pattern of life and settlement was sought to be transformed.

Tribal life has undergone tremendous social and cultural changes during the colonial period because of the contact with the outside world. The result of this contact was the beginning of the process of detribalization. They were forced to adapt on tribal ways of life and social values. The increasing migration into the tribal areas and the expanding process of urbanization has also destroyed the exclusivity and insularity of tribal life and created particular socio-cultural milieu. The socio-economic aspects of the tribes also changed with the influence of the peasant migration to the tribal areas. The expansion of the settlements of the migrant people into the tribal lands caused the alienation. The newly settled non tribes in their area converted their land and themselves into wage labours and dependant peasants. The percolation of the urban characteristics and habits enforced them to

¹¹⁰ *Ibid.*, pp. 31, 33

dilute many of their traditional practices. Advance of the colonialism and the advancing material prosperity of the migrant settlers for whom commercial farming has brought forth considerable material progress. The loss of ancestral holdings, stringent forest laws restricting free access into forest lands, urbanism and the resultant increase in the prices all have reduced the tribal life into a new level of pathetic.

The colonial intrusions resulted the changes in the land used patterns and utilization of the resources. The so called large scale developmental activities also caused for the transformation of the tribal life and existence. For instance the use of modern medicine brought many changes in their pattern of life and life styles, it affected routine life. Deforestation and encroachment of the tribal area and lands caused the extinction of the medicinal herbs and its availability in the forests. This was also forced them to seek alternative medicines. The contact with the non tribal world brought drastic changes in the techno-economic scene of the tribes. The farming methods and cropping models also caused the ecological changes and hence the shift in the conventional home structure and adaptability. The land owning cultivators and moderate use of the resources and harmonious existence with nature and utilization also restructured. The man-forest interaction in the area also changed forever. Traditional rights of the tribes were curtailed and started exclusion of them in many ways. The *Paniya* and *Adiya* tribal people were converted into the wage labourers and they were widely used in Wynad for a long period since the advent of plantation industry. The *Adiya* were used in the northern part and *Paniya* were in the southern part. *Paniya* were the largest agricultural labours in Wynad. Later on they become the private property of the owners. *Kurumas*, *Kattunaikkas* and *Urali kurumas* also employed in the agricultural fields of the *janmies* and agents of power for various purposes. *Kurumbas* were extensively used in the plantations and other allied works as they were the best axe men and the other tribes also joined in the

works because of the constant persuasion of the jobbers of the planters. The tribal private forests also brought under their control. Later there occurred a switch over from commercial crops to food crops as a result of the governmental policies. The alteration of the situation compelled them to undergo changes in irrevocable ways. The Muslim traders later used the tribal folk especially the *Paniya* community for their vested interests. They gave liquor and betel nut for work and used them as a tool for to curb the forest land, products and other exploitative means. Thus the traders expanded their territories into the interior parts of the forests.

The ecosystem, once bountiful with diverse flora and fauna, has undergone tremendous change owing to the conversion of the semi-deciduous forests into plantations, and to non-tribal migration, deforestation, and various development activities. Tribal people became totally dependent on market economy because of the changes of the socio-economic life. The transformation of the younger generation as wage labour was due to the push of the resource constraints and other factors. As the wage labour and their interactions with the non tribes at workplaces, the practices of the borrowing money from non tribes and other usual habits brought a space for them in their social life. The New Legal systems¹¹¹ and its influence also transformed the community into a life totally dependent on wage labour and market practices. They said that “At present we neither have our forest nor have land to live. We lost everything.” Traditional indigenous societies where relational identities receive greater value than individualistic identities, the concept of property and possession is not as strongly evident from an individualistic point of view¹¹².

¹¹¹ See Pathak, A. *Law; Strategies, Ideologies: Legislating Forests in Colonial India*. Oxford University Press, Delhi, 2002.

¹¹² Seetha Kakkoth, ‘No space of our own’ The vanishing South Indian hunter-gatherers’ experience in space sharing, *Hunter Gatherer Research* 3. 3 Issn 1476-4261, Liverpool University Press, 2019, pp. 506-508

Some tribal people expressed emotions like, “the forest has enough for us”, “as long as forest is here, they have no worry”, and “they get enough from their *chemmam*” and so on. But in course of time as the system has begun to weaken, other neighbouring communities, like once hostile *Pathi naicken*, were admitted into their *chemmam* relationships through marriage. Competition from non-tribes for resources within the *chemmam* areas also contributes to changes in the traditional support system. Their interaction with private contractors and the visit in their habitat also caused for the weakening of their socio-cultural systems. Their hunting activities are reduced or restricted by forest laws, and foraging and fishing activities are occasionally challenged by non-tribes. Thousands of acres of semi-deciduous forests have been converted into teak and rubber plantations. Teak plantation activities have become intense in the 20th century. The Karulai Forest Range (covering an area of 265.608sq.km), where the majority of the tribes like *Aranadan* do foraging, was converted to teak plantation.¹¹³

The planting of teak trees also requires the bringing in of non-tribal labourers in large numbers even in the second and third decades of twentieth century. In teak plantations, every four years there is thinning and logging activities, for which the non-tribes are deployed. It is also observed that after felling the forests, the area is given for cultivating various dry land crops. These cultivations are undertaken by the non-tribes. Changes in the habitat owing to conversion of the semi-deciduous forests into plantations, non-tribal migration, deforestation and development activities resulted in competition with the other communities for subsistence and as a result the tribal lost control over the resources of their area, though their elders still pursue foraging in their lost land. The physical environment of the tribal community has been totally changed owing to the conversion of their habitat (lower valley forests) into monoculture teak and rubber plantations and the resultant non-tribal

¹¹³ Seetha Kakkoth, ‘*Social support for Hunter-gatherers: care or curse?*’, *Economic & Political Weekly* september 5, 2009 Vol xliv no 36, pp. 71, 72

migration, deforestation and various other development activities. In course of time the significance of *chemmam* was declined and when the environment is being challenged, the elderly may knowingly or unknowingly try to make the changing environment more conducive to their own lives¹¹⁴.

The economic structure of the tribals changed and, affected the man-land relationship among the tribals and had significant regional variations. In Malabar the cultivating tribals were dispossessed. As a result of this historical process, the tribal peasantry came to be divided broadly into two categories, viz, the landed and the landless. Thus, among the tribals, landlessness-a problem unknown in their traditional society-became a grim reality. Obviously, the extent of landlessness varied from one region to another, large numbers of the *Kurichians* and the *Kurumans* who were traditionally landholding tribes, were dispossessed of their lands gradually from the middle of the 19th century in the wake of the emergence and expansion of a land market in the forest regions. Linked with the market, there was a gradual expansion of money economy as foreign demand for certain garden products provided incentive for merchants to trade in these commodities. Thus cultivation based on small holdings promoted expansion of trade. William Logan spoke about the proposed plan to remove the 'aboriginal inhabitants' or the *Kurichians* who carried on *Punam* cultivation and to work for the improvement of growth of the *Kanoth* forest, which was being surveyed in 1887¹¹⁵. As the successive streams of non-tribal immigrants pushed the tribals to inferior lands, the proportion of cultivable land to the total area possessed progressively declined. Land

¹¹⁴ Seetha Kakkoth, 'Environment And The Aging Experience Among South Indian Hunter-Gatherers', *Asia Research Centre Working Paper 53*, London School of Economics & Political Science, London, 2011, pp. 27-28, 30

¹¹⁵ Susan Thomas, 'Colonial Modernisation of Agriculture in Malabar', *Proceedings of the Indian History Congress*, 1999, Vol. 60, Diamond jubilee (1999), pp. 617, 622

disputes between the tribals and non-tribal immigrants became common. The tribes were attacked by wild animals due to the locational disadvantages of the tribal agricultural holdings, once the animals and tribes lived together by accepting the claim of their own territories and due to the penetration of market forces, the traditional monoculture, which consisted of cultivation of coarse cereals such as *ragi*, *cholan*, etc, has given place to diversified agriculture with commercial crops claiming a very high weightage in the crop-mix among tribal agriculturists. The tribal work-force was dependent on agriculture as self-cultivator, the subsequent displacement of tribal cultivators from their lands resulted in a high proportion of them being reduced to the status of agricultural labourers¹¹⁶.

The *jenmies* with their hold over lands transformed the tribals as dependents of their masters and tamed them as servitude. The *jenmies* collected forest goods by the tribes were sold to the merchants from their habitats. They acted as the intermediaries between the tribes and the merchants. In the course of time with the coming of wealthy Mappilas and other non tribals, and the areas in which they dominated also enslaved the tribals. The tribes like *Paniyans* were given the either agriculture works or the works like look after the elephants or capture the elephants. They were a tool or instruments in the hands of the *jenmies* for collecting or exploiting the forest wealth with many dimensions. They were also compelled to move to the interior parts of the forest with the advance of the immigrant people. the increase of the land values and its demands in changing economic scenarios, the owners of the lands sold the lands along with the tribes who were live there to the planters. This was specially done the *jenmies* or the local chiefs. The tribes became

¹¹⁶ M. Kunhaman, 'The Tribal Economy of Kerala: An Intra-Regional Analysis', *Economic and Political Weekly*, Mar. 16, 1985, Vol. 20, No. 11 (Mar. 16, 1985), pp. 467-470.

the bonded labours in the plantations for low wages. Thus they rearranged the structure and nature of the life and environment. The commercialization of agriculture led to the pauperization of the tribals. And they were compelled to vacate their traditional habitat to the more interior forests. In 1896 the British struck at the livelihood rights of the tribals by withdrawing the privileges given to them to collect and sell firewood and minor forest produce and the Forest Act of 1927 changed the rights of communities' into the privileges of persons; and this paved the way for the government of India to reduce the privileges into mere concessions' by the Forest Policy of 1952. The main aim of The Indian Forest Act of 1927 was to increasing the revenue of the government conserving the forest resources for export. Therewith started the proletarianisation of the tribals and which accelerated by the large scale migration of plainsmen from Travancore and Cochin which began in 1920s. The process of migration also strengthened the dispossession, proletarianisation and pauperization of the tribals. The large scale migration of non tribals has radically altered the pattern of land holding, land use, labour opportunities and control over the local resources. A sizeable part of the lands cultivated by traditional *Jenmis* or land lords have passed on to the hands of settlers who were petty ryots. They are rarely in need of any hired labour. The transaction of land from landlords to the migrants, therefore, resulted in the displacement of tribals.¹¹⁷ The non tribal intruders illegally captured the forest lands and exploited them in many ways, alienated from their land, subjugated and converted them into mere labours. Their position in society became very inferior and certain extent the newly emerged class treated them as mere slaves, abrogated their mobilization and encroached the lands.

¹¹⁷ Fukka Ali, C. A, *Ethnohistory of Tribes in Malappuram District*, Ph.D Thesis, Unpublished, Calicut University, 2009, pp. 187, 190.

The coming of the Techno- scientific modernity also totally transformed the tribal civilization. When technology found its way in the thick forests of Ghats, tribals as the original inhabitants of the region were pushed to the periphery and their socio-cultural customs were superseded by sophisticated life practices in the plains. The *Kurichya* are considered as the first agricultural tribe who migrated from the plains of Malabar to Wayanad. The process of Institutionalization of forest properties was followed by alienation of the tribals from the forest and the British reports point out the restrictions imposed on the tribals in the use of forest properties. The imperialist expansion was made possible in the deep forests by opening of networks of roads and new means of transport and communications¹¹⁸.

Colonial studies and references clearly indicates that, how the colonial interventions and powers restructured and redrawn the life and culture, even their existence from above. Colonialism and the colonial people tamed the nature along with the tribes and other forest –dwellers in Malabar and other colonized areas. The importance of the tribal chiefs and their power and prestige in community also declined and they were also shrunken to the rules and regulations of the colonial administration. They also lost their administrative powers. The transformation or uproot of the real nature of the life of the tribes by segregating or isolating them from the land and started mistreatment and exploitation by others especially contractors and money lenders. The tribal people were isolated from the society and community. The forest laws realigned their life which resulted loss of livelihood and misery in their life. Oppression of contractors and intermediaries became a routine practice in their life. The forest department, a brainchild of the imperial ambitions,

¹¹⁸ Vinodan Navath, 'Secure Lives: on Drought, Disease and Tribal Life in Kerala', *Proceedings of the Indian History Congress*, 2016, Vol. 77 (2016), pp. 1092-1094.

functioned like an agent of the British and served the imperial purposes at different stages. Control over forest and its resource utilization was viewed by the British as a crucial factor maintaining their hold over India, for economic, political and military reasons. Forest resources of India were exploited at different stages and it had a crucial phase, an ecological watershed during the colonial period. The British in the course of dominating India intensively felt the need for monopolising the forest wealth as an exigency of the colonial government. Thus the tribal 'space' in Malabar transformed or changed into tribal 'place'. Colonial intervention has left a legacy of its own in the localities of Malabar. It has made its indelible imprint on the life and culture of the human ecology of Malabar.

Chapter VII

Conclusion

The colonial intervention and the structural change in the pattern of life of the Malabar is an interesting problem for a historical research. It was interesting that, at what point of time in the history of Malabar this structural change had occurred and how it affected the ecology of Malabar also. The industrial requirements and the growing power of the British Empire was the real factor for these changes and its after effects in Malabar. It was with the extraction of the timber from Malabar, huge quantities of Malabar timber were extracted for the benefit of the British industries and technological developments. The forests of Malabar thus became a site of wealth and an integral and inevitable part of British colonialism in India. Thus the forest and the management of forest underwent many changes with the imposition of new knowledge and rationality. It was their necessity that opened the forests of Malabar into the integration of the global market and the exploration of the unexplored areas of the Malabar for British colonialism. British colonialism brought deeper level changes in the life and culture of the people of Malabar especially the tribal folk of Malabar. The notions of the forest people towards the forests underwent changes, due to the imposition of the new laws and policies of the colonizer. The period from the late 18th century onwards, the colonizer began to explore and utilize the forest resources of the Malabar with the introduction of scientific rationality and administrative schemes. The creation of the new Institutions and systems transformed or started transforming the local forests into a modern forest and the tribal people's life into a 'modern'. The thesis in the foregoing chapters was trying to historically locate and expose the spatial and temporal dimensions of the transformation mentioned above through a critical analysis of the evolution, growth, and patterns of changes with the coming of the

British forest management, forest acts, colonial knowledge, modernity, modality, railway, and the plantations on the life of people. The colonial attitudes and administrative reforms and new investments and initiatives also have analyzed.

The forests of Malabar were a source of means for the British. Their political and economic ambition in colonizing impenetrable tracts of virgin forests in various ranges of forests of Malabar was an important policy during the last decades of the eighteenth century. The teaks and other timber resources of the Malabar forest together with other sylvan resources were destined to reach the imperial purposes- especially the development of the railway. They well studied the forest and ecology of Malabar with Exploration, Surveys, Documentation and Reports. These were mainly carried out by various stakeholders of the colonial authorities during the eighteenth and nineteenth centuries. Military officials, forest engineers, travelers, forest officials, and medical officials and scientists were the notable bureaucrats among this category. The knowledge and the experiences produced by these people and their engagements brought the blueprint of the Malabar on its nature, culture, climate and fertility of the area on a European gaze and fashion. The net result of this engagement was the conversion or the transformation of Malabar into a European model of forests. For the sway over the forest, they introduced forest Acts and Laws in India. These acts and laws together with the technology-enabled the British to successfully transform the motive of ecological imperialism to an accomplished fact, transforming pristine forested landscapes to tracts for commercial exploitation through the convenient rubrics of scientific forestry. They converted the forests and the wild space into resources and products. Trees become timbers and forests became the resources-the centre of resources, using, looting and possessing them as a site of power and an agent of power. The reforms in the field of administration brought disastrous ecological consequences for the forests and their management and the forest dwellers too. With the setting up of the departments

dealing with the forests, the colonizer had been nurturing the idea of extracting timber and other sources from Malabar. The European engagement with nature in Malabar brought a Paradigm shift in the mode of the use of resources in the historical evolution of colonialism and imperialism in Malabar. The Malabar forest became a focal point of British colonialism and its policies in India and the global expansion also. Departmental systems found their way into the forest administration with the establishment of spheres of authority in the structure. The colonial law and technology found its images in the Malabar area.

The European survey reports for example the reports of the Ward and Conner, annual administrative reports of the forest department, reports of the Collector and other official records clearly indicate the transformation of the landscapes of Malabar into the colonial mode of life and aspirations. All these brought a new light on the use and strength of the resources of Malabar. They started exploring the unknown areas into known usable resources and its market values and significance of commercialization. From this point of time, the focal points were changed and the wealth of Malabar was reconfigured. Technology became a tool in the expansion of the imperial agenda in many ways. Britain became an undisputed champion of emerging world order in the form of a unified global market economy at the expense of India. The introduction of the new technology resulted in the severe deforestation in Malabar. The beginning of the Saw Mills was the best example of the metamorphism of the trees into furniture. It also exposes the nexus between the so -called development and the timber agents. Upon undertaking an environmental audit, it was clear that the area lost virgin forests in the once inaccessible areas. They extracted all the forest resources in many ways with the new reforms and forest management including the forest dwellers and their rights.

British colonialism led to a peculiar state of ecological imperialism in Malabar in which the forest wealth of the colony was brought under the absolute

sway of the colonizer through a series of administrative reforms and enactments. They could realize that the control over forests and its utilization as a decisive factor in maintaining their hold over Malabar for economic, political and military reasons. Thus the forest department became a brainchild of imperial ambitions and it functioned as an agent for securing the imperial purposes at different stages and levels throughout the colonial period. Forest resources including the tribes were exploited at different stages and thus it became an ecological watershed. The British monopolized the forest wealth as an exigency of the colonial administration. Colonial policies and clear cut forest laws were introduced and imposed in Malabar through a thorough study and understanding of the region. Law was a coercive factor and British strategy for maintaining sovereignty on forests and forest people. Thus the colonial forest laws found their way into the socio-ecological and historical consequences. The administrative reforms carried out in the management of forests and policies enacted for bringing the sylvan resources under state control were carried out under the direct supervision and control of the imperial government. Colonial forest laws and policies with hierarchically structured bureaucracy transformed the entire nature and structure. They introduced a series of acts, policies and amendments regarding the forest and forest management in Malabar. The legislations were also in the same line. All these were intended for the uninterrupted exploitation of the resources and its control. The proclamation of the Madras Forest Act, its clauses, provisions and its amendments in the later years was the best example and notable colonial exercise of power. The formation and transformation of reserved forests or the classification of the forests and turning of the life of the forest dwellers are the best example of the transformation of life in Malabar during the colonial and post -colonial periods. The European or the colonial idea of conservation and reservation was to safeguard the imperial interest in India and not for the betterment of the tribal folk. They cleverly avoided the hurdles and disgust of the natives by convincing them that this was for the benefit of the natives. The forest

department played an important and integral role in this regard. The department absorbed the tribals into its policies and programs as empowering them as forest watchers and guards. Thus these poor tribal people and their right to live in the forest became a part of their so called forest agendas unknowingly. The implementation and practice of scientific forestry and the newly created bureaucrats in the form of timber advisor officer in the Railways, the forest utilization branch and the forest utilization officers and so on functioned according to the utilitarian aspirations of colonialism. In many ways, the colonial rulers overruled the objection and opposition of the natives and tribals of the area.

The consolidation of the capitalist ideology in the second half of the nineteenth century and early decades of the twentieth century had a direct impact in Malabar. To conquer, to exploit and to monopolize were the agendas of this philosophy. The capitalistic ideology and its application in Malabar were another impact and tool of transformation of the life and culture of Malabar. The notable one for that was that, it brought each and every region under its network. The coming of wide network of roads and other transportation facilities was the aftermath of this revolutionary change. The forest plantations, working plans, working schemes and other activities in the department were the important key factors that led to the commercialization of forest and forest landscape in Malabar. The Timber contractors and Timber merchants and the official authorities had played a significant role in the process and proliferation of the forests in the commercial line. The excessive timber extraction was visible during this period and its impact in the coming years was unprecedented. The irreparable and irrevocable loss of the forest was the net result. The scientific forest management in the name of conservation of the forest brought much impact in the scientific forestry and forestry practices. The commercialization of the forest resources under the pretext of forest conservation and management escalated to a new level. The entire structure of the society and

forest oriented life was undergoing drastic changes. The authority itself becomes an ardent agent of the exploitation or the forest department becomes a symbol of a ruthless exploiter of the resources.

The timber merchants of Britain preferred timber from India especially Malabar. The industrial revolution in England had a profound impact on India as a colony. The high demand for timber from England had been devastating upon the forests of Malabar. The role of Railway and the exploitation of the forest in India for the establishment of railway were very notable in this respect. It was the railway and shipbuilding and the imperial requirements for navy and other military objectives rearranged the forest life and culture in Malabar. The best evidence for this was the number of companies worked in India during this period. The bureaucratic network of the colonial rule, especially the forest department was catering to the imperial needs. The exploration of forest resources and the demarcation of such highly valued forests into reserves was the consolidation of resources and power on it. As a result, the rights and privileges of the rural and tribal community were curtailed.

When the demands of civilization begin to impinge on the forest, the perceptions of the forest and its people also change. In ancient days man lived in harmony with nature with a spiritualistic outlook; an eco- friendly system of way of life. They worshipped nature in the form of Trees and Animals and considered the jungle as the abodes of gods. Tribals living in the forest had posed no threat to the forest's wealth. They were lived in accordance with the laws of nature and survival. The advent of British colonialism and their consolidation of power brought a radical and irreparable shift in the human-nature relationship in Malabar. The far -reaching result was that the monopolization of the entire forest wealth. This was under the title of the forest administrative reforms and the legalities and passing of new laws. They applied the colonial ideology of exploitation in the name of new measures for reforms in Malabar. Additional revenue generated from these reforms. The British

controlled the emerging market economy with this capital. And resulted the development of capital, technology and imperialist institutions. The tribals engaged only in the collection of minor forest products and in the coming years they were absorbed as trackers and coolies in the forest department. Malabar was transformed into a timber supplying agent of the imperial government for their railway extension programs. The landmark in the history of Indian forestry was the building of the railway network. The establishment of the forest department itself was for this destruction of forests. With this the 'spaces' are transformed into 'places', it was in a sense was the politics of timber. Many forests were cleared for starting plantations. The conversion of the forested areas of Malabar and the transformation of the landscapes containing a rich variety of local species of flora and fauna into monoculture plantations is a fitting example of ecological imperialism. This was controlled by power, capital and technology. Technology as a force had altered dramatically the relationship of human populations with those of other species and with supporting ecosystems. Here we can see the process of techno ecological imperialism wherein the sylvan resources of Malabar were exploited by the colonizer within the shortest span of time. The British colonized India politically, economically, socially, culturally and ecologically- ecological imperialism. Besides man nature, specifically, the forest was the prime victim of this colonization. The development of the plantation industry brought plant imperialism.

The excessive exploitation of the teak and other valuable timber from Malabar caused the timber shortage and other problems to the colonizer. So the authority was forced to take other possible ways to make up this shortage. Thus there started a new practice of cultivation in Malabar, the opening of the monoculture plantations. With the help of the survey department and reports they thoroughly studied the nature of the land and its physical conditions. New plant species were planted in a good condition area or an area in which these new species

were conducive. After much study and experiments and experiences, they converted the land into the teak and other plantations in the second half of the nineteenth century. The introduction of the plantation enterprises in Malabar impacted massive ecological transformation in the district. One such impact was in the form of the elimination of the natural ecological world and the destruction of natural forests. The market economic factors become key factors in reconfiguring the forest and forest oriented life. As teak become a prime attraction in global markets and demands the British authority started the policies according to the needs of the imperial aspirations. The breakup of the traditional practices and the coming of cash crops was an important result. Commercial crops and cultivation, and practice became a common thing from then onwards. The cash crop Plantations like coffee, tea and other crops were opened and rapidly got extended in large areas. Large-scale investments were started in the localities in the form of plantations. Big timber magnets started investments and companies like Messrs Pary &co. either purchased the land or occupied land on lease from the local chieftains or *jennies* for the tea plantation.

The colonial masters extensively used the Malabar forests for their vested interests. To them, it was the production centre of highly valuable commercial timber. The shortage of the Oak in England compelled them to seek an alternative. Thus they started the conservation and artificial regeneration of the teak and such trees and finally the timber plantations. The British system of the clearing of the natural forests resulted the depletion of the natural forests. To balance this depletion they started the monoculture plantations and in a way, it was a systematic exploitation of the resources in a most effective way. With this, they ensured the regular and adequate supply of timber and other resources. Commercial forestry was a great success in Malabar during this time with timber plantations. They regularly changed the mode of extraction of resources and their intervention in the area, in the

form of colonial rules and regulations asserted the power and possession of the forest and forest live in Malabar. The passing of the forest acts restructured the forest administration and the use of the resources. From 1865 onwards the British started the control and transforming the forest landscapes in India. All these factors powered them to assert the state monopoly over the forests and forest dwellers. Thereafter they changed the forest management and the related trade.

The structural changes of the forest management and administration were in the form of bureaucratic control. A strong and solid bureaucratic system of the colonial period acted as a mechanism with respect to all fields of forest administration and management, which safeguarded the colonial interest and practice to a great extent. The beginning of the Forest schools, forest utilization branches, forest departments, forest roads and forest exhibitions became the site of power and authority. The forest exhibitions like 'Paris exhibitions' were a notable one in this regard. The law and administrative control of the forest department became very visible in the life of the tribals of Malabar. They even banned the cutting of the grass from the forest; tribes used the grass like *Manipullu* for making mats and baskets. It was an integral part of their daily life. Thus they re-configured the forest landscape and tamed them to live with it. This was a more crucial stage of the transformation of the life of the people and the beginning of the plantations concretized this configuration at a deeper level. The planters and plantation companies acted accordingly with all the support of the department. They want to meet the demands of the industrial, imperial and trading purposes of the colonial world in the global scenario. They extensively used and exploited the resources of Malabar especially the timber for western colonial markets resulted in the disappearance of the Malabar forests or deforestation. The colonizer imposed timber imperialism in Malabar with this extensive exploitation and generated more and more revenue from the forests. Commercial forestry heralded this transformation

and it became forever since then in the Indian context. The trade and fixation of the price were done by the colonizer, the statistical analysis and tables and charts show that how much of the revenue was generated or achieved by them from the forests and its timbers. Thus it clearly brought timber imperialism to Malabar.

The industrial capitalist economy of the British was the real force and motivation for the beginning of plantations in Malabar. They prepared and converted the forest lands to plantations. By giving hopes to the native people, they cleverly cleared the large tracks of the forested areas and hills were also opened for plantations by making roads and transportations facilities. With the chartist movement and the favorable conditions of the capitalist world, large scale investments have happened. The capital intensive and market regulating political economy of the British played an important role in this transformation and transactions. The hills and the surroundings were Europeanized, a European way of life also started percolation in the remote areas of the Malabar with all these plantations. Different types of plants were introduced, invasive plants also, the artificial gardening, beautification, mixing up of the plants, multi- crop practices, etc converted the natural life into automatic life patterns. A different type of natural plant life was converted to monoculture plantations. All these brought a new political ecology in Malabar with the disappearance of the native or local varieties of the species. The tribal people widely used or depended on these species of plants for their medicinal practices and purposes. But with this introduction, they compelled to live with it and eliminated the natural virgin forests, which ultimately lead to a state of plant imperialism in Malabar. The reserve forests and the classification of the forests brought Western notions and practice of the environment and environmental concepts. The westernized environmental system transformed the forests of Malabar and wealth into a western perspective. Thus the trees became timber and *Kadu* became forests. Malabar was transformed into a site of the periphery for

servicing the demands for timber from the core country. If we are looking at Malabar on the World System Theory of Immanuel Wallerstein was clear to explicit that they widely used the forest and forest resources of Malabar on a commercial line and taken over and subordinated the existing and local trade networks for the benefit of the British, timber imperialism. The wild life also became a source of revenue, they tamed the wild life and changed the nature of hunting, turned them into a more productive. Their approach towards the wildlife was in an industrial way and purposes. This is also continued even in the present times as the encroachment and poaching.

The introduction of colonial forestry was irreparably affected the subsistence economy of the hill people. The colonizer started more and more restrictions, and it was their requirement for the commercial exploitation of forests. The result of such restrictions was the restriction of the tribes in the access to the forests. They controlled the movement of the tribes and even the cattle also. The introduction and imposition of the Grazing Act totally transformed the life and culture of the tribes of Malabar in many ways. The restrictions on grazing, lopping, grass cutting, etc were the best examples for such impositions. These actions of the colonizer affected different sections of the society besides the tribes. The impacts of these measures were more profound. These interventions also caused ecological changes also; long term consequences can be seen in the society, economy and culture of the area. In short, the capitalist system and European colonization transformed the ecology of Malabar. The remarkable point in this regard was that, colonial rule totally transformed the traditional socio-economic and political systems of the Malabar. The increased demand for timber and fuelwood intensified the process of forest exploitation in the nineteenth century. They exploited the forests of Malabar extensively and commercial activities were promoted. This large scale commercialization decisively regulated the rights of the people in the forests in

many ways and immensely affected all walks of life. They completely utilized the opportunities or possibilities for generating large revenue from forests. It was the consolidation of the sovereign rights over the forest and its management by the government. They claimed and implemented it in many ways. The construction of roads and bridges made possible of the penetration into the forests and wealth even in the remote areas and it became the legacies and marks of the colonial exploitation forever in the history of the human transformation. To the colonizers, the scientific forestry was a medium to unfold the management and increase of productivity in the forests. The introduction and implementation of the forest Acts and policies in the latter half of the nineteenth century result a shift in the traditional attitudes and it was the exclusion of people from the forests. The most important shift in this regard was that the empowerment of the state to declare any of the forests as a reserve and determine the rights and privileges of the people who were living in the forest. In a way, it was the redefinition, curtailment, and denial of the rights of forest dwellers and the use of the forest by them. All these created many hardships to the tribal life and the post-colonial period also continues such engagements in their life. The British wanted to secure their forest interest in the forest in the name of 'protection'. To them the protection was the safeguarding of the vested interest, thus they restricted the unauthorized grazing, felling of trees, cultivation, and forest fire. The fire was a major problem of the colonizers in the forest deal. Because great significance in the fire protection, they incorporated the forest people as watchers, guards and other petty officials in the department. The fire protection had a great concern in the colonial forest conservancy. The grazing act and the redefining of the scientific management of the forests brought a new order in the forested life. The tribal people began to accustom to these or forcefully transformed to live with them.

All the interventions made by colonizer in Malabar were under the guise of bringing progress for the people and its development with the application of

European science and technology. The western perspectives on forest and life with an ideology of capitalism and capitalist technology overturned the entire structure of Malabar. The ideology and perspective on the forest were also changed. The economic systems and activities also transformed with new economic and expansion of new systems, sophisticated technology played a significant role in shaping a new form of life structure in the area. The extraction of resources was also became a fashion accordingly. The application of the theorems of modernity and progress for the people backed up by the new sciences of botany and forestry sciences with economic motives brought new life patterns with a lot of irreversible loss. This interface of colonialism and colonial apparatus transformed the life- world rationality of the people of Malabar especially the tribes. In the beginning, the company and later by the British government directly subjugated, tamed, and disciplined the tribal community. They were also subjugated mentally and politically and created or adapted them into a new colonial politico-economic structure dominated by the colonial policies and applications. The people and the resources of Malabar started to live or shaped them into a tune of or with politico – economic priorities and privileges of the British colonial empire. Thus Malabar was or became an integral part or geo zone of or for escalating the empire in the heights of global markets and cementing the operations of the Empire in the world.

Glossary

Abba	- Festival (god) of kattunaikkar
Aluroopam	- God of Aranadan
Annas	- A currency unit used in British India, equal to 1/16 of a rupee
Apothecary	- Medical officials
Ayani	- <i>Artocarpus hirsutus</i>
Blackwood	- <i>Dalbergia latifolia</i>
Chama	- Millet
Cheeni	- <i>Tetrameles nudiflora</i>
Chemmem	- Residing place of Aranadan tribes
Chenmakaran	- Chief of Aranadan
Cherakathi	- A special type of knife
Cutchery	- Office
Daivapura	- Place of god
Ebony	- <i>Diospyros assimilis</i>
Ghadika	- Magical ritual perform of the adiya community
Illams	- Settlements of Mala Muthans and paniyas
Inamdar	- The person who received in grant or as gift the lands for the extraordinary service rendered to the ruler
Iravu muthappan	- Moon god
Irul	- <i>Xylia xylocarpa</i>
Janamakkaran	- Chief of Mala muthans
Janmakar	- Proprietor
Janmakaran	- Chief of Cholanaikkans
Janmam	- Hereditary proprietary right
Janmi	- Land lord
Kadamantaro	- Plant for bee stings
Kambagom	- <i>Hopea parviflora</i>
Kambala	- Harvesting festival
Karadaivam	- Deity of Kurumbas
Karimaruth	- <i>Terminalia tomenosa</i>

Karimpoya	-	Name of a river (Black river)
Katti chatty	-	Name of a tax
Kattu Baghavathi	-	God of forest
Koonthali,	}	- Important agricultural tools
Kothu,		
Perakokka,		
Pakka,		
Raggi kathi		
Kooth	-	Dance form
Kovilakam	-	House of ruler /jenmi
Kuduma	-	Hair locks
Kullums	-	Farm land
Kumri	-	Shifting cultivation
Kundal	-	Bonus to the bonded labor.
Kuttan	-	Name of the chief of paniyas
Kuttikanam	-	Seignorage fee
Mahagony	-	<i>Swietenia macrophylla</i>
Malachi Daivam	-	Hill Goddess
Maladaivam	-	Deity of cholanaikkans
Malakari	-	Deity of Kurichiyas
Manipullu	-	One kind of grass in Wynad
Mappila	-	Islam community
Mariyamma	-	God of Rains
Maruth	-	<i>Randia dumetorum</i>
Melvakk	-	Headman of Muthuvan
Mooppan	-	Chief of Kurumar
Mooppan	-	Headman of Iralalan
Morad	-	Several numbers of Illams
Mulamkaranam	-	A document prepared in bamboo in connection with bonded labor.
Mundakettuka	-	A system existed in the Eravaller community in connection with the remarriage
Nathandarukkal	-	Mavilan's harvesting of the punam cultivation

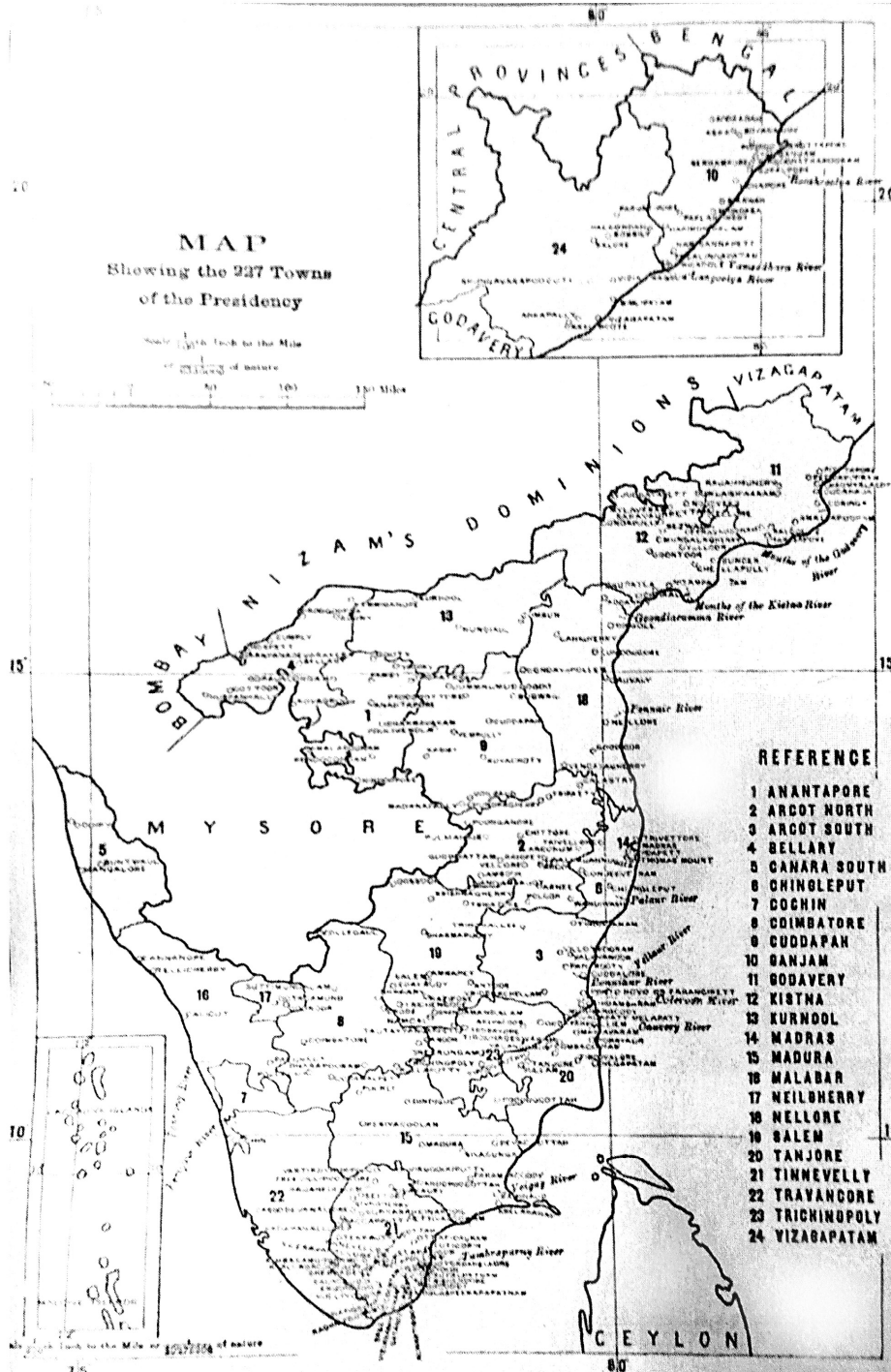
Odakolli Daivam	-	God of Health and remover of illness
Pakal muthappan	-	Sun god
Palakan,		
Keerikishangu,		
Garudakkodi	-	Plants for snake poison treatments.
Palthondi,	}	- Name of the paddy items cultivated by the Kurichiyas
Kottathondi,		
Marathondi,		
Chomala,		
Kootiveliyan,		
Maranellu,		
Gandakasala,		
Jeerakasala		
Panam	-	A denomination of money used in earlier times
Panchakkad and Kothukadu	-	Kurumbas' Punam cultivation lands
Parakol, Kooran Kol	-	Digging sticks of Kadar
Pathirikurichiyans	-	Kurichians converted to Christianity.
Patis	-	Line houses
Pine	-	<i>Pinus radiate</i>
Pittan	-	Headman of Kurichia
Plathi	-	Physician in the Urali community
Pon poya	-	Name of a river (Golden River)
Ponnarippu	-	Tax on washing for Gold
Poon	-	<i>Sterculia foetida</i>
Pulayar	-	An out caste people
Punam	-	Settled agriculture or shifting cultivation
Puttah	-	Right to cultivation
Red Cedar	-	<i>Cedrela toona</i>
Sandal wood	-	<i>Santalum album</i>
Tatties	-	Mats
Teak	-	<i>Tectona grandis</i>
Thalapattam, Nilpu panam	-	Payment to the leased laborers

Thampuratti	- Mother Deity
Thera and Koll	- Dance of Kurichiya
Thirumulpad	- Name of the local ruler
Tiyya	- Name of a caste in Malabar
Vallipani, Adimapani, Kundalpani	- Practice of bonded labour among the tribes
Vanijin and Kolkaran	- Assistants of Mooppan
Vembu kanda	- A sort of turmeric
Venga	- <i>Ptrocarpus marsupium</i>
Venteak	- <i>Largerstromia lanceolate</i>
Vettakkorumakan	- God (Siva)
Visha kallu	- A stone made with the essence of 101 herbal medicines.
White Cedar	- <i>Dyoxylum malabaricum</i>
Zamindar	- Landlord

APPENDICES

Appendix I

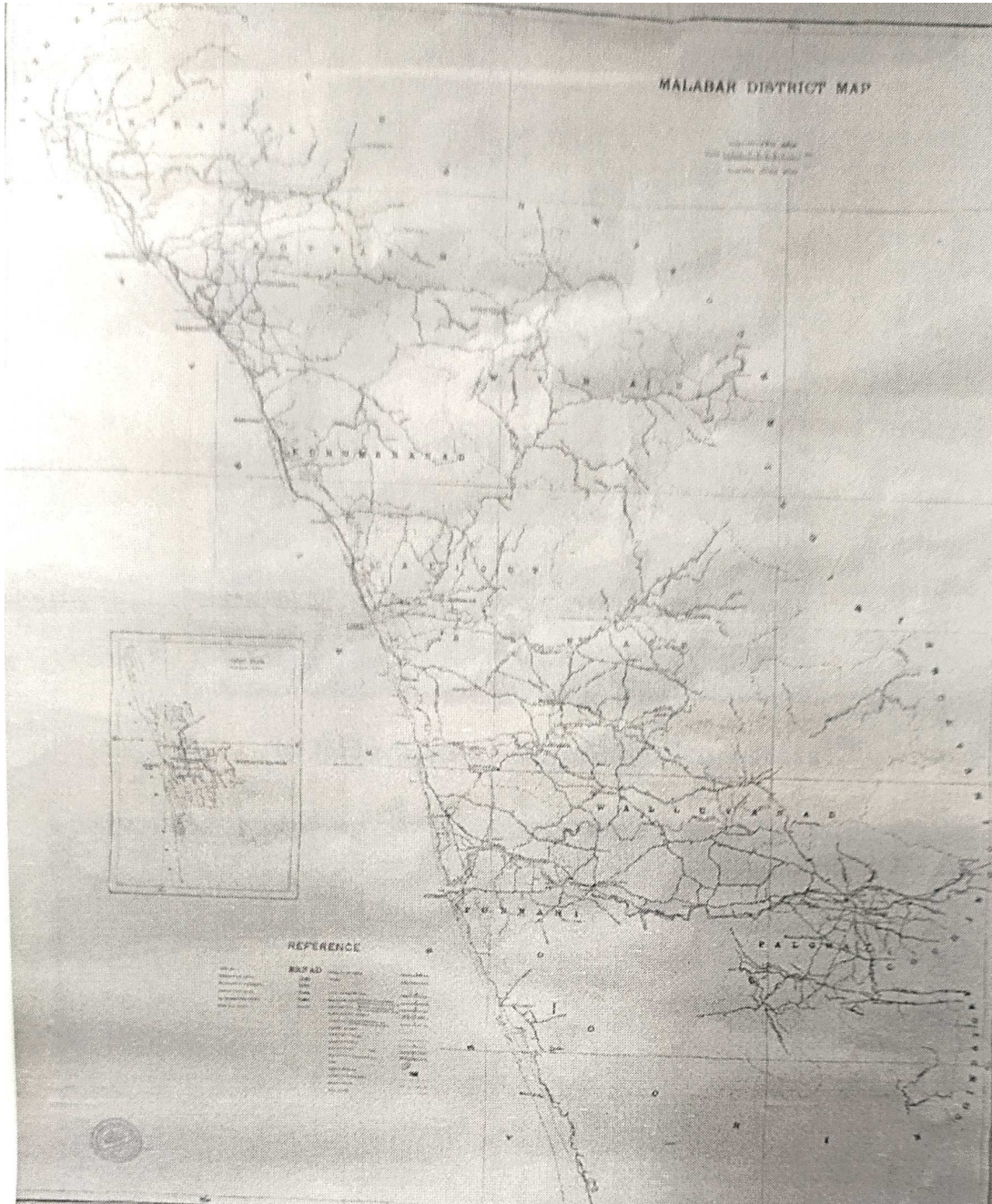
Map of the Madras Presidency in 1885



Source: Regional Archives, Kozhikode

Appendix II

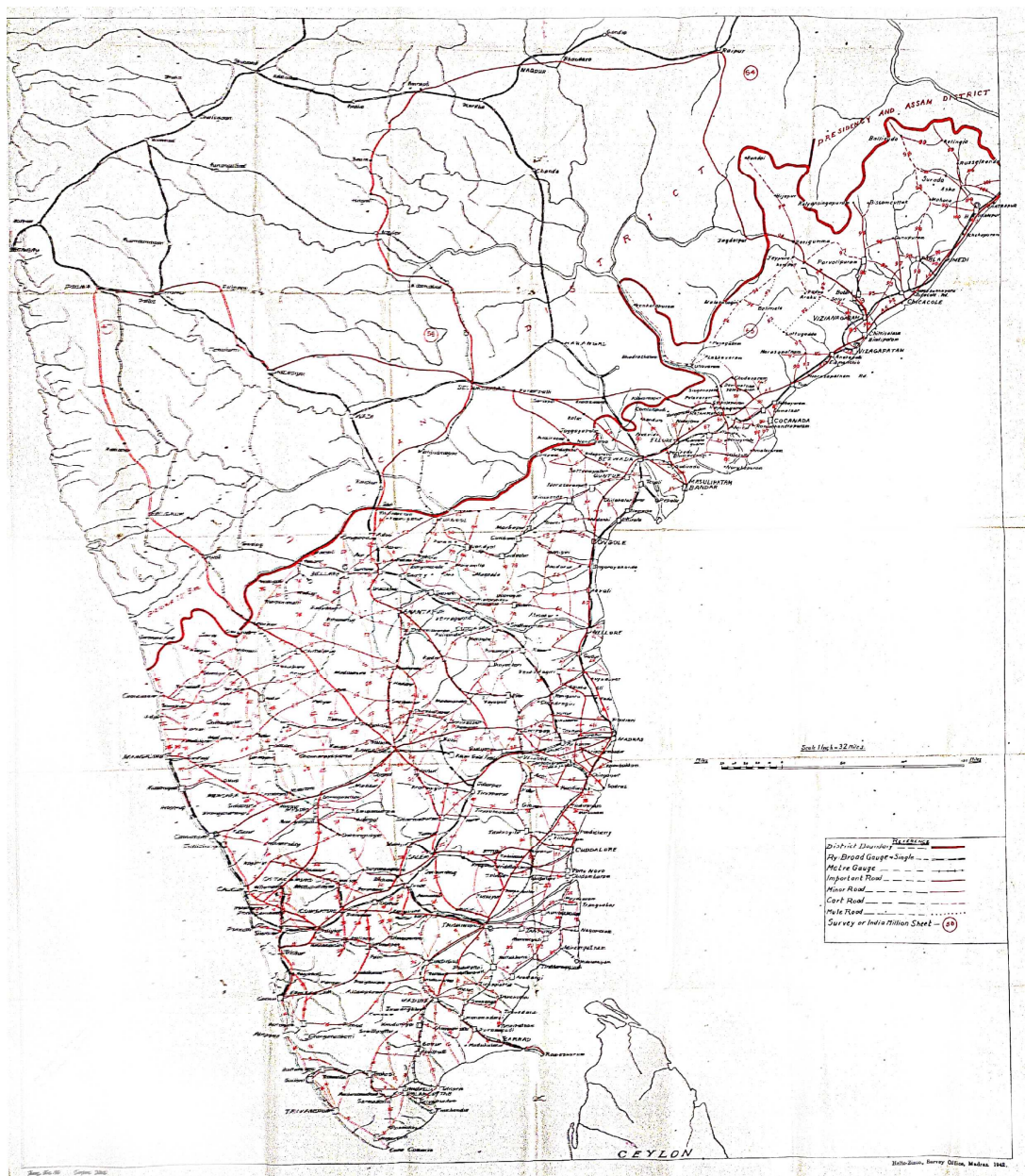
Map of Malabar



Source: Regional Archives, Kozhikode

Appendix III

Madras Presidency in 1940



Source: Survey Office, Madras.

Appendix IV

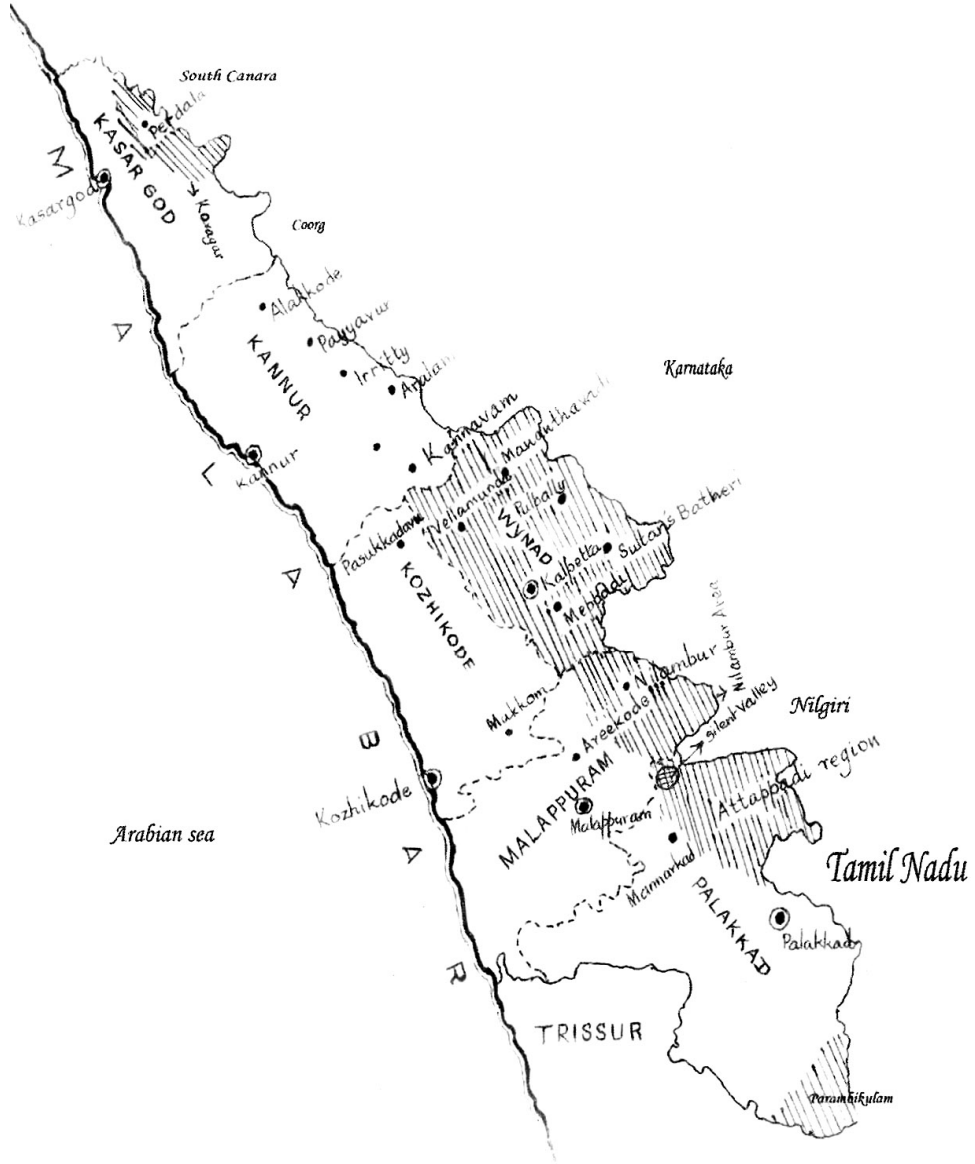
Nilambur Valley Working Plan



Source: Regional Archives, Kozhikode

Appendix V

Tribal Areas of Malabar



Appendix VI

Correspondence Files (Source: Regional Archives, Kozhikode)

Collector in
Madras

Sir

The Board of Directors have lately had under their consideration the sum paid in the several Collectories as rewards for destroying Wild animals, have decided in respect to lay down the following rules in the subject-

The maximum of rewards shall hereafter be as follows-	
For an Elephant	20 70
For a Royal Tiger	10 35
For a Cheela	5 17 1/2
For a Pease	2 10

In determining the same to be paid within three years of the date

... the said the said duties have been paid, he is hereby authorized and directed to pay the same and Plant specified in each Certificate free from all other charges.

XII Any person who may be discovered purchasing any such Plant from any of the Company's Agents or from any other person who purports to be such will be liable to be prosecuted Offenders of the Public Property and punished accordingly.

XIII Nothing contained in the Regulation shall be construed as vesting in the Government of Bombay or any of its officers any Control or interference with the Import Trade in such or with

... will be paid by the Government the size and quality of the animal ... the human lives, the danger ... and the personal courage displayed by the parties concerned in its destruction.

... and consider themselves authorized to grant any reward unless (with the exception of the case of an elephant being killed) the entire skin and the head of the animal be produced, accompanied by a written document from a Shikdar and a certificate signed by the head man of the village in the vicinity of which the animal was destroyed, stating the circumstances attending the event.

Yours
Sir

Your Most Obedient Servant
J. B. ...

For the Collector
Madras
Capt. ...

... such as the said ... the said ... are to remain subject to the sole and exclusive authority of the Government of Fort St. George.

XIV The Conservators, their assistants and all other Officers of any description to whom the said Regulations have been declared to be liable to be sued in the Court of Admiralty by Merchants or others for any breach of Contract or other engagement entered into between them, or on occasion of any neglect or omission from them, or for any other breach of this or any other Regulations for the Conservation of the Forests or for the

J. B. ...

To The Right Honorable Hugh Cairns
 Governor in Council

Honorable Sir

We have the honor to submit for the consideration of Government, a copy of a correspondence between the Public Agent for the construction of Gun Carriages, and the Collector in Malabar relative to some interruptions in falling Timber within the Gornela Guddah Little Wynnah.

Referring to the enclosure transmitted with the Chief Secretary's letter of the 3rd July 1872, it appears that it has not been customary for those who cut timber to pay any duty or rent for permission to cut it, except as well seen from the public agent's letter forwarded

...shall be liable to pay...
 ...whom such timber shall be used...
 to produce such licence, the same shall be forfeited for the benefit of the Honorable Company, and any person giving information of any such cutting down of timber without licence or any attempt to transport the same to the sea coast or export it from thence without the said licence shall on conviction of such offender or offenders before the District Judge of the District be entitled to and shall be paid one moiety of the value of such timber so cut down and transported

To the Collector in Malabar
 Sir

With reference to your letter of the 27th March last I am directed by the President and Members of the Board of Revenue to forward to you the accompanying correspondence with the Government upon the subject of the precautions suggested by you for the security of the Salt and Tobacco Monopolies in your District, and which were referred to the Honorable Government.

Yours
 Sir

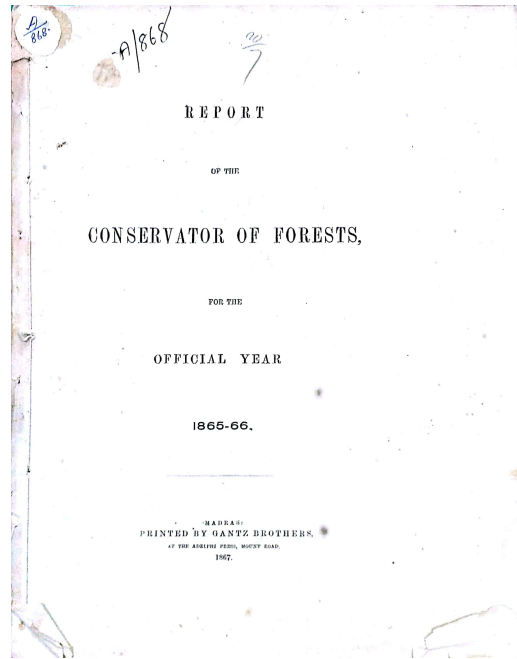
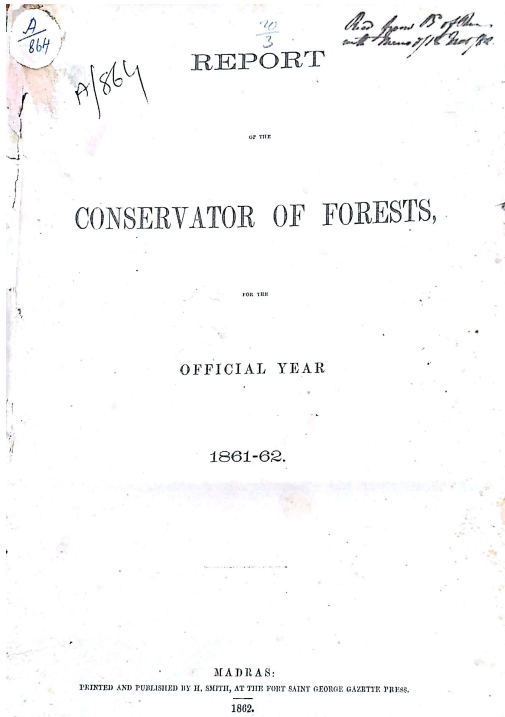
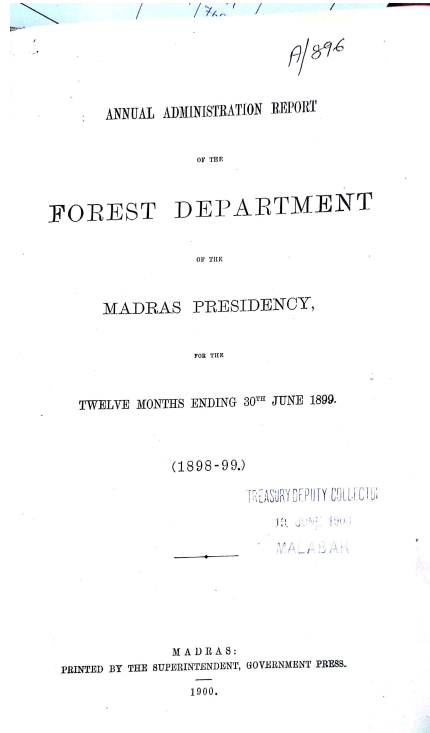
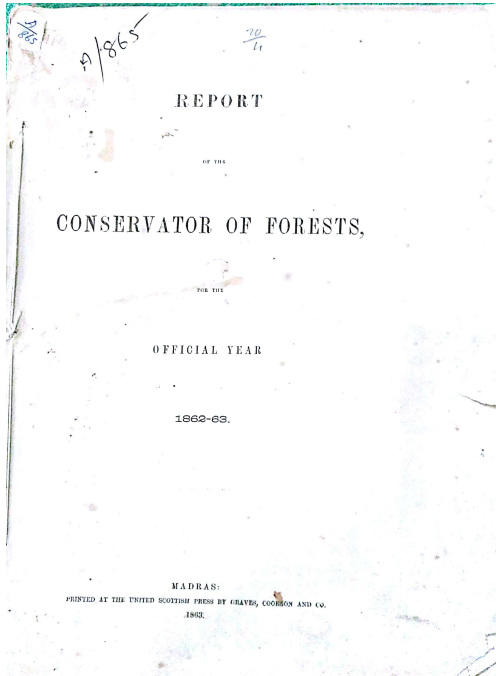
Your most Obedient Servant
 Secretary

Fort George
 17th July 1875

...the payment of...
 Land duty was declared receivable...
 in part payment. This alteration...
 inadvertently destroyed the specific...
 bond of 3 per cent on the export...
 of grain, and made it liable to...
 8 per cent because not being liable...
 to the payment of land duty...
 no certificate in part payment...
 could be produced. The export duty...
 of three per cent stated in section...
 IV of the same Regulation refers to...
 the export duty to which grain...
 stood liable under the first draft...
 of this Regulation.

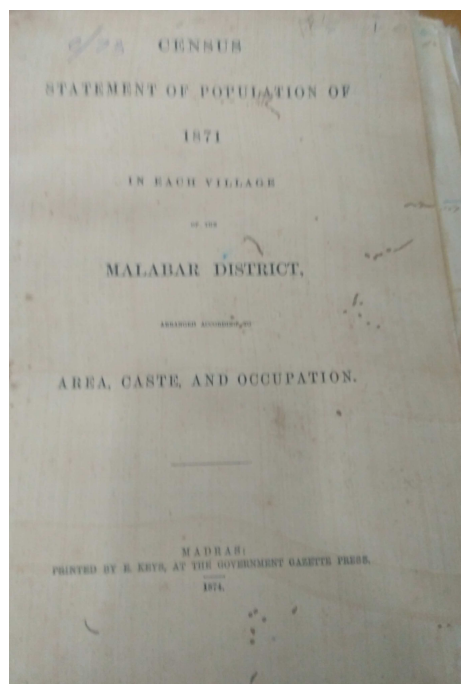
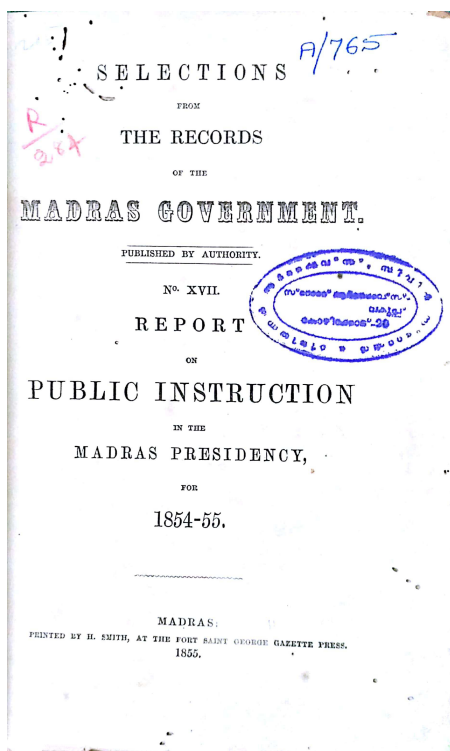
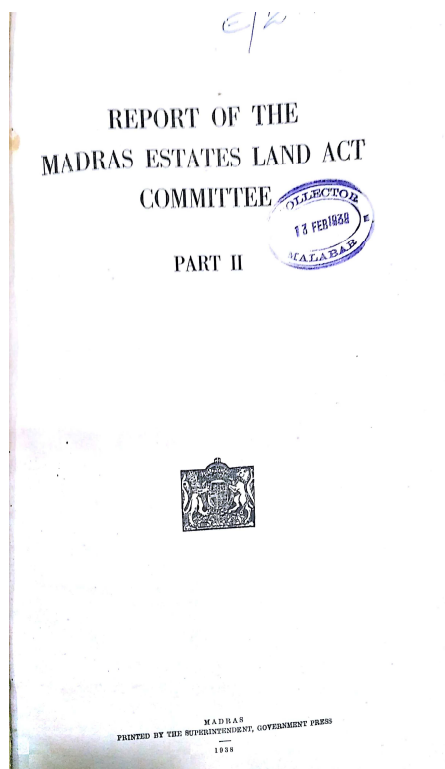
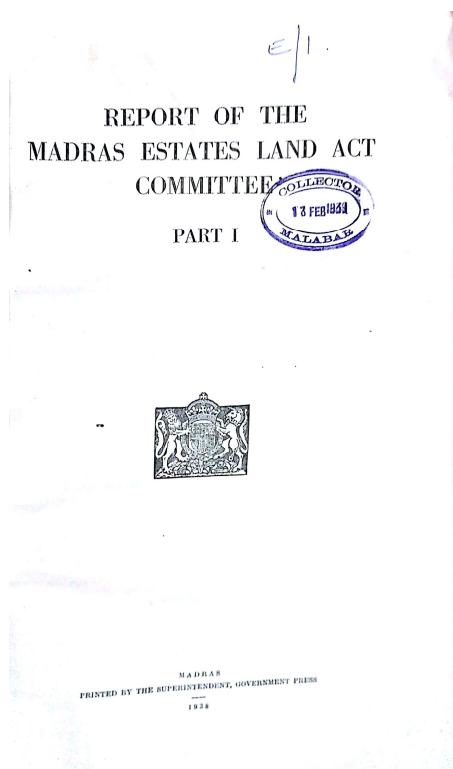
Appendix VII

Conservator Reports (Source: Regional Archives, Kozhikode)



Appendix VIII

Reports (Source: Regional Archives, Kozhikode)



Statement on the Consumption of Forests for the Timbered Materials required for Building
a Bridge at Berde Calce in Rajasthan Talook.

In Numbers	Description	Dimension of each			Particulars	Total			
		Length	Breadth	Thick		Vol	Superficial	Weight	
		ft	in	in		cu ft	sq ft	lb	
6 pieces	Beams	19	7	3 1/2	houghton	38	3 1/2	232	3
15 "	"	3	6	3	"	4	2	54	"
12 "	"	1 1/2	6	3	"	2	1	37	"
16 "	" or Planks	3	16	1	"	4	"	64	"
4 "	"	5 1/2	7	3 1/2	"	11	1 1/2	67	1 1/2
2 "	"	5 1/2	6	4	"	6	2	13	"
2 "	"	2 1/2	6	4	"	5	"	10	"
8 "	"	2	6	6	"	6	2	48	"
40 "	"	2	7	3	"	3	2	18	"
360 "	for Building	2	10	1/2	"	"	2	120	"
3 "	Beams	11	7	4	"	25	2 2	75	"
6 "	"	4	10	3	"	10	2 2	60	"
2 "	"	19	4	2	"	12	2 2	25	1
2 "	"	13	4	2	"	9	"	18	"
Total cu ft						956			1 7/8
@ 31 Cents 1/2 per cu ft						286			3 7/8
Contract of 14. April 1818 -									

Statement on the Consumption of Forests for the Timbered Materials required for Constructing
a Bridge in Mysore.

In Numbers	Description	Dimension of each			Particulars	Total			
		Length	Breadth	Thick		Vol	Superficial	Weight	
		ft	in	in		cu ft	sq ft	lb	
1 piece	Center beam	6 1/2	9	7	Center beam	34	9	34	2
2 - 1 1/2	" ditto	6	9	7	"	31	2	62	"
4 - 1 1/2	" ditto	8 1/2	11 1/2	7	"	65	3 7	200	"
18 - 1 1/2	" ditto	6 1/2	8	7	"	14	2	54	"
30 - 1 1/2	Planks	8 1/2	11	2	"	11	1 2	17	2 2
56 pieces						17		56	
Total cu ft						107			3
@ 30 Cents 1/2 per cu ft						321			3 3/8
Contract of 14. May 1818 -									

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