

# **Ecology and Society in Manipur during Colonial Period: A Study of Forest and Water Resource Management**

## **Introduction**

This work *Ecology and Society in Manipur during Colonial Period: A Study of Forest and Water Resource Management* concerns the ecology and society in Manipur particularly in forest and water resources management during the colonial period. It discusses into the interface between ecology and society of colonial period in Manipur. The study examines the socio-economic activities of the people of Manipur so also the interaction between their culture and nature, which influenced to a great extent by forest and water resources. In Manipur, there was no official system of scientific forestry (prior to the colonial intervention), however, the study looks into how forest was managed under the traditional method of management. Further, the forestation and subsequent use of forestland during the colonial period and their mode of exploitation of forest resources remained the matter of this paper. How dams, lakes and the ditches were maintained and registered, also the steps taken to improve under the maharaja's rule (prior to the colonial period) as well as the objectives of the colonial interventions or the changing forms on water resource management in Manipur. Forests remain part of a tribal social life and how the whole community took part to protect and manages also the reflection of *jhum* in their various ritual practices and physical restraints and harmful to the environment and the notion by the British colonial state are discussed. This study examines the objectives of colonial intervention on Manipur forests. On the other hand, how the local people responded (movement) to the various changes brought into their forest and water resource management by the colonial state remained.

## **Statement of the Problem**

Nature is exploited by human being itself. Today there is a growing clash between economic and technological development on one side and the quality of the environment on the other. Despite the fact that, trees cannot be substituted by anything else to balanced our environment. Geographically, land of Manipur is divided into hills and valley respectively. As of the hill region, since time immemorial and hitherto, the practice of *jhum* cultivation or their (main sources of their income) culture of depending on nature, also a factors to the environment at play. In Manipur, king Garibniwaj (1709-1748), concerning the important of forest and water, with the

separate department called *Urungba Loishang* with the officers *Urungpurel Achouba Umang-loi Hanjaba, Umangloi* and the *Khoirungba* also the department called *Pukhranba* and *Lakpas* to manage the water in Manipur. However, all these programmes and policies earlier to the British advent were no more mentioned during the colonial period (though the system may not of scientific the forest or talk about of environmental conservation). Forest and water are the most chief living resources of the human being or living being. The most important roles which fewer are noticeable to the common man is the ecological role of forests, that influence the wind, temperature, humidity, soil and water. Thus, the entire scheme of environmental preservation is essentially duty-based to every person. That the new study of history (environmental) came into born in south-east in particular, globally speaking, environmental history may be said to have come of age in recent year, in South Asia it remain by and large in its adolescent. The region (Manipur) has yet developed a firm intellectual base, a solid scholarly foundation.

### **Objectives of the Study**

The objectives of the proposed study are:

- To examine the historical relationship of man and nature in Manipur
- To study the history of forest management in Manipur
- To study the long practices of jhum and its impacts
- To study the Colonial Forest Law and People's Response
- To study the history of water resource managements in Manipur

### **Review of Literature**

To form the theoretical background and understand of the proposed theme, some Secondary sources of the past studies on environmental history in and around the world and in Manipur are selected and reviewed in the following:

**David Hardiman**, exert the impacts of construction of large dams and small dams in India in his works *Small-dam Systems of the Sahyadris*, that one of the criticism made today of large dam project in India, that irrigation needs are served better and more equitably by a large number of small dams rather than by a few big dam. Small dams, it is argued, change the environment less drastically and encourage more suitable and environmentally friendly forms of agriculture.

**Thomas R. Detwyler** points out in his work *Man's Impact on Environment* that man environment research has been neglected since 1930s, when the flaws of

“environment determination” became widely recognized. For the preceding several decades the occurrence of many of man’s cultural characteristics were largely attributed to the nature of the environment where they were found, often without much evidence. This book squarely focuses on answers to the question “what is man doing to environment?”-revealing the wide spectrum of environmental changes brought by man.

### **Indian Studies**

Ecological analysis has been further focused by classical and pioneering Indian social scientists:

**Ramachandra Guha** in his works *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya* raised the important issue of whether the rule marks an important watershed in the history of environmental history of the subcontinent. He proved in no uncertain term how the British by virtue of formulating a forest policy, which was detrimental to the traditional rights of the people to forest resource use ‘marked a radical break in the history in the history of Indian forestry’. Further collaborative work with **Madav Gadgil** (*The Fissured Land: An Ecological History of India*, OUP, New Delhi, 1992) firmly laid the foundation of environmental history in South Asia. Since then not less than a dozen full-length monographs were completed on the history of forest use or not. In 1990s, two important collections of essays came out namely David Arnold & Ramachandra Guha (eds) *Nature and the Orient: The Environmental History of South and South-East Asia*, New Delhi, 1998 signifying the fact that environmental history has come of age as not only forests but other ecological aspects were also taken up for study. But still the emphasis was more on forest than on any other area.

**Ramakrishnan**, *Shifting Agriculture and Sustainable Development: An Interdisciplinary Study from the North-East India (Vol.10)* in his works discussed the detailed on the wide variety of shifting cultivation practices and their links to specific sociocultural practices and religious beliefs of the Northeast state of India. He also detailed on the jhum recycle and discuss on the village ecosystem functions of traditional societies.

**S. Sangwan**, *Making of the Popular Debate: The Indian Forester and the Emerging Agenda of State Forestry in India, 1875-1904* express grief over the Mughal in

medieval India that the Mughal state derecognized the prescriptive right in forests, yet for the convenience of administrative records forests were considered to be 'waste'. Such 'waste' though in theory a property of the state, remained only a potential property, something that might become 'property' only when appropriated by grant, cleared and cultivated. Under the circumstances people continued to get what they wanted from the forest, to graze their cattle, and to clear jungle growth for cultivation.

**Prof. Sajal Nag** in his work *Pied Pipers in North-East India: Bamboo –flowers, Rat Famine and the Politics of Philanthropy (1881-2007)* (New Delhi: Manohar, 2008) had dealt with the issue of Famine in Mizo Hills due to increase in number of rats which is again related to the amazing ecological phenomenon of bamboo flowering. This book narrates the politics of colonial, evangelical, nationalist and post-colonial state around an environmental catastrophe. It's a path breaking and pioneering effort as it's the first publishes work of its kind in NEI, which deals historically with a natural calamity called famine and how the different stakeholders negotiate it.

**N. Lokendra Singh** in his paper entitled *Management of Manipuri Forest during the First Half of 20<sup>th</sup> Century: Aspects of Ecological History* ((Proceedings of North East India Association [PoNEIHA] 19<sup>th</sup> session, Kohima, 1999) pointed out how as a result of consistent British encroachment over the traditional and customary rights of the tribal people unrest in society not only became widespread but the destruction of forest resources ultimately threatened the entire rich ecological base of the state. In other article *Some Aspects of Management of Naga Hills Forest during the Colonial Rule and Beyond* (PoNEIHA, 21st session, Imphal, 2001) however puts the blame on post-colonial Indian state depletion in Nagaland. Further in his book, *Land Use System in Manipur Hills* blamed the neglected attitude of the colonial authority towards the forests of Manipur as the forest resources of the state were commercially exploited to the maximum advantage of the colonial rulers. Most of the resources were extracted in the form of timbers and teak logs of different sizes.

Therefore, from the related literature review, it contributes to understand the growth and development of environment history, also understand about human interaction with the natural world or the interaction between culture and nature since of the long past and the changes and transformation in the ecosystem of a geographical region or a biosphere over a length of time.

## **Methodology**

This work is based on both primary and secondary sources. For primary data, I have collected various documents from different selected archives in India (which is more availability of related materials) from National Archive of India, Delhi, Manipur State Archive of Imphal, and Assam State Archives of Guwahati). Besides I have visited the fields for personal interview of some knowledgeable persons in the state. Secondary sources consisted of various books and research paper from different libraries of India and Internet sources such as [www.jstore.org](http://www.jstore.org). etc. The study used the different tools (pen/pencil, paper and camera).

## **Summary of the Chapters**

This study is divided into seven chapters.

The summaries of findings of each chapter are given below:

### **Chapter 1. Introduction**

#### *Theoretical Background*

This chapter provides the theoretical background of the study on the history of environment around the world as well as that of Manipur. It introduces the study under various sub-heading of the following: (a) Introduction (b) Geographical Location and Area of Manipur (c) The People (Population) (d) Physical Features and Climate (e) Agriculture (f) Vegetation (g) Rivers systems (h) Forests, followed by Statement of Problem, Methodology (as already states the details in the above methodology section) and the Review of Literature part. Under this section (literature review), the study is categories into two sections. The first section is of those studies other than Indian context and the second part is of all those studies (related to my topic) within Indian context.

### **Chapter 2: Understanding Nature: Forest, Water and Society**

#### *Meaning and Concepts of Environmental History*

The study discussed on various social scientists and the historians of the Annales school, view on Environmental history like Smout, Verstegen, van Zanden, Donald Worster, Thoen Burke Pfister, Brimblecombe, Ponting and others. It also examines the terms and the words “ecology” (like the Ernst Haeckel the German biologist, naturalist, philosopher, physician and professor). It is found that the well long established relationship of forest and water the main agents of our environment (like

importance of forest covers in regulating hydrological flows). It also discussed the changing “term” of history (nineteenth century) with the establishment of environmental study in history discipline. (Rama Chandra Guha, ‘the record of what one age finds worthy in another’. However, contrary to the above definition (with regard to environmental history), it might well be defined as ‘the record of what one age finds unworthy in another’.

### **Water and Political Power**

It also examines the important of water in the ancient period. Around the globe, the scarcity of natural resources caused to compete for land, water, and other important resources certainly triggered to rival and warfare became more frequent in larger scale (Wittfogel's 1957). Taking the advantage, here the king and the elite class designed and prepared to control the farmers by denying water to those who resisted their authority (e.g. the Pharaoh of Egypt).<sup>1</sup>

### **Resource and Ecology**

The ecological wisdom of the hill people is solidly based on "experience" and they depend on this knowledge to fulfill most of their day-to-day needs (their economy). The flowering of bamboo is a sign that famine is close at hand because it would attract rats that would then be detrimental to farming and cultivation. When tender leaves start growing on trees, it is indicative that fishes are multiplying in rivers and seas. Nature endowed the people of Manipur from the distant past with the quality of soil and climate suitable for a wide variety of crops, fruits and vegetables. The traditional economy has essentially remained a forest based economy till today.<sup>2</sup> The study detailed on the agriculture and it's important for the Manipur people (Food, Drinks and Smoking), Household Utility, Forest Medicine and Its Treatment, Clothing & Dying, Hunting and Fishing, Forest, Religion and Musical Instruments, Bamboos and its Management. Many people especially the rural of the hilly areas were found survived solely depend their food items which found from the forest (tubers, fruits, roots, wild edible plants, mushroom, bamboo shoot, creepers, barks of

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<sup>1</sup> At some point of stage of ancient civilization, the pre-industrial agricultural society, many of the state actors were in their turn organised the irrigation for his subjects. When irrigation became more a factors in the larger scale and an elaborate irrigation systems required a leadership, to organise the labor. Therefore, the state actor made water a factor to their subjects, though factor may not be of an ecological concern and population pressure.

<sup>2</sup> Charenamei, Mani, *Forest Resources which is the Zeliangrong Country* (hereafter FRZC), Imphal, Souvenir North–East India Zeliangrong Naga Festival cum Souvenir (SNEIZFS), 1995, p.80.

tree local wine dying clothes, leaves for paan and the tobacco, nuts for food item and for intoxicated, jungle herbs for medicine & flavouring or spices, tobacco juice etc. besides the gourd for water pot, and bamboo cylinder and wooden pot for keeping water and liquor and drinks). Also the people studded with Tirthas (sacred places) such as Nongmaiching, Hiyang-thang, etc. believe that the guardian spirit of is present in these forest suggests the spirit take care and protects the people from sickness, pain and invasion by enemies.

### **Forests and Environment**

Besides of forest and water for drinking, food, etc., the most important thing is of environmental resource (forest and water the regulator of our climate). The impact of ecological imbalances directly affects the eco-system of the environment. The study examines the important of forest and water resources at play, the most important resources that helps the world for maintaining the ecological order. Forest played the most important roles which fewer are visible to the common man of ecological role, that they influence the wind, temperature, humidity, soil and water. Forests influences local and regional climates besides their productive uses viz. supply of energy in the form of wood and timber for construction purposes. Forest and water resources have a profound influence on the economy as well the environment of Manipur. The prime necessities of their life and other of valuable products were derived from forests even the animals having economic and commercial significance depend upon this green gold (forest). British conquest of India in general and Manipur in particular, encourages deforestation and encouraged cutting of tree for timber instead of putting an immediate stop to further devastation.

The culture of depending on forest by the humankind has brought a great changes to the environment. The study found that, the most evil agent of environmental degradation were of economic development and the modern technology (like railways and industries in India) by the Colonial resulted to environment more conducive to the physical and mental well-being of man by escalating level of pollution associated with deterioration of the environment polluting the air that we breathes, the water that we drinks the food that we eats.

## Chapter 3. Forest Management in Manipur during Colonial Period

### Type of Manipur forests

Moist Tropical Forests	Dry Tropical Forests	Montane Sub-tropical Forests	Montane Temperature Forests	Sub-alpine Forests
Tropical wet evergreen forests	Tropical dry deciduous forests	Sub-tropical broad-leaved hill forests	Montane wet temperature forests	Sub-alpine forests
Tropical semi evergreen forests	Tropical thorn forests	Sub-tropical pine forests	Himalayan moist temperature forests	Moist alpine scrub
Tropical moist deciduous forests	Tropical dry evergreen forests	Sub-tropical dry evergreen forests	Himalayan dry temperature forests	Dry alpine scrub

### Early Resource Use Systems

Forestry in India was different to that of any other country.<sup>3</sup> Every kind of climate and every type of vegetation from, the alpine forests of the Himalayas to the tropical evergreen forests of the West Coast, from the desert forests of Sind and the Punjab to the bamboo clad hills which form the eastern most frontier between India and Burma.<sup>4</sup>

### Pre-Colonial Forestry and Environment

The study found that, Manipur prior to the colonial intervention of Manipur (overlooking valley), the forests were not directly controlled nor scientifically managed and conserved the forests produces. However, the forests were managed under the forest department *Urungba Loishang* which consists of a various forest officers with different duties of in-charge.<sup>5</sup>(like to kept records of, the kind and qualities of trees growing in the forest, to keep in-charge of bees, honey and wax, responsible for providing the State with such articles as ivory, tiger's teeth, hides and nails, deer and the like, tortoise and oysters and to select trees for making boats etc.) On the other hand, the hills tribal systems of forest and water management were mostly community managed and with locally available materials and no place for revenue collect on forest and water. The forests provides and made exists a symbiotic relation between man and the forest. The ecological wisdom of the hill people is

<sup>3</sup> National Archive of India (hereafter NAI), *File.No.4, Diary No.41/F*, Manipur State Archive (hereafter MSA), Delhi, 1937, p.1.

<sup>4</sup> NAI, *File.No.4, Diary No.41/F*, Delhi, 1937, p.1.

<sup>5</sup> Singh, N Ibobi, *The Manipur of Administration 1709=1907*(MA 1709-7), S. Manglem Singh Publication, Imphal, 1976, p.117.



solidly based on "experience" and they depend on this knowledge to fulfill most of their day-to-day needs (their economy). It also found that, the indigenous knowledge of hills tribal which is of a blend of locally rooted and exogenous knowledge crafted to suit local situations. Among the hill tribes there is some sense of controlling the damage cause to forests although, no scientific management or scientific forestry that we see in western society that had not taken place. The study examines the ecological wisdom of tribal, therefore found, their understanding to their ecological changes says, the signs and symbols of forest were understanding, what will happens in the natural surroundings e.g. a) the flowering of bamboo is a sign that famine is close at hand because it would attract rats that would then be detrimental to farming and cultivation, b) when tender leaves start growing on trees, it is indicative that fishes are multiplying in rivers and seas.

### **Colonial Forestry and Environment**

#### *(i) Colonial Forestry and Rise of Commercial Forest*

Prior to the British rule, the traditional mode of commercialization of forest resources didn't undergo with the neighboring countries neither had they exploited the forest resources (timber for revenue) nor have the definite forest resource policy (scientific management) during Pre-British Manipur (1891).<sup>6</sup>After the Charter of Indian Forest 1855, for the first time issued by Lord Dalhousie was taken up.<sup>7</sup> The Manipur state forest management under colonial government was begun from 1891-92.<sup>8</sup> Sooner after the colonial intervene the political power in 1891 in Manipur, they were on a track to conserve the state forest resources for the commercial activities.<sup>9</sup> Maxwell the Political Agent of Manipur<sup>10</sup> declared the Manipur forests as "State Forest Reserve" forests in 1895.<sup>11</sup> Various places of the virgin forests of Manipur were made the property of the government and placed under the charge of the Forest Department<sup>12</sup> (Cachar and Burma border forest, Heingang and Kambung forests, Sugnu and Ukhhrul pine forests, Langol forest , Khuga and Heingang forests). Besides, steps

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<sup>6</sup>*The Survey Report on the Distribution of Bamboo Species in Manipur*, Forest Department Government of Manipur, Imphal, 2000, p.11.

<sup>7</sup> Vaidya Archana, *A backgrounder on forest governance and forest management legislations in pre-independence and independent India, leading up to the Forest Rights Act 2006*, Accessed on 15 August 2014 on World Wide Web: <http://infochangeindia.org>.

<sup>8</sup>ARM, MSA, Imphal, 1891-92, p.9.

<sup>9</sup>Manipur State Darbar (hereafter MSD), Manipur State Archive (hereafter MSA), Imphal, 1933, p.116.

<sup>10</sup>ARM, MSA, Imphal, 1891- 92, p.6.

<sup>11</sup>ARM, MSA, Imphal, 1891- 92, p.111.

<sup>12</sup>MSD, MSA, Imphal, 1941, p.60.

were also taken to improve the forests of the state by appointing a various officials to frame the policies for better extraction of tree like (a) Maxwell's Proposal on Manipur Forest<sup>13</sup> (b) Mr. Robowthem's Report and (c) Mr. A.J.W. Milroy's Report.<sup>14</sup>

(ii) *Laws Enacted to Conserve/Protect Forest Resources*

Under the act of 1878, the Indian forests act the forest resources were controlled and exploited by creating a number of State Forest Reserves, which were again leased out to the different contractors.<sup>15</sup>

(iii) *Loss of traditional forest access right of all unoccupied/waste lands*

Further, after negotiations with the Assam government exports of timber more speedy, with revenue sharing (25:75) between the state of Manipur and Cachar Forest Division.<sup>16</sup> The Political Agent of Manipur took a step, to avoid the strained relation between the local people and the timber traders. That two *Lambuses* were installed for effective and peaceful extraction of timbers in the hills areas, with strict instructions, posted in the bordering forests areas.<sup>17</sup>

(iv) *Systems of Selling of Forest Produce (including thatching grass*

The monopoly right to extract timbers from each block was given to different contractors. In return the contractors pay royalty plus monopoly fees to the government. The forest produce of the State were sold in given the following system:

- a) By auction
- b) Tender allotment and
- c) Permit system

(v) *Conservation of Forest and Revenue Receipts*

However, the study unearthed the truth which cannot be deviated that, the colonial authority undertake a 'afforestation scheme' to some extent in some part of the State's Reserved Forest areas but the operation of forest resources by the colonial state was judged against the degree of exploiting the forest (The foremost thing was to collect a percentage royalty with a small amount of investment for the conservation of forest). It also found that, the colonial intervention of Manipur forestry (1891), introduce a scientific method of forest management so also introduced commercial forestry (timber for revenue). Thereby, the colonial introduction of forestry, the

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<sup>13</sup>ARM, MSA, Imphal, 1904-05, p.11.

<sup>14</sup>ARM, MSA, Imphal, 1910-11, p.11.

<sup>15</sup>Singh, N. Lokendra, (ed.), *Land Use System of Manipur Hills*, Rajesh Publications, New Delhi, 2004, pp.84-85.

<sup>16</sup>*The Survey Report on the Distribution of Bamboo Species in Manipur* (hereafter SRDBSM), Forest Department Government of Manipur (FDGM), 2004, p.11.

<sup>17</sup>ARM, MSA, Imphal, 1894-95, p.14.

decrease in the forest area began. The study examines the colonial authority view on (Indian) forests were unproductive; the expansion of agriculture is the sign of progress, encouraged the agricultural expansion and plantation of industrial cash crops (jute, sugar, wheat, cotton, tea etc). For, more forests areas were cleared and brought under agriculture to earn more revenues. The changes brought to them by the colonial administration were judge against their rights and observed as exploitation and oppression of the forest dwellers.

Cachar Border Forest Revenue Receipts (1915-1947)

Sl.No	Year	Revenue (Amount of Rs)
1.	1915-15	12,242/-
2.	1916-17	11,795/-
3.	1917-17	8,795/-
4.	1919-20	16,578/-
5.	1921-22	31,451/-
6.	1923-24	17,599/-
7.	1924-25	3,982/-
8.	1926-27	36,259/-
9.	1927-28	48,441/-
10.	1927-28	20,912
11.	1930-31	80,035/-
12.	1933-34	10,786/-
13.	1934-35	11,808/-
14.	1936-37	12,848/-
15.	1937-38	16,284/-
16.	1939-40	25,052/-
17.	1940-41	37,880/-
18.	1942-43	25,784/-
19.	1944-45	31,752/-
20.	1946-47	77,752/-

Source: Administrative Report of Manipur State, (Correspondent Years)

Also, the colonial forest officers view on Manipur forest resource as an agent of state revenue. ‘The forest revenue should be to expand the exploitation and uses of timber rather than raise its costs.’ The increase for revenue, however, had a detrimental effect on the forest, because there was no restriction imposed on the extraction of trees (without technical advice).<sup>18</sup> For, it was at the mercy of the timber trader, whose interest was to take as many as possible. The avenue to expand the state revenue timber is followed by grass resource, in Manipur. The grass mahal and reserving the right to extract the grass was essentially interference into the traditional rights of the villagers, which they had been enjoying from time immemorial. As a sign of protest

<sup>18</sup> Bhattacharya, M. *Gazetteer of Manipur State*, Anushilan Press, Calcutta, 1963, p.21.

of this colonial grass law it often occur a conflict with the fishery or village land, the villagers used to opposed the leases. Thus, it's found that the colonial authority taken their right to land in their own forestland. The authorities fell to check the over-extraction.<sup>19</sup> The forests were left unexploited only with the means of road and transportation system found difficult particularly in Manipur state.

## **Chapter 4. Colonialism and Jhum Cultivation in Manipur**

### **Jhum Cultivation**

This chapter deals with the following subheadings: Historical Background of Shifting Cultivation, Land Tenure and System of Land Holding in Manipur, Modes of Shifting Cultivation (Cropping Period and Jhum Cycle, Economic Yield and Crops under Jhum, Harvesting and Storage and Tools Use), Jhum, Hills Tribal Economy and Socio-Cultural Life.

The nature nursed the hills tribal from their ancient period. Agriculture is the backbone economy of Manipur State. About 84% of the total population of Manipur depends on agriculture. They depend more or less upon natural (forest) resources of various types from which they extract their livelihood. Forest and agriculture are the major resources of the tribe in which resources of agriculture form the key parts for their livelihood as well as for commercial activities. The northeastern fringe of India is mountainous with dense forests with steep and rocky mountains in several parts of the major portion of the land is favours for *jhum* or shifting cultivation locally known as *Pamlou*. The Northeast region of India, the ethos of agricultural practices, cleared forest, burnt and slash, wild fire, burning jungle, cutting down of trees of the jhum cultivation. However, this practice is hitherto practicing. In fact, the long tradition of *jhuming* brought harmful to some extent to the environment. The study unearthed that; the rural areas are environmentally more sensitive as their livelihoods mainly depend on natural resources for survival. It has found, the colonial authority concerned of only revenue receipts. That, when the forest officer of Manipur (D.C. Kaith), proposed for subsidiary industries like forestry factory, oil, cloth dying, sealing wax, printing inks, wheel grease, etc. to give a job opportunity for the poor daily wage earner, but the proposal was rejected by the colonial power however the work of exploiting the trees were in progress. They neither improved the forestry nor given a job opportunity

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<sup>19</sup>ARM, MSA, Imphal, 1936-37, pp.13 & 14.

for the local inhabitants, for such venture would involve a heavy expenditure which colonial authorities were not ready to invest.

### **Jhum Cultivation under British Forest Law**

The study found that, under the British colonial intervene the Manipur forests the forests were divided into Reserved Forests, Protected Forests and Un-classed Forests. However, the bonafide villagers (notified earlier to be located within the reserved forests) have the rights to jhum cultivation, extraction of wood, grazing, hunting, etc. subject to the control and supervision of the State Forest Department that means to use the natural resources were under permission. Latter the colonial states, “the destruction forests were regretted. However, they did not taken into account for preservation of forest from an ecological destruction but they cared for revenue receipts. On the other hand in Manipur, the prohibition of the shifting cultivation in the hills areas only because of the reason of road transportation expansion. However, they colonial not at all prepared any substantial sponsored schemes to restrict this type of cultivation. The colonial authority encouraged wet cultivation and a more existence” but construction of irrigation channels, which provides water to encourage terraced fields.

### **Jhuming and Ecology**

Forests remain part of their social life and to protects and manage the forest the whole community took part. The connection between forest loss and jhum is questionable at best as there are numerous other factors at play including areas where jhum is practised. The practice of jhuming or rural modes of production in Northeast India have been, a continuation of pre-independence British policies. Ecologically, the practice of jhum has had certain experts convinced that it has harmful effect on the local environment, on the others hand, some often thwarted those arguments and concludes, jhum a sustainable form of agricultural production best suited for the specific ecology of the hill regions like Northeast India.

The arguments against jhum (from state forestry departments, Development of North East Region, World Bank etc.) based on, this modes of unsustainable practice that depletes the soil of nutrients, reducing the forest cover, causing landslides, etc. and many scientists (Indian Institute of Science, Tata Energy Research Institute and UNESCO) who found favoured of this cultivation. Therefore, it’s found that jhum cultivation has various positive trends at play, and need to continue considering the

importance of jhum to rural populations particularly in Northeast India, food sustenance through an egalitarian cooperative mode of agricultural production. At the different levels that they would not like to suppress shifting cultivation, but rather work on ways in which it can be integrated with ecological and conservation concerns. The study found, the Manipur state occupied the maximum jhuming areas as per areas in Northeast state of India also the only state which had also never been found the policy or programme to improve since from the colonial period. Improvements of shifting cultivation through modern technologies were not introduced or imposed them.

## **Chapter 5. Water Management in Manipur during Colonial Period**

### **Pre-Colonial Water Resource**

The study found that, in valley of Manipur (under the kings' rule) water resources were taking good concern under the department of called *pukhranba* and *lakpas*. Further, the study found, no records of pipe-water supply in Manipur prior to the British advent. The maharajas or the kings dug and make use of pond (*pukhri*) waters. Even in the early period of colonialism (1892-93), there were no record available supplies of pure drinking water.<sup>20</sup> Community ponds were commonly found in the settlements and found functional with well-designed and people still make use of it like *Ningthem Pukhri*, Imphal (Maharaja Garibnawaz in 1726).<sup>21</sup> In 1894, after the experiments and investigation, the *Norton's-tube-wells* or also with the wells of the ordinary type were installed in Imphal area.<sup>22</sup>

### *Water and Religion, Fort, Games and Amusements*

It also found that commonness of palace's fortification in India also found practiced in the small kingdom of Manipur, of all the three major popular methods of forts construction in Indian, water fortification was found practice by the Manipuri kings (The Kangla fort in Imphal).<sup>23</sup> Water also used as a game of entertainment under the king (great boat race use to take place every year, and water was always kept weeded and cleaned for these events).

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<sup>20</sup>ARM, MSA, Imphal, 1905-06, p.8.

<sup>21</sup>ARM, MSA, Imphal, 1892-93, p.22.

<sup>22</sup>ARM, MSA, Imphal, 1892-93, p.22.

<sup>23</sup>Ch. Gopalmach Angomcha, *Personal Interview*, Secretary Sana Konung Sangat Lup, Age 43 years, Place Sana Konung (King's Palace), Imphal, 2014.

### *Hills Water Resource Management*

The study examines the methods, which is of locally blend suited to meet their needs. The steep and rocky mountains were found in several parts of the Manipur hills, which is quite accessing difficulty of water resource. However, the traditional water resource management adopted the methods found favour for the hill people, which have been tried from the past to meet the requirement for the domestic water and agricultural needs. The methods of streams channelisation, bamboo drips irrigation method, were widely in practiced, though no major and medium irrigation projects. Also found mostly the hills tribal were depending upon spring water of mountain for most of their every need.

### **Colonial Policy towards Water Resource Management in Manipur**

An acknowledgment of appreciation and gratitude, to the colonial British for the introduction of pipe water (domestic purpose) in Imphal valley for the first time (to save from epidemics course claims of impurities water contained, the germs of cholera) so also, the first to levy a tax on water. The colonial authority rejected the petition against the tax on water filed by the people of Manipur. The colonial claimed drinking of pond water is not safe, on health ground. However, the colonial authority extends funds for renovation of ponds and giving some grant in aid towards the excavation of a tank. The colonial viewed, water of ponds/tanks water were unsafe for drinking and felt wonder to them for life was possible under the conditions which the people live of, by washing clothes and cooking utensils and bathing all in the same small tank, and then drinking the water, that were highly injurious to health.<sup>24</sup> However, this claim cannot be fully accepted because the people of Manipur are still in use of pond water and yet the people are sturdy and long lined race.<sup>25</sup>

### *Water Tax and System of Collections during Colonial Period*

The colonial authorities was the first to formulate and provides a water pipes in an around the Imphal valley, so also, the first to levy a tax on water in the state (1936, F. M's Memo No. 376 W. F/C11- 6), "all the inhabitant of a house were jointly and severally liable for the water tax to the house in which they lived".<sup>26</sup> Under Public Works Department water works were maintained and managed by providing supply to public mostly in the valley of Imphal areas and collections of tax on water were made

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<sup>24</sup> ARM, MSA, Imphal: 189-92. p.9.

<sup>25</sup> ARM, MSA, Imphal: 189-92. p.9.

<sup>26</sup> MSD, MSA, Imphal: 1936.p.11.

each year with separate budget of its own. Steps were also made when water tax amount realised was fell and it was below expectation the scheme of collections of taxes were made by appointing a number of staffs that consists of;<sup>27</sup>

- i) 1 clerk
- ii) 4 water rate collectors
- iii) 5 peons, and further augmented by the addition of
- iv) 3 temporary peons for three months in the year.

### **Water and Environment**

The colonial authority has taken up numerous steps to improve the domestic water resource management and changes have been brought in Manipur state during their period. Floods were the phenomenon confined to the Imphal valley. Using of *pukhri*'s or tanks water and sickness were the results of water quality and diseases spread. The study found that the colonial concerned as their duty to protect the town as much as possible from the point of sanitation and epidemic.<sup>28</sup> Flash floods were quite frequent within the urban settlement areas during rainy season due to poor drainage conditions. The money payment of Rs.46, 000/ for the repair of flood damage causes under “Shingling Pukhao Road” Mayor Head No. 8:-<sup>29</sup>

- i) Jail Member- hire of one boat and 4 boats-Rent-----Rs.15/-
- ii) M/S S.L Nimai Singh & N.Kanhai Singh- price of 2nd of Salt---Rs.30/-
- iii) M/S Saligram Rai Chunhlal Bahabur-price of 66 ties of K.oil----Rs.398/1/-443/1/-
- iv) Yengkokpam Rama- a Widow-----Rs.291/-
- v) Khtrimayum Thabal - a Widow -----Rs.300/-
- vi) Ningthouyam Tharo a Widow-----Rs.200/-
- vii) Puthem Thamjit a Widow-----Rs.200/-991/-
- Second flood reliefs Cost-----Rs.9629/-

Policies towards dams, irrigations and hydro-electric projects under the colonial period in Manipur, also found this policy were not much of appreciation ascertaining the possibilities of waterpower. Further the proposed for constructions of dams (Reservoirs of large size) were also not encouraged as construction of large size Reservoirs would require high dams. They also taken the steps of river embankments<sup>30</sup> and intervened to improve the water value in Manipur under the ‘Public Health’.<sup>31</sup> Thus, the colonial authority has taken up numerous steps to

<sup>27</sup>ARM, MSA, Imphal: 1937. p. 47.

<sup>28</sup>ARM, MSA, Imphal, 1891-92. p.7.

<sup>29</sup>MSD, MSA, Imphal, 1946. p.156.

<sup>30</sup>ARM, MSA, Imphal, 1916-17, pp. 9&10.

<sup>31</sup>ARM, MSA, Imphal, 189-92, p.9.



improve the domestic water resource management and changes has been brought in Manipur state during their period.

## **Chapter 6. Local Response to the Colonial Resource Management**

### **Forest Society and Colonialism**

Man depends on nature for the sustenance of his livelihood and creation of his civilization. There's a close relationship with his environment. After the middle of the nineteenth century, the customary rights on forest were become detrimental to the tribal interests. The forest policy (1884) curtailed the tribal's rights to use the forest produce. Steps were taken up to intervened the Indian forest resources (systematic management of forestry in India). They appointed a German forester Dr. Dietrich Brandes (the first Inspector General of Forests of India). Following the forest law, everything is restricted unless permitted. "The Government could declare any class of trees in a protected forest or any trees in any such forest, to be reserved from a date fixed by notification, declare a portion of such forest to be closed or prohibit removal of any forest-produce".<sup>32</sup> The village forests as well, the Government retained the authority to cancel or assign the rights to village community though these forests were to provide timber, other forest produce and pasture to the people.<sup>33</sup> Traditional forest management was organized in accordance with the local socio-economic and cultural realities, which best suited for them. However, since 1920s, British colonial authorities in India made a number of attempts to introduce new local forest management systems. The forest laws and rules imposed great hardship on the villagers and peasants of the country. The age-old practice of cutting trees for their housing, grazing their cattles, collecting forest products for food, hunting and fishing were declared illegal. The enclosure or intervention of the forestlands by the colonial authority was the first step in forest change of hills tribal of Manipur. For, each village had boundaries and land to belong to the community they looked after the natural resources of the village and protects the forests.<sup>34</sup> The drastically changed of economy of the open field and the common lands by the colonial led the movement against the forest law by the tribal (the Santhals of Chhotanagpur revolt in 1855 and Gudem-Rampa in Tamil Nadu, 1879-80). Thus the creation of forest's movements in

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<sup>32</sup> Ruchas, Ghate, *Forest Policy and Tribal Development* (hereafter FPTD), Ashok Kumar Mittal Concept Publishing Company (hereafter AKMCPC), New Delhi, 1992, p.35.

<sup>33</sup> Ruchas, Ghate, (FPTD), (AKMCPC), New Delhi, 1992, p.35.

<sup>34</sup> Though the tribal did not developed notion of private property of forest, however the relationship was expressed in term of mutual obligations.

India during the colonial period were responsible to the British policies which; i) tightened state control over forests areas ii) banned or restricted shifting cultivation iii) curbing hunting, timber use and grazing etc. however conservation of these forests were far from environment conservation.

### **Rise of Commercial Forest and Colonial Forestry**

Environmental movements in the colonial period were to the British policies which i) tightened state control over forests areas ii) banned or restricted shifting cultivation iii) curbing hunting, timber use and grazing etc. (the Santhals of Chhotanagpur revolt in 1855 and Gudem-Rampa in Tamil Nadu, 1879-80). The recent past there has been spectacular growth in public consciousness about the forms of environmental degradation in India (the Chipko Movement and Bhopal deeply illustrated the social consequences of environmental degradation). The colonial government has taken a step to clear the forests in the view that the forests were unproductive, and more forests were to be brought under agriculture to earn more revenues. Under the proposal for increasing the income of Manipur state 1919 (File No.152 C/-), it was advocated with the purpose to increase the revenue that, to lease the high waste land, for the purpose of cultivating various products, such as cotton, wheat, sugarcane, tobacco, potatoes, chilies, peas, dal, etc. for the first year free of rent, “to enable those concerned to clear up the jungle of the selected spots, the 2<sup>nd</sup> year”. When the system generates and proves a success the revenue may be gradually increased to the same rate (fix rate of Rs. 6 per pari) as the lands under paddy cultivation.<sup>35</sup> If once settled down the matter, this concern and profit much, “they will be reluctant to relinquish revenue is increased to their lands even when the revenue is increased in the course of time. This experiment is anticipated to encourage and hasten the utilisation of such land, and whether or not it succeeds time alone will tell.”<sup>36</sup> The mode of exploitation of forest resources by the colonial authority were under certain schemes of forest management conservancy policies adopted by the State. The Manipur Forest has no definite forest policy on scientific management (1891)<sup>37</sup> also far from subject of commercial exploitation. The British intervened the Manipur forest and conserved for

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<sup>35</sup> *Confidential file*, Manipur State Achieve (hereafter MSA), Imphal, 1919, p.10.

<sup>36</sup> *Confidential*, MSA, Imphal, 1919, p.10.

<sup>37</sup> *The Survey Report on the Distribution of Bamboo Species in Manipur*, Forest Department Government of Manipur, Imphal, 2000, p.11.

the commercial forestry<sup>38</sup> rather than maintaining ecological balance or protecting the environment by preserving forest resources by leasing out the forest for the highest bidder. The policy of colonial forestry extensively curtailed the right of the forest-dwellers in Manipur, classifying the forest into different categories by various forest Acts. Also disturbed the mode of production and resulted of deteriorated economic conditions over the period. The colonial government gradually realized the danger posed by indiscriminate deforestation by the forest contractors. The forest trees covered the valley of Munnipoor (now called Manipur) as they now do those of the Jeeree (Now called Jiribam) and Kaubbo (Now called Kabow Mynmar) they have now, except in one spot, entirely disappeared.<sup>39</sup> And they decided to start a systematic management of forestry in India.<sup>40</sup> “The price received for the samples of lac sent to Calcutta was poor, but as the demand for this commodity is said to be increasing it might be found profitable to extend its cultivation. Some experience have been tried in cultivating lac in the Langol Hill Forest reserve near Imphal, but without expert advice it is difficult to carry out such experiments with success. If a young Manipur was trained at the Dehra Dun Forest School, it is probable that his knowledge would be of great practical use in developing the natural resources of the state.”<sup>41</sup>

A clash between construction of roads and the *jhum* cultivator in the hilly areas occurred oftenly took place. The colonial authorities constructed roads of Imphal - Cachar Road, Imphal - Dimapur Road through the cultivable hill ranges of the hill tribes of the state. The hill-men living along those roads were prohibited to cultivate within 50 feet of the road. In this regard, the President of Manipur State Darbar recorded in his tour diary that the Sub-divisional Officer of Tamenglong had been instructed to put up standing orders against roadside jhuming. However, this imposition of prohibition was just a mere forbid to prevent erosion and possible

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<sup>38</sup>Singh. N. Lokendra, *Land Use System of Manipur Hills*, (ed.) Rajesh publications, New Delhi, 1976, p.85.

<sup>39</sup> W. McCulloch, Mittal Publication, New Delhi, 1980, p.3.

<sup>40</sup> The colonial Indian government established the Department of Forest by appointing the German forester named Dr. Dietrich Brandes, as the first Inspector General of Forests of India. The officials surveyed the forests and made the working plans for the management of the forests. Thereafter, they began to put forward how much of the trees were to be cut and how much of new varieties of trees were to be planted in their place. The forest department planted commercial trees which were required for the industries, ship building and railways in India.

<sup>41</sup>E.W. Dun, *Gazetteer of Manipur* (hereafter GM), Manas Publications (hereafter MP), Delhi, 1992, p.6.

damage to the road by the felling of trees, as the safety road was the only motive behind for the colonial ruler.

### **Changes in the Forest Societies under Colonialism**

Forests form the principal resource of the state and the development of the forest. However, the contribution of the forestry to the State's income is extremely small and the productivity of the forest in the State is much less than that of similar forest areas of the neighboring state. Therefore, on the point the colonial authority states, something must be done to manage the forest in the State on scientific lines as that, they prove to be a major source of income to the State. The forest laws passed by the colonial authority gradually began to lose their indigenous rights over their own forest land and resulted to revolted against them because of their exploitation and encroaching on their land (eviction from their land, annulment of traditional legal and social rights and customs, against enhancement of rent, for transfer of land to the tiller). The development of communication (telegraphic, roadways and railway services) and the introduction of the common administrative system ruined the natural economy of the forests. The Manipur mountains were densely clothed with tree-jungle to their summits but disappearance and barrenness of many of the hill sides with the human activities [E W. Dun in 1886].<sup>42</sup> The forests were developed for the expansion of the colonial trade and commerce, and for the movement of the colonial troops. In Manipur, the forest laws like indiscriminate cutting of wood in this valley village reserves were prohibited and none cut wood there from for sale. None can fell or cut trees and grazing cattle from Reserve without a permit from the Forest Member and the like.<sup>43</sup>

### **Forestry and Response against the Forest Law**

Since 1931 the creation of a separate Forest Department in Manipur began following the report of A. J. Milroy, in 1914, Thereby, D.C. Kaith's reports of 1932 The bifurcation of Manipur from the Assam forests based on scientific management of Forests in.<sup>44</sup> However, could not be wholly implemented for there was strong opposition of against the report by the people of the land especially the forest contractors and the tribal Chiefs. The tribal chiefs claim the rights of ownership of forest lands as they felt that all forest wealth including forestlands belonged to them.

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<sup>42</sup>H. W. Dun, GM, MP, Delhi, 1992, p.83.

<sup>43</sup> MSD,MSA, Imphal, 1936, p. 14.

<sup>44</sup> Singh, G, *The Manipur Forest Manual* (1970) Vol. I Govt. of Manipur, 1969, pp. 4-5.

Any development programme taken up by the Forest Department for better management of forest resources was regarded by the forest dwellers as an infringement of their natural rights and as, such. The Forest Department was helpless to take up any measure of regulation for the regulation of Manipur forest.”<sup>45</sup> The President of Manipur State Darbar, Mr. Higgins opined that the object should be to expand the exploitation and uses of timber rather than raise its costs. The Indian Forest Act of 1927 classified the forests as Reserved Forests, Protected Forests and Unclassed Forests and The Indian Forest Act 1878 of Colonial India surveyed and declared as protected forests as under the ‘State Forest Reserves’ that the whole forests areas overlooking the valley Manipur. The Political Agent of Manipur<sup>46</sup> declared the forests one after another as “State Forest Reserve” in 1895.<sup>47</sup> Following the colonial forest Acts, D. C. Kaith reports (the first forester of Manipur state) to envisaged four types of forests, in Manipur<sup>48</sup> State Reserve (To be put under strict state protection), Valley Village Reserve. In 1933, the colonial government took over the forests. Besides, of timber, the thatching grass overlooking the valley where an area grasses were found growing (fit for sale) was sold by leasing out to the contractors. Thus, the traditional rights of the indigenous people to use unreservedly of forest produce were at the hand of the rich and influenced contractors.<sup>49</sup> This losing of traditional rights by the indigenous people resulted to conflicts with the leases and the villagers. From the earliest activities of the state declaration the tribal forest dwellers were not happy with the new forest law. Therefore, they sent a complaint letter about the new forest law, although no changes had brought to them.

### **Impacts**

The traditional land system of the British was turned into tenancy systems. With the following of introduction of market economy system (economically) created a class of trader. The tribal tenants had to pay the rent in cash. As they did not have cash with them, they had to borrow from the money-lenders. In these ways, the British introduced class of trader, money-lenders and contractors (Thekedars) in the tribal areas. The forest policy of the colonial government affected the life of the indigenous

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<sup>45</sup> Singh Arambam Sanatomba, *Forest Economy of Manipur Perspectives for Scientific Management*, unpublished Thesis Department of Economics, Manipur University, Canchipur, 1999, p.5.

<sup>46</sup> ARM, MSA, Imphal, 1891-92, p. 6.

<sup>47</sup> ARM, MSA, Imphal, 1891-92, p.111.

<sup>48</sup> *The Survey Report on the Distribution of Bamboo Species in Manipur*, Forest Department Government of Manipur, 2004, p.12.

<sup>49</sup> ARM, MSA, Imphal, 1915-16, p.11.

forest dwellers. The commercial forestry benefitted small sections of the people who changed their profession to the trade in forest products. The forest laws changed the life style of the tribal communities. The hunting and fishing rights were banned by the colonial power. Many ignorant tribal were punished for breaking these laws. The form of resisting movement against the British authority by the tribals (forest law) may perhaps different to some extent in the form (exploiting the peasant by the landlords in form of extracting exorbitant amount of rent from the tribals, evicted them from their land and extracted beggar (forcible labour) from the tribals). However, the movement against the new forest law, were far from different of being deprived of their belongings from other parts of India.

## **Chapter 7. Conclusion**

This chapter forms the concluding part of the study and the summary of the finding of the study as follows:

### **General Findings of the Study**

The general findings of the study are:

The forests were commercialized and exploited to the maximum advantages of colonial state by the British. With the foremost thing was to collect a percentage royalty paid by the Manipur Government with small amount of money invested in the form forest conservation. Right to land in their own forestlands were at the mercy of some few rich or contractors by the colonial forestry. In the name of State Forest Reserves, extractions of forests were judged against the reforestation in the context of Manipur. It is found that in Manipur (unlike the state of Uttar Pradesh), the British do not create, 'local forest councils' (Van Panchayats) to redress intense local opposition to the reservation of large tracts of state forests land or to provide a buffer between state forests and local villagers (forest management responsibilities can be divided between the forest department and the local villages. Forest department would protect and manage crucial watersheds and commercial timber production reserves, and local communities, with advice and technical assistance from the forest department, would manage the remaining forests for local needs). Therefore, of all these policies or measures to safeguard were failed to taken up, sometime led to strong opposition from the tribal people and their chiefs in Manipur state during the colonial period. The hills tribal showed disrespect of such new colonial forest law in the middle of the 19th century. The degrees of resisting were not highly challenged, however the movement

against the colonial authority had taken place by the hills tribal. Though the movement brought unchanged to the colonial power of forest law brought to them the colonial forest law. Thus, the impact of Colonial forestry has had range wide ranging consequences to observe the enriching part of Indian forestry by the British and their collaborators was overwhelmingly negative that it caused irreparable environmental damage, jeopardized the livelihood of communities who subsisted on forests. For, their main objectives of the authority were only to secure the percentage share of the tax paid by the state for the supervisory role in the management of the forest (The DFO of Cachar was instructed by the Assam government not to work for the improvement of the forest except the work of collection of royalty. Following the introduction of scientific forest in Manipur by the colonial British, the resource of the land of both timber and the grass were taken into account for the revenue receipts. From the earliest activities of the state declaration, the tribal forest dwellers were not happy with the new forest law. Although no changes had brought to them they sent a complaint letter about the new forest law. The traditional rights of the indigenous people gradually lost their rights, which they had cherished and enjoy since from the early period. Now the forest, which claimed as their property by the Manipuri, were at the hand of the rich and influenced contractors under the new forest law. This losing of traditional rights by the indigenous people resulted to conflicts leases. However, these conflicts may not directly taken into account as movement against the colonial authority like other parts of India, but the movement roused by the hills tribal was the sign of protest against the forest law brought to them by the colonial authority. The study found out to suggest that the colonial authority did not encourage jhum cultivation. On the other hand, they also not taken any steps to diminish the system in practical, the colonial failed to adopt a definite state policy to stop the jhum. Yet, the Manipur state did not initiate any steps and policy to discourage or other wise to improve from the old system or methods of jhuming while other neighbouring Northeast states are taken up jhuming policy, though recently. On the other hand, poverty, lack of alternative and population growth, sometime makes them compel to continue the environment degradations to meet their economic sustenance.

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