Chapter-V

TOWARDS UNDERSTANDING THE ECOLOGICAL CHANGES: CONCLUSION.

The ecology of the world has been altered by western imperialism and western capitalism. Their dynamic expansion disrupted the ecosystems first through trade and later by colonialism. The country’s encounter with a technologically advanced and dynamic culture gave rise to profound dislocations at various levels of Indian society. Such interventions reshaped the social, ecological and demographic characteristics of the habitats. The Europeans exercised their control over mineral, plant and animal resources for industrial growth. These interventions radically altered the existing food production systems and their ecological and social fabric of Indian society.

Man was seen to be an external factor in shaping the natural environment. But such a distinction between man and nature would sound inappropriate in the present perspective where desertification and deforestation are our present concern. The value and emphasis of ecology within the environmental and ecological history was to direct the attention away from an excessively anthropocentric understanding of the world. Moving firmly
within the parameters of environmental history we find the study of human engagement over time with the physical environment and its influence in human history. The different elements of nature like climate, topography, animal and insect life, vegetation and soils had directly or indirectly had its effects on the human activity and productivity. They help to promote or prohibit specific forms of social structure, economic organization and belief systems. In the same way man can also alters the landscape, fells trees, erodes soils, dams streams, kills off unwelcome plants and predatory animals, introducing new species.

Moreover within the bounds of environmental history, there is a history of the environment as cultural space and ideological artifact, as expressed through the invocation and representation of nature in art and religion, in myth, in ethics and the law. It had been said that the history of environment is also a history of popular perceptions and experience, of folk traditions and religious belief. It is said that this kind of environmental history creates a distance with the ecological sciences and bring us closer to anthropology, art, literature and religion.

With the manipulation of immense amount of energy made possible by technology, the human use of resources became increasingly exploitative
with an accelerating impact of change on ecosystems around the globe. Discussing the different modes of resources there were possibilities of social strife between the different modes when they came into contact with each other. The results were sometimes violent and genocidal conflict. Ecological bases of conflict resulted in the extermination of the native population and traumatization of certain segment. One of the best documented of such conflicts is the clash between the indigenous hunter gatherer/ shifting cultivator populations of the New World on the one hand and the advance guard of European colonists practicing an altogether different system of agriculture on the other. The rise of industrial capitalism radically altered relations not merely in land and the workplace but also around the utilization of nature. With the control of the forest by the state resulted in increase of forest crimes. The peasants resorted to poaching and the theft of forest produce.

India also underwent the same experience that is the encounter between peasant and the industrial modes mediated by colonialism resulted in intensification of social conflicts over forest produce. The take over of forest land for strategic and commercial purpose resulted in clash over forests, lands and water in colonial societies as it happened when land was
taken away from traditional peasants for the purpose of large scale cash crop plantations. The other was the restrictions on subsistence hunting-gathering and grazing for the use of colonists.

The intra-modal conflicts were more complex as one passed to more advanced modes of resource use. The situation became more acute when the typical characteristics of the mode were distorted to meet the ends of a particular social group. It had been seen in different periods that the shift from the peasant to the industrial mode, the conflict within the peasant mode intensify, when one class within the agrarian society had adapted to the socio ecological orientation of the coming mode. On the other hand in the industrial mode there are continuous struggle of individual capitalists with each other and against the state for the control over the non cultivated areas and other resources. Moreover the industrialization created a group of new working class whose interests were not always in harmony with those of capitalists.

Thus the human societies move temporally from hunting and gathering through pastoralism, agriculture and finally into industrialization. The process though distinct, were closely interrelated. Firstly there was an increasing intensity of resource use and exploitation. Secondly there was a
secular increase in the level of resource flows across different geographical regions and across different levels of any economic and political system. Thirdly there was an integration of larger areas into the domain of any economic and political system. Fourthly at the global level there was a secular increase in the population densities and in the extent of stratification and inequality with respect to the access, control and use of different natural resources. Finally these resulted in intensification of rates of ecological change and ecological disturbance. The different modes of resource use had been classified according to the technology, pattern of resource flows, social structure, dominant ideologies and systems of conservation.

It had been noticed that the tradition of Indian history witnessed an integrated agrarian system with highly sophisticated artisanal system of production for local consumption and for trade. There was enough space between the industry and agriculture, state and peasant to work smoothly. But this equation changed with the coming of the Europeans. Europe in the wake of industrial revolution was experiencing economic, political and social changes which had its impact on the mode of resource use. With the technological advances the resources were easily transformed from one form to another. There was increase in demand for some commodities. Wood in a
subsistence economy was used on a limited scale which was now converted into paper or burnt as fuel for the steam engines of trains and ships. Thus this conversion of commodities also radically transformed the flow of energy and materials also leading to outflow of different resources from cultivated lands, forests and water bodies.

The control over these resources were more confirmed by the technological advances made in the sphere of transport, transformation and coercion. This was done by converting the forest and water bodies into private or state property. All this resulted in breaking down of cohesive local communities with individuals acting on their own. Now the individuals could have unlimited access to the resources. The industrial mode of resource use helped in understanding the ecological conflict between India and Britain.

Thus the western capitalism brought about a disruption in the ecosystems through trade and colonialism. Colonialism led to global control over resources. Such interventions lead to reshaping the social, ecological and demographic characteristics of the particular land. The complex of weeds, animals and diseases the Europeans brought devastated the flora, fauna and human societies of the new world. Their intervention radically changed their existing food production systems and their ecological basis.
Thus with the dawn of the industrial era the world became a place of continuous, ever accelerating change. The natural environment was rapidly substituted by an artificial one composed of new chemical and physical agents, many of them possessing powerful capacities for inducing biological change.

Large areas of the continental tropics that were colonized underwent extensive ecological change. The ease of access permitted to both British and Indian entrepreneurs under the East India Company as a consequence of the political demise of the old princedoms was a critical factor in accelerating deforestation. Political division and traditional controls had the effect of cushioning Indian forests from the increasing pressures imposed by external markets and small private enterprise. As a single political and colonial entity, India became more vulnerable to both externally and internally generated economic and ecological pressures. Environmentalism achieved institutional diffusion through the wide development of professional science in the colonial context and through the further diffusion of climatic and medical environmentalism among intellectuals and in the government. Global environmental consciousness which emerged in the context of European colonial expansion occurred between 1660 and 1860.
The trade and territorial expansion of the Venetian, Dutch, English and French maritime powers were characterized by a connected and coherent intellectual evolution of ideas and concepts with the drastic ecological consequences of colonial rule and capitalist penetration. The rapid ecological deterioration led to the process of counteraction.

The intellectual and scientific developments also proved a stimulus in valuing the environment in literary, scientific and economic terms. The establishment of the Asiatic Society of Bengal marked the beginnings of a long association between British aggrandizement in India and the flowering of Oriental and scientific scholarship in the early nineteenth century. The association helped to promote the flow of ideas between scientists in India and those outside the country. The development of colonial botanical garden also formed the basis for new kind of learning, information collecting and networking in the tropical environment. The colonial botanical garden provided the basis for the institutional emergence of environmentalist ideas.

The East India Company authorities in London and Calcutta also became increasingly aware of the advantages that might be gained from playing an active role in promoting and investigating in crop experimentation and from
efforts to transfer new crops and centralise them in botanical gardens in company territories.

The scientific societies also expedited the more rapid, large scale and regular transfer of intellectual ideas, innovation and exchange. The economic and social changes brought by the rule of the East India Company, the ecological consequences of western penetration and the development of state responses to such changes became topics of considerable interest of the historians. Deforestation and the colonial response towards it had a direct and far reaching effect on agricultural production and population movements. The development of a distinctive group of professional scientists as environmental commentators took place canvassing new scientific insights and sympathetic attitudes to nature. The identification between moral or reformist sympathies and environmental concern became a characteristic among scientist in India. Indigenous knowledge, management and afforestation methods were taken into consideration for forming the company’s environmental policy than any set of ideas imported from outside India. The sheer speed of ecological change implicit in the activities of capital in the context of colonial expansion made environmentalist ideas and
conservation policies inevitable simply to protect European capital or settler investments.

Thus colonial environmental policies arose between 1650 and 1850 as a product of tensions existing between colonial periphery and metropolitan centre and between colonial state and environmentalism. Modern environmentalism emerged as a direct response to the destructive social and ecological conditions of colonial rule other than being a product of European predicaments and philosophies.

The debate about climatic change gained importance in international sphere by the mid 1860’s. It was reinforced by more detailed research that raised the possibility that the very constitution of the atmosphere might be changing. Such views, the beginnings of the current ‘greenhouse’ debate, had found early advocacy in the writings of J.Spotswood Wilson in 1858. The spectre of human extinction as a consequence of climatic change became an issue of thought and awareness. This was consistent with the fears that had been developing among the emerging world scientific community for a considerable period. By the early 1860’s therefore, long established anxieties about artificially induced climatic change and species extinctions had reached a climax. The penetration of western style economic
development spread initially through colonial expansion, was increasingly seen by more perceptive scientists as threatening the survival of man himself.

Scholars often debate that whether the environmental history is truly global in sense. National and local case studies had been referred focusing more on the environmental records of individual nations and groups rather than on the global historical process and material flows that have generated their problems as well as their options. Most of the global narratives treat different regions in terms of ‘comparisons’ rather than ‘connections’. The narratives had failed to consider world as a system in which environmental transformations in two geographically distant countries or regions may be closely intertwined in terms of causal connections. The global environmental impacts of these interconnected and asymmetric material flows, geared to capital accumulation in core areas, are today being assessed in terms of ‘ecological footprints’.

Long distance traders saw opportunities to profit from geographical discrepancies between different cultural valuations of commodities. In the regions of the world-system where these imports originated, local producers were encouraged to invest labour and transform landscapes to increase their
income in response to such distant demand. The social and environmental impacts of such export production, particularly over the last five centuries, had no doubt affected most of the land surface of the Earth. Trade in cotton, silk, sugar, coffee, tea, tobacco, silver and furs had its impacts.

Thus a truly global environmental history examines how particular constellations of cultural demand had encouraged specific strategies of accumulation and export production, how such interconnected strategies of accumulation have entailed net transfers of energy, embodied land and labour and how these processes of extraction, production and transport have affected societies and environments in different parts of the world-system.

Historians of South Asia have largely neglected the question of how far the imperial phase saw a qualitative change in the relationship between people and the natural environment. Two broad areas of focus have emerged, namely the changes in imperial attitudes to the natural world and the responses and strategies of underprivileged groups to new systems of resource extraction and regulation.

The sheer ecological and cultural diversity of the Indian subcontinent radically and problematically distinguishes its environmental history from
the French or American experience. Indian landscape was dominated by settled villages, the numerous and widely dispersed communities of hunter-gatherers, swidden cultivators, nomadic pastoralists and fisher folk and they all have contributed to a cultural and ecological diversity which was surely unparalleled. From the period 1870-1900 many environmental arenas like forests, fisheries, irrigation, epidemic disease witnessed high imperialism and confidence in the capacity of science and technology to rule nature and utilize it to the full. Both colonial and post colonial states have powerfully influenced environmental change by formulating legislations for assuming control over resources that were more informal and decentralized systems of management. With the introduction of technologies the physical environment changed.

In the regions of South Asia the Europeans achieved domination over the indigenous population which was not automatic. It was through reshaping the socio-ecological fabric of the colony and the colonized. The Europeans modified the ecosystems everywhere by introducing animals and plants, extracting resources, deforesting many areas, establishing plantations and subjugating or decimating indigenous populations that had formed their own ways of interrelating with local environments. The political control was
achieved through their superior military and technological resources and they established colonial regimes in such a way so that they could manipulate unfavorable environment to their own advantage and profit. The ecological consequences of this intervention led to environmental degradation and restrictions on access to natural resources which was previously easily available for use.

The imperial forester saw the imperial phase as watershed where the colonials had saved the forests of South Asia from certain destruction by indigenous forest users. The rapacious private interests were brought under scientific supervision and control in the colonial period. But the practices of colonial forestry were largely an outgrowth of the revenue and strategic needs of empire. The colonial period is seen as an ecological watershed because it disrupted the relationship of forest based communities with the land. Customary restraints on the use of trees had earlier ensured renewal, but colonial land control and commercialization led to deforestation. The railway construction led to creation of Forest Department in 1864 to ensure steady supply of wood. The commercial exploitation disrupted the older system of land use and also promoted commercially valuable trees at the expense of species vital for subsistence economies.
Indian forest based on culture has a long history. Until the British colonial rule (1757-1947), Indian forest had been controlled and used by several monarchies. The features of forest based livelihoods were also quite different from one period to another. Before Muslim period, Indian forest used to be considered as an important source of resource, but exploitation was quite less compared to total forest cover. However during the Muslim and the early British period forest was considered only as source of timber. Until the British colonial period in India, a large number of people, mostly the tribal communities used to live in or around forest areas depending entirely on forest products. These people believed themselves to be the actual owners of forest with rights to use forest products for their subsistence purposes. Ritual, cultural as well as social celebrations were strongly interrelated with the forest environment. Thus there was no restriction on forest and forest products collection for forest people in India apart from forests reserved for hunting for rulers. So during the colonial period from 1757-1947, Indian forests were used as an important source of revenue. The British East India Company’s main target was to strengthen their rule over India and to increase their revenue from forest products. They were not interested in protecting the Indian forest.
The British government implemented a number of rules and regulations to control the collection of forest products by native forest dwellers. For the need of timber for constructing railway tracks, developing ship building industries for the Royal Navy, making furniture, providing a continuous supply of fire-wood and for the exportation of timber to Britain, heavy pressure was placed on Indian timber forests during this period. Between the period 1864-1899, timber imports trebled to ten million tons. In theory the reserved forest lands were supposed to be managed in a sustainable fashion but their takeover by the state resulted in confiscation rather than conservation. The mixed forests were replaced by single species tree which were known to be commercially valuable such as teak, sal, deodar. The tribals and the peasants were thus deprived of the forest products on which they depended.

Another additional pressure was the plantation cropping of perennial crops for world markets also led to depletion of forests. In the nineteenth century coffee and tea became India’s dominant export plantation crops and were grown almost entirely in the northeastern hill region. Speaking of the tea industry in India, the tea planters held dominant financial and political leverage, preventing their critics from mounting effective pressure to
mitigate their policies and preventing the state’s Forest Department, their competitor for control of forest lands, from gaining control over wide forest areas. The impact of the World War I on forest lands centered on wartime prosperity and expansion in the tea industry. With the rise of prices in Europe, acreage under tea extended rapidly.

Thus the intention of the British was to convert India as supplier of cheap raw materials and a market for higher priced manufactured goods. Large quantities of biological produce such as rice, cotton, jute, indigo, tea and teak and even gold and precious stones began to flow out of India. These commodities were produced cheaply. The tea plantations in northeastern India were set up by taking over tribal lands without any compensation. On them the labour worked under conditions in approximately slavery. The British people transmitted back home information on India’s landmass, its plant wealth, its people and their customs. But in return very little technical information flowed from Britain to India.

The Indian Forest Department, founded during the British rule, became India’s single largest landlord. They viewed all the needs of the ecosystem people as a burden, as ‘biotic’ not ‘anthropic’ pressure, as if the people behind these demands were less than human. Some lands were set aside, as
revenue ‘wastelands’, from which ecosystem people were expected to meet their substantial and vital biomass needs. The rights over these lands no longer existed. So these areas became no man’s lands and were overused without restraint. The conservationists have argued that commercial forestry has contributed significantly to the decimation of biological diversity and to an increase in soil erosion and floods.

European agricultural technology intruded into the rest of the world, bringing machines and crops that cleared and replaced indigenous animal and plant life. Plantation of crops in demand in Europe, such as coffee and tea, replaced the biodiversity of tropical forests with monoculture. With the manipulation of immense amount of energy made possible by technology, the human use of resources became increasingly exploitative with an accelerating impact of change on ecosystems around the globe. Industrial process generated increasing levels of pollution of the air, water and land.

The tea industry culture found its way into India with the help of the British imperialists though tea was indigenous to India and was known by the aborigines from time immemorial. Other than being an important non-alcoholic beverage tea also occupies a significant place in world commerce in the past centuries and does so also in the present time. The British traders
towards the end of the 18th century in order to end the monopoly of Chinese tea was in search of other alternative sources of tea leading to the establishment of the Indian tea industry in the first half of the 19th century. The strained relations of East India Company with China leading to Opium wars put an end to the tea trade with China.

Regarding the introduction of tea culture into India it can be mentioned that tea was indigenous to India and was known by the aborigines from the beginning. But it took Indian tea ten years to gain recognition. A debate was fought out in the dignified forum of the Agriculture and Horticulture Society of India. In 1841 there were two rivals before the Society claiming to have reported first to the world that tea was indigenous to Assam. Initially the Indian tea could not do away with the glamour that China tea shared. The British imported seeds, plants and workmen from China in spite of the native jat was much better suited to its requirements. It was only with the support of the private enterprise that tea industry was curved out of the jungles that covered over 2 million acres, with a capital investment of pound 36,000,000 giving employment to one and a quarter million people. Thus most lucrative sources of private wealth and government tax returns in the British Empire were created.
It is said that the decade of 1860 witnessed worst aspects of imperialism, the immorality, the avarice and hypocrisy that characterised the philosophy of laissez faire. The success of tea plantations at Assam resulted in competition to acquire lands among the Europeans for setting up tea plantations. The Wasteland Settlement Rules of 1838 were liberalized in 1854 to provide lease of land for 99 years on easy terms. In 1861, Lord Canning framed new laws so that the white entrepreneurs could purchase land through auctions.

The Chinese plant was more or less successfully introduced into Assam, the Himalayas and the Nilgiri hills, together with successful cultivation of India’s splendid native tea’s. It is interesting to note that it was not until twenty years later that the superiority of the native jat was recognized. Tea plantations were started in Assam, Kumaon, Dehradun, Garwhal, Kangra and Kullu valleys, Darjeeling and in the Terai regions of West Bengal.

With the success of the Darjeeling tea gardens the tea planters were inspired to start tea cultivation in the Terai regions during the 1860’s. Champta was the first tea garden in the Terai regions set up in 1862 by James White. It was during this time that Dooars attracted their attention for tea plantation immediately after Darjeeling hills as the climate of this area was favourable for tea growing. The introduction of the tea plantation enterprise in the
district was an extension of the cultivation and the manufacture of tea in other places of north-east India. That the Duars had considerable potential as a tea growing area was noted as early as 1859, that is several years before the annexation of the Duars. Tea planting was extended to the Dooars, the land east of Teesta connecting Assam with West Bengal, Gazoldhoba/Gazeldhibi being the first Dooars tea garden in 1874. The pioneer of the tea industry in the Dooars region was Mr R.Haughton according to District Gazetteer and Grunning’s report. The District record shows that Mr H.P.Brougham took the first lease of Gazoldhoba for 996 acres employing Richard Houghton as his manager of the Gazoldhoba garden.

Surveying the geographical location of Dooars it was found that Dooars was a strip of land situated at the foot of the Himalayas and to the east of river Teesta was annexed from Bhutan in 1865. The name dooar means door or pass and there were 18 such passes. The western dooars was between the river Sankos and Teesta and were included in the Jalpaiguri district of Bengal. To the east of river Sankos is included in Assam and was known as eastern Dooars. The land initially was unattractive for tea planters as the district other than being famous for malaria and blackwater fever was also traversed from north to south with innumerable rivers and streams that
changed courses often during the rainy season. The area was covered by impenetrable jungle containing unexploited timber giving shelter to wild beasts inhabited by primitive tribes such as Garos, Mechis, Totos.

This particular thesis covered the tea plantation in the Duars region that mainly falls under the district of Jalpaiguri and the impact it had undergone economically, geographically, socially and culturally under the colonial economy. It is to be noted that right from introduction and expansion of tea plantation in district of Jalpaiguri, the industry continued unhindered producing to meet the up surging demand for tea in the international market.

The introduction and growth of the tea plantation enterprise in the district of Jalpaiguri, as in Assam, took place with the active assistance of the colonial state and were not the products of operation of the indigenous economic forces but of exogenous developments and requirements of the imperial order. It was geared to a demand abroad for an exotic drink. Earnings from tea export along with those from other major Indian exports played a critical role in Britain’s international trade and capital flow relations and in the maintenance of the British imperial system. The late nineteenth and early twentieth centuries saw phenomenal growth of tea plantation enterprise but this was essentially in the nature of creation and consolidation of an enclave
economy which failed to generate any broad-based and dynamic transformation process. This was not however not a unique feature of the Jalpaiguri tea plantation system but typical of all plantation economies and systems.

The Dooars region was annexed from Bhutan in November 1864 and Jalpaiguri district was formed in 1869. The wastelands act (1874) came into being which facilitated the growth of tea gardens in the Dooars region. According to the said act the land used for tea gardens were almost exempted from land revenue. It is noted that lands leased out for tea cultivation followed the new Wastelands Rules issued by the Government of West Bengal in 1896 which is still in force. Thereafter a Thirty Years lease was granted. By 1906-1907 all the marked wastelands became occupied and the joteland or land for rice cultivation began to come under tea plantation. This practice continued till 1930 and nearly 150 tea gardens were established at Jalpaiguri.

The late nineteenth and early twentieth centuries witnessed a steady and systematic extension of British administration and control. The colonial authority assumed the responsibility for the maintenance of law and order and intervened vigorously whenever it considered that there was any threat
to the existing order. Changes were also introduced in the agrarian system prevailing in the tract annexed from Bhutan by resorting to periodic measurements of land and re-assessment of revenue. All this promoted the expansion of the tea plantation system which was launched under the aegis of the British planters. In the tea plantation areas, the European planters and their assistants in combination with their Indian counterparts began to exercise power and control. Migration of the labourers were also organized by the planters and kept under control. Thus the growing intervention of the colonial state came to have a deep and far reaching impact on the economy and society in Jalpaiguri district.

In the Duars region there was almost six times increase of population between 1872-1921. This rise in population was due to massive migration of labour into the tea gardens. The population of Jalpaiguri district came to be composed of large number of immigrants. The change was due to the large scale migration of tribal peasants particularly the Oraon, Munda and Santal peasants from Chotanagpur and Santal Parganas to the tea gardens. The society became composed of diverse social groups belonging to different ethnic, linguistic and cultural groups, to various castes and religious communities. Thus the change over from a closed cultural system to an open
one raised the issue of ‘identity crisis’ that they face now. Thus a probe into the matter is essentially required.

In their homelands these tribal people belonged to peasant communities. Their agriculture was closely linked with magico-religious practices. Despite considerable differences between the different tribal groups, these communities had social customs, cultural traditions and religious beliefs which were similar in many respects. A powerful community bond existed between these groups.

Following the penetration of the British rule in the second half of the eighteenth century and the consequent socio-economic changes, their economy, livelihood and social life became severely dislocated. A series of tribal uprisings were witnessed against the British and the Indians who were also exploiting and oppressing their interests. The tribal peasants were pushed out of their traditional habitat. The effects of permanent settlement resulted in landless cultivators. It was noticed that the population of this tribal people were increasing every year. They were in great demand by the tea planters for they were industrious, persevering and stood the climate well than the original inhabitants. These tribals were considered by the district officials as eminently suitable for clearing of wild infested jungles,
reclamation of wastelands and extension of cultivation in the Duars. Moreover the large forest areas and hilly tracts of the Duars area that were initially inhabited by the tribals and aboriginals failed to supply the demands of the upsurging economy. This took the form of huge migration fostered and organized by the tea planters of Assam and the two northern districts of Bengal under the direct protection of the colonial state.

Till 1859 companies and private owners attempted to bring outside labour through their agents, but the large number required to man the expanding industry made systematic and organized recruitment necessary. The Tea Planters Association was formed in 1859 for this purpose. The Planters Association did nothing to prevent the manager of one garden from enticing away and taking the coolies of another garden. Representations were made from time to time asking the Government to pass a short Act where the coolies could be compelled to remain in the garden from which they have been engaged, instead of moving on to new gardens. But the cooly could free himself from all advances by simply going to some other garden in the district which was a frequent occurrence. For all these problems there was no legal practicable protection for the planter. The District Planters
Association only thought of “mutual agreement” binding on all the gardens. But this remedy failed because it failed to work successfully among the planters of different gardens due to different interests. Moreover there were no penal laws to back the “mutual agreements”. Thus a short Labour Act was required to bind the coolies for a certain period to a particular garden.

It was not until the end of the nineteenth century that any concerted action to deal with it was taken. The first move was taken in the Dooars. In 1889 some set of rules was provided. The coolies leaving one estate for another without permission was to be turned back to the previous estate, on the request of the manager. The coolies who were not indebted to their estates could avail discharge certificate for seeking employment in any other estate only during the month of November and December.

Thus on 1\textsuperscript{st} May 1900 a much simplified set of rules came into force. The most interesting provision of the rules was that if an indebted coolie left one estate for another, the receiving estate on demand either could turn out the coolie or had to pay the original estate the money due by the coolie. The second provision was that if the recruiter sent to a recruiting district by one estate, returned to a different estate either alone or with other recruits, the second estate should turn out the recruiter and the accompanying coolies, or
recoup the original estate for the recruiting expenditure incurred and for any advances given. Sixty five percent of gardens in the membership of the Dooars Planters Association signed the agreement. The rules remained in this form until they were revised in 1908. The new rules in the main reproduced the older rules.

But in spite of all these rules the problem of enticement did not vanish away from the scenario as references were found in the Association’s correspondence in the early twenties. This suggested that labour scarcity was an existing problem in this region.

Thus the labourers in the Dooars was always ‘free’ in the sense that the labourer was not placed under any kind of contract and could leave whenever he pleased. The method of recruitment adopted in the garden of Duars differed from that adopted by the planters in Assam. The Duars labourers were ‘free’ in the sense that they were not indentured labourers subject to penal measures.

But at the same time it may be considered that the Duars tea garden labourer was not free from coercive methods of labour control. There was enough evidence to proof that considerable coercion, direct as well as indirect, and
sometimes outright terrorization techniques were used by the planters and their agents in procuring labour, putting them to work and keeping them under control. The materials available make it clear that the Duars plantation labour was wage labour put under various types of non-economic constraints which severely restricted the mobility of labour and it turned out as ‘labour held in bondage in a free market’.

At the end of the First World War, certain difficulties were witnessed. Bihar and Orissa in 1918-19 experienced severe famine together with the disastrous influenza epidemic which eliminated the surplus population from that region. For the same reason many tea garden labourers inherited their ancestral land and returned home to cultivate it. In the meantime the acreage under tea in the Dooars had risen by eleven per cent, while industry in general had expanded considerably and the new industries were now competing with tea for the diminished supply of potential recruits. Moreover with the termination of the Assam penal contract there by offering generous term to the laborers and the growing mobility of the poorer classes in India tended to attract labour to Assam which might have gone to the Dooars. All these problems compelled the gardens of the Dooars region to widen their recruiting field. The gardens that were under the Tea Districts Labour
Association had less difficulty in recruiting labourers than the gardens which recruited individually. They found the recruitment a very expensive operation. Thus a central organization for recruiting became necessary in the Dooars region. In 1924 ultimately it was decided that the Dooars should recruit through the Tea Districts Labour Association controlled by a voluntary board, consisting of four representatives from Calcutta, two from the Dooars Planter Association, and one from Assam.

Regarding the payment system of the tea garden labourers in the Dooars region the wages were based on a principle not very different from that of the older system in Assam. A certain task was laid down for field workers which had to be completed by average labourer within three hours. If the manager needed more work from the labourer it was known as *doubli*, and in busy periods the labourer might even perform two or three *doublis*. The recommendation of the Indian Tea Association for substitution of the unit system in the Dooars region could not be implemented as the planters here were by nature conservative.

According to the Royal Commission on Labour with the rapid increase in the cost of living, the planter preferred not to increase the wages, but to decrease the task by introducing a system of a second and even a third hazri.
Labourers in number of Dooars garden worked under a sardar, who in addition to a monthly wage received a commission of one pice for each hazri worked by his men. According to the Royal Commission ‘in a number of gardens the wages were paid in a lump sum to the sardar who in turn pays the individual labourer. This system was disapproved by the Commission since it often led to abuses on the labourer when he was debt to the sardar.

There were indications of labour suffering from malnutrition in the region of Dooars. This was mainly due to scarcity and high price of foodstuffs other than rice. Thus in addition to concession in rice, foodstuffs like pulses, mustard oil, salt, gur were supplied at half cost price. Vegetables were grown at gardens for the benefit of their labourers.

After the Second World War a scientific study was done about the needs and cost of living of tea garden labourer in order to know the adequacy of the wage rates. The Rege Committee which was appointed for this purpose only contented itself by recording the earnings and concessions enjoyed by the labourer, stating that wages were inadequate. An interim wage increase was carried out in 1947 and it was stated that no further wage increase would be granted until a proper investigation was carried out relating to the living standard of the tea garden labourers. In the meantime the government
appointed S.R. Deshpande to examine the matter. The Deshpande Report was not published until 1948 and there were no changes in the wage rates in 1947. Only there was an increase in the earnings of plucking by twenty five percent in the gardens under Indian Tea Association.

It was found that Deshpande’s view was more realistic as more importance was given to the family and not an individual as the earning unit in the tea garden. He took a balanced view of the gap between theoretical estimates of dietetic needs and the general practice in the country and arrived at a scale of workers needs.

Thus keeping in term with the Deshpande Report the post-war-wage fixation in the region of Dooars underwent a change. There was increase in dearness allowance of three and half annas per day for adults and two annas for minors in the Dooars.

The condition of the labourers in the tea garden was poor. They were put in a concentration camp like situation. Physical coercion, beatings, flogging were quite common. Incidents of death from physical torture were not unknown. There are unrecorded accounts of troublesome workers being
thrown into furnaces of garden factories. For all this the managers enjoyed support of the colonial authority.

The labour system which included recruitment from a long distance, the separation of workers from their known environment, their total isolation from their proximate surroundings because of geographical location, ethnic, social, cultural and language distances and barriers, and various forms of open as well as concealed compulsion in organizing migration-made the workers particularly vulnerable to violence and coercion. Moreover the Duars plantation area was a non-regulation tract which meant that many of the ordinary laws and regulations were not in force in the area. This administrative feature gave virtually unlimited powers to the planters.

Various measures were resorted to bring the labourer under control. Plots of land were given to the labourers, who were land hungry dispossessed tribal peasants, for the purpose of cultivation either free or with a nominal rent for binding them to the tea garden. Hats or weekly/bi-weekly markets were also arranged which were one of the modes of control over the labourers.

The set of Labour Rules worked out by the DPA in 1905 was another method to control the movement of labour from one garden to garden.
Gardens enticing labourers from other gardens were bound to reimburse the losing gardens the expenses it had incurred on bringing a worker to the Duars and the money it had advanced to the labourer. To keep the labourers under firm control the European planters organized and maintained a private coercive machinery, the North Bengal Mounted Rifles (NBMR). Thus the planters by improvising various methods were able to keep the labourers to the garden and virtually hold them in a state of captivity.

There was no law and no government supervision in the matter of emigration to the Duars, wages, tasks and general management of the estates. The Dooars Labour Act passed in 1912 was only concerned with government inspection only in the matters of sanitation and public health. The high incidence of sickness resulting in absenteeism and heavy death toll among the workers due to various diseases like malaria and blackwater fever prompted the enactment. The *sahibs* often fell prey to these diseases and so measures were taken by them to control these.

The other elements which tied the labourers mobility became restricted were the housing tied to the employment, allotment of tiny plots of land, part payment in rice, ties of indebtedness and personal dependency relations put severe restrictions on the mobility of the labourers. The position of the
labourers were turned to semi servile status and the labour market became infested with various methods of coercion. Even the non working hours were under the control of the planters.

The wage rate came to be fixed at a level that would provide subsistence to a single worker but not his whole family. This forced the female and the child to join labour and make earnings. Still the earnings of the family were so low which forced the family to take up work outside the plantation. They usually did so by cultivating its staple food like rice on the tiny plot allotted to them. This involved a lengthening of the working hour and re-peasantization of wage labour in the plantations.

Though there was 66 percent rise in the price of rice, wheat, the staple food of the tea garden labourers, between the years 1893-1908 the wages of the workers remained unchanged. The official reports of as late as 1946 or 1948 admitted that the houses made of bamboos with thatched roofs and sides were nothing but hovels with insufficient light and air, and sanitations had no standard worth mentioning. Indian doctors were not qualified and European doctors were not available for treating coolies and any regular hospital did not exist.
Thus the labourers were strictly controlled, poorly paid, illiterate, malnourished and diseased. The involuntary nature of work, the hard toil, the meagre wages and the sub-human living conditions deterred the local people from seeking work in the tea gardens. It was witnessed that the government was not aware with the results of the rapid extension of tea industry by clearing vast tracts of jungle. The results were carefully studied by the Commissioners of 1868 and they tried to throw light on the incidence of mortality in the early days of the industry. It was found that fevers, dysentery, ulcers and cholera were the common fatal diseases. The unfavorable climatic conditions existing in the tea gardens were taken as the main causes for these diseases.

The extensive soil disturbance caused by expansion of tea industry was one of the causes for outbreak of malaria. It was found that the disease was caused during the course of railway, road or canal construction involving employment of number of labourers. The increase of puddles in course of excavation led to an enormous increase in the breeding grounds of the Anopheles mosquito leading to outbreaks of malaria in epidemic form. Added to this were large and mixed populations of workers who were massed together under unhygienic condition. So throughout the Duars, as a
direct result of its numerous labour camps, with their shifting population of mixed character, there was a prevalence of malarial infection only met with epidemic manifestations of the disease.

It was only in 1930 that the first enquiry about the labour was conducted by Royal Commission on Labour. This Commission undertook a survey in all the Tea districts and made certain recommendations about regulating conditions for employment and recruitment of labour. After this the next important enquiry carried out in this field was by D.V. Rege in the year 1943-1945. On the basis of these reports the subsequent Labour Legislations was formed.

The Royal Commission criticized the medical and health arrangements in the industry on the grounds that there was no co-ordination or interchange of ideas between different gardens, industry and the Government. A proposal was made for the establishment of a Health Board, financed by a cess and empowered to issue regulations with regard to provision of health and medical facilities. But this proposal was not implemented and in the following years progress depended on the voluntary actions taken on the behalf of the companies. As the industry at this time was health conscious the progress was rapid. The Plantation Labour Rules enforced proper
arrangements for pure water supply in all the estates. The water supply in the tea gardens in the Dooars region improved after this. It was not before 1947 that constructive plans for housing of the tea garden labourers were undertaken.

The Government in the nineteenth century till the early twentieth century took no initiative to impart education in the tea gardens of Jalpaiguri district. There were very few planters who out of self enthusiasm organized primary schools. Most of the planters felt that education would result in population unsuitable for working in the tea gardens. On the other hand the labourers themselves regarded the earnings of the children were of great value than providing them with education. So they also took no steps to initiate educational facilities in the tea gardens. In 1930 the Director of Public Instruction, Bengal suggested that every garden should have schools and collected report accordingly. In Dooars all the schools of the gardens came under the purview of the District School Board, Jalpaiguri. So the desirability of the managers played an important role in the aspect of welfare of the workers in the tea garden which varied from garden to garden.

Thus after the Second World War the representatives of Indian Tea Association felt the necessity of a central plantation code comprehending all
labour legislation in force on tea gardens. The proposal was accepted at the first meeting of the Industrial Committee on Plantations in January 1947. In 1948 Conference a draft Bill similar to the Factories Act was circulated. The Central Government went ahead with the Bill in the form of draft and the Plantation Labour Bill was passed into Law in the year 1951.

Behind the rise of the trade union movement in the tea gardens the Bengal Assam Rail Road Worker’s Union played an important role. The members of this Association secretly kept in touch with the labourers of the tea garden. They were at last successful in forming an association of the labourers of the tea garden in protest against the oppression of the planters. ‘Jalpaiguri Cha Bagan Mojdur Union’ was formed. The unions of Sungachi, Tunabari of Malbajar region, Lakhipara, Red Bank, Dalpara, Diana(Banarhat) and Danguajhar near Jalpaiguri town were found to be more active. To note these unions were all near the rail junctions. Slogans like ‘Hamara mung dena hoga’, ‘bilati malik London bhago,’ ‘inclub jindabad’, were often used by the tea workers.

From 1946 onwards the tea gardens of Jalpiguri witnessed the birth of various trade unions. At Alipuarduar in 1946 under the initiative of R.S.P the
United Trade Union Congress different associations were formed in the tea gardens of Jalpaiguri. They raised their voices against the low wages, revive and reform the job agreements, to maintain equality in all the gardens in regard to privileges granted to the workers. Nine gardens under the Shaw Wallace company at Alipurduar protested against the less distribution of ration rice leading to strikes in those gardens. The Jalpaiguri district Chabagan Majdur Union presented their demands to the Labour Commission. The demands were increase in wages, good living condition and better medical facilities. The other two important unions formed at this time were ‘The Gorkha League’ and ‘Congress Socialist Party’.

Inspite of all this developments it was noticed that the orderly progress of the unions in the tea regions of Jalpaiguri district was hampered by the absence of sound, active and political leaders. In the meantime the Congress wanted to establish their union in the tea gardens of this district with the prior permission of Dooars Planters Association and Indian Tea Planters Association. The planters in order to balance the Communist movement which was becoming very intense in the tea gardens began to encourage the Congress to form unions in their plantation region. Thus the unity of the labour movement in the tea regions was hampered. The initial splits lead to
more splits like AITUC, INTUC, CITU, UTUC resulting in multiplicity of unions. It was not until 1955, after a period of general unrest and violence the Indian Tea Association gave recognition to the Dooars unions.

There was a revolutionary change in the use of natural resources after the coming of the Europeans into India. In order to furnish raw materials for their economy the British began to impose higher levels of demands on the natural resources of the country. They began to encroach vast resources as government property that earlier were owned communally. The result was complete depletion of resources through commercial exploitation leading to the collapse of the natural resource base sustaining many components of the Indian society. This led to the change in engagement of the population from subsistence gathering and the production of food. They now became engaged in manufacturing, transporting and using resources as commodities. This resulted in weakening the bonds of cooperation and dependence between the local communities that they enjoyed earlier. The possibility in the unlimited consumption of resources in an unrestrained manner by the individuals also increased. All this resulted in the initiation of conflict in ways of life and culture of the effected population.
The degradation of the environment is the outcome of a number of processes. Some of them are natural while the rest embraces historical, social, economic and various other voluntary operations that are intimately related to human manifestations. During the subsequent era of European colonization and mercantile conquest, man induced environmental hazards surreptitiously engulfed the countries of Asia and Africa. Introduction of different types of plantation crop in the virgin forests has paid high dividends to the colonial power. But such act has taken its toll, in turn, in the forms of accelerated soil erosion, interrupted biodiversity, spread of epidemic and disease etc.

An assessment was therefore required from the environmental perspective. The present research was an endeavour in this regard. This research work intended to provide the ‘missing link’ between the history of tea plantation in the district of Jalpaiguri, West Bengal and on the other deal with the ecological changes from social, cultural, political and economic perspective that the place went through covering the period from 1860-1947. The cultivation of tea on a commercial scale was done at the expense of the virgin forests abounding the area. The setting up of tea industry thus
changed not only the landscape but also the demography and socio-economic pattern of the district considerably.

The first penetration of the capitalist enterprise in the Duars in the form of tea plantations in 1874 witnessed the rapid extension of the tea plantations and large growth of tea garden labour force in the nineteenth century. This was followed with the extension of roads, railway and communications. All this provided the stimulus for commercialization of Jalpaiguri’s subsistence-oriented agriculture and for extension of cultivation and reclamation of land. In consequence, in late 1870’s and throughout the 1880’s and 1890’s clearing of jungles and reclamation of land for ordinary cultivation as well as for plantation made rapid progress. By the turn of the century large parts of the Duars changed from jungle wastelands with little human habitation into cultivated area and growing settlements. Thus Jalpaiguri’s subsistence-oriented agricultural economy and society became increasingly integrated with the British Indian market and wider colonial economy.

The history of the Duars tea plantation enterprise, which cannot be separated from that of Assam enterprise and the international economic network, can for the period up to 1929 be broadly divided into four phases. The entire period from 1874 to 1896 was one of remarkable expansion in terms of
acreage under tea and production. However in 1897 the industry faced a severe depression caused partly by the speculative mentality that had seized it. The depression lasted for several years. A recovery began only after 1907 or so which continued till the outbreak of the World War. There was once slowing down during the war years, but activities again revived from 1917. This phase which eventually turned out as the last phase of extension continued till the end of the 1920’s. In 1931 the number of tea estates in Jalpaiguri district reached 151. Of these, 143 gardens were situated in the Duars and the remaining 8 were located on the western side of the river Tista near the town of Jalpaiguri.

After conducting survey of some of the tea gardens in the district of the Jalpaiguri district like the Duncans tea garden at Birpara, Kilcott tea garden, Patharjhora tea estate, Diana tea garden the general find was that area of the mentioned tea gardens had increased from time to time which suggest large scale clearance of virgin forests, thus disrupting the ecological balance of the area.

The tea industry had increased so much in recent years as to change almost completely the physical characteristics of the submountain country over a great area of 30 miles long extended from the debouchment of the Tista from
the Darjeeling hills to a similar point of the Diana river on the frontier of Bhutan. The greater part of the primeval forest has disappeared and mile after mile has been replaced by great expanses of tea garden. East of Diana a similar track stretches for about the same distance as far as Rajabhatkhawa Reserve Forest and north of Alipur.

The area under tea nearly doubled between 1892 from 818 acres consisting of 13 tea gardens to 235 gardens with an area of 119 square miles in 1901 while after this period the extension of cultivation has been comparatively slow. This apparent decrease in the number of gardens is due to the fact that the figures represent the number of grants or temporarily settled estates.

The process of deforestation in the tea gardens of the Jalpaiguri district had its effect on the climate of the region. The process of deforestation and the climatic changes though slow and gradual, the impact was also felt slowly through the ages. It has been found that the climate of Jalpaiguri district had undergone a change in the last hundred years. The intensity of rainfall had increased 2-3 times. At the same time the duration of the rainy season had also decreased. The approximate moisture content in the air yearly had also decreased to 14 percent in the tea garden area of the Duars region while around the Jalpaiguri town the decrease was 9 percent. The setting up of tea
industry followed by urbanization had lead to an increase of 10 percent of Carbon –Dioxide in the air from the year 1860-1970. This has resulted in the increase of temperature in this region.

The climatic change in this district had its effect on the surrounding living organisms. The forest of this district was also affected because of decrease in moisture in the air and irregular rainfall. The aridity of the soil had increased and the level of underground water had also fallen. This has resulted in loss of various kind of trees as well as animal species that had been there from the very beginning.

Moreover the massive clearings of the forest for the tea plantation also set in the process of soil erosion on an accelerated scale which occurred in the region of Duars. The new plantations in the Dooars region on the steep inward facing escarpments of rivers caused further slope destabilization and attendant environmental hazards. The process has been augmented in several occasions by the very nature of the root of tea plants

The Duars region were interspersed by many turbulent hill streams. Large scale deforestation in Bhutan and Jhoom cultivation caused a lot of landslips, and the rivers coming down with enormous force during heavy
precipitation in the hills, and carrying enormous amount of debris, started causing devastation around the 20th century. Gradually there were rise in the river beds leading to floods in this region. Though boulder protection was done, the on rush of waters was so high that the rivers often changed their course and destroyed fertile lands by depositing silt.

Thus the clearance of forest regions had its effect on the water cycle and is very much related with the flood problems of Jalpaiguri district. It has been learnt that with the development of communication system in this region for facilitating the growth of tea industry in this region the process of ecological imbalance was initiated. This was followed by settling of human habitation and growth of towns leading to indiscriminate use of forest resources. Two – third of forest were cleared within a span of hundred years.

This resulted in the decrease in the depth of the river beds of Tista, Torsa and Jaldhaka rivers for the last 100 years. So these rivers either fails to store or drain away excess water when there is excessive rain and thus have no role to play in controlling the flood of the region. With the passage of time, the condition in the upper catchment of the Tista was so adversely changed that the bed of the river Tista started rising alarmingly. The water level of the river Tista still now remains almost above the general ground level of
Jalpaiguri town during monsoon and hardly comes below the general level of Jalpaiguri town even during the dry season. This high level of the river Tista at the outfall point of the river Karala has greatly affected the normal discharging capability of the Karala. The ruling level of the Tista at the outfall point being high, the discharge cannot make its way in to the Tista; on the contrary, it starts heading up submerging parts of Jalpaiguri town. This submergence increases alarmingly when the flood in the river Karala synchronizes with the flood in the Tista which became very common. The main town thus gets flooded paralyzing the normal activities of life.

There were serious floods caused by the swelling of the river Tista in 1881 and 1892. The flood in 1902 was confined to the basin of the Tista river and was caused by incessant rain in the Darjeeling hills and Jalpaiguri district. Consequently, Tista reached a height of 18 inches above the highest flood level of the preceding ten years. In 1906, the floods were extensive and covered almost the district. Heavy and continuous rain fell in July and in the same month 40.50 inches of rainfall was registered in Jalpaiguri. In the past the floods were caused by sudden downpours of rain lasting a short time, while the feature of 1906 was the long succession of rainy and sunless days.
Rivers and streams in the district rose simultaneously and damage done to railways and roads was enormous.

The gradual deforestation, increase of tea plantation industry in this region and the growth of township had its effects on the flow and the routes of the rivers that had increased the possibility of occurrence of floods in this region. It has been found that the low lying lands in the surrounding region play an important role in storing excess rain water but utilization of these lands for cultivation and plantation instead had lead to floods.

In the last few decades Duar grassland and chaurs, which where abode of several animals, had decreased due to increase in cultivation area, expansion of tea estates and human habitation. These chaurs and swamps were important habitat of wild buffalo, Gharial, Swamp deer (Barasingha) and pink headed duck which became extinct in this region as a result of human interference in nature. In the early thirties, the fauna of the savannah forests of Chilapata and Malangi areas of Buxa reserves was facing extinction owing to the extension of tea gardens and the shrinkage of the grasslands. Certain important areas were declared as Wild Life sanctuaries around 1940 to preserve the rich diversity of flora and fauna in Gorumara, Chapramari
and Jaldapara reserves. This was a move to save the endangered species and stop poaching of animals.

The infiltration of elephants in tea gardens and its surrounding villages has been a common phenomenon in the recent past years. The causes can be traced back from the past. Due to fragmentation of forests, the elephants are forced to move in between the tea estates and villages thereby causing damage to field crops. The leopards also enter the habitat areas in search of food. On an average 50 persons are killed every year by wild animals, especially at the time of monsoon and crop harvest. The fragmentation of forests and heavy biotic pressure on elephant habitat are the main reasons for this burning problem.

Pest control was an important cultural practice in tea plantations. Extensive use of artificial fertilizers for increasing production proved to be feverish for the soils. Random use of the pesticides for the protection of the plants pollutes various components of our eco-systems and cause fatal effects on the life systems. Proper scientific agro-practices was almost absent and was not adopted in these regions. Natural fertilizers were not used and for pest control. Malathine, aldrine, sulphur, lindane, perenox, cuprokyt, blitox are the chemical fertilizers used in tea gardens. In spite of the fact that these
chemicals ensured better yield of tea, yet the washed out residues of these
pesticides contaminate water to various extent. Thus people living nearby tea
gardens, therefore, ran a risk of health hazard and were often infected with
water borne diseases like black water fever and diaphorea.

The livelihood of the habitants in the Duars region also underwent a change
with the establishment of the tea gardens. The region was the habitats of
Koch, Mech, Rava, Toto, Garo, Tharu, Bhutia, Lepcha, Rajbanshis. Their
livelihood mainly depended on forests, Jhum and shifting cultivation and
handicrafts. They were also migratory and were engaged in hunting and
Gleeling. Their lifestyle was sedentary and their production was limited. The
forest products were considered to be the property of the community. Either
the land or the produce of the forest were considered to be non-saleable
products. Reciprocal exchange of labour existed. The village was Mono-
ethnic that is a village constituted of a single tribe. With the coming of the
British the tribal chief or the religion head of that particular tribe had the
responsibility to collect the Capitation Tax of that particular village and
handover it to the government representative. Free labour was accessed from
these villages at a certain time of the year. But after the migration of
different type of population in this region in order to meet the supply of
labour force in the newly established tea gardens, a change was witnessed
where they got involved in planned cultivation to supply to the needs of the
increasing population.

Different types of crops, vegetables and cotton began to be cultivated in a
planned manner. Very few tribes especially the Mech stuck to their earlier
occupation like weaving. The Ravas still could confine themselves in the
forest area and the Tharu’s, Garos, Totos, Dhimals and the Bhutias declined
in number.

Another mode of disturbing the existing ecology initiated by the British was
the ‘fierce onslaught’ of subcontinent’s forest needed for tea plantation. The
revenue orientation of colonial land policy also worked towards the
denudation of forests. This process greatly increased with the building of
railway network around 1853. The result was felling of large number of
trees, needed in the making of railway sleepers, under no supervision. As
commercial demand increased, the protected areas were being gradually
converted into reserved forests by the colonial rulers for exercising fuller
control. The process found its support with the passing of Forest act of 1878.
Thus many original inhabitants of the forest were uprooted from their land
and livelihood leading to the birth of landless, unemployed population.
The change over of livelihood from simple forest dwelling to class of labourers supplying to the demands of commercial market had its impact on their existing culture, society and notion of life. With the collapse of the resource base, there was replacement of old systems of barter by money economy that destroyed the traditional relationships among the various tribes. The disruption of traditional social forms resulted from the drastic changes in modes of production introduced by modern technology had its effect on the family. The extended families with their type of social security gave away to nuclear families.

The rites and rituals observed by different tribes earlier lost its importance. Previously the rituals were hunting and *dushera, jitia, karam, sohorai* lost its importance after these tribes immigrated in the tea plantation area of Jalpaiguri. The structures of authority also changed to literate entrepreneurs from village elders. The strength of collective self-help gave away to the weakness of dependence on urban-based aid and external development agencies. It can be mentioned here that all was not perfect in the ancient social forms but the ‘good’ in traditional societies was rejected along with the ‘bad’ and that modernization was not necessarily conducive to social
harmony and individual peace. There was also decline in the moral values of life.

The religion of the population also underwent change. Before they were primarily animist that is they believed and worshipped in all kind of life forms. They had their own pantheon of Gods and traditional ritual practices. But later we find that there was change in their religion and thinking. The Oraons, Mudas and Hos who were not converted to Christianity, were divided between Hinduized and not yet Hinduized sections. The Hinduized sections usually described themselves as Madhesiyas and spoke Sadri or Sadani as mother tongue, synchronically identified their Gods and Goddess with Puranic Hindu gods and goddess and worshiped these goddess as well as their own. They were influenced by the religion brought in by the colonial rulers that is Christianity. The Church Missionary Society was the earliest Christian mission to start work among the rural people especially among the immigrant tea-garden labourers in Alipur Duar subdivision. The society started its evangelical and social service work time in the eighties of the last century. They converted a good number of Santals to Christianity within a short time. The largest number of Christians were found among the Oraons and then in descending order among the Mudas, Hos, Bhutias, Meches and
Santals. In 1896, a church was established in Jalpaiguri town for the native Christians. Thus majority of the population got themselves converted to these religions though they retained certain earlier practices and beliefs of their original religion. Thus the ecological changes initiated the process of cultural change and continuity in the tea plantation in the Duars region of Jalpaiguri district.

The linguistic picture of the district also underwent a change. The Koches and Meches who largely spoke the language of the Bodo group of the Tibeto-Burman family began to speak in Bengali and developed a distinct dialect of Bengali. With the opening of the tea gardens from the middle of the nineteenth century, large number of Dravidian speaking Oraons and Austric speaking Mundas and Santals began to immigrate into and settle in the district. In the course of time Oraon, Munda and Santal became demographically significant languages of the district. A common dialect for communication developed for these speakers resorted to a dialect of Hindi or Bengali known as Sadri or Sadani or Madhesi. In course of time the dialect became a demographically significant mother tongue.

A new development for settlement and cultivation for the new immigrants were the forest villages around the tea plantation area. Under the provisions
of the 1878 act, each family of ‘rightholders’ was allowed a specific quantum of timber and fuel, while the sale or barter of forest produce was strictly prohibited. This exclusion from forest management was, therefore, both physical as it denied or restricted access to forest and pasture as well as social as it allowed ‘rightholders’ only a marginal and inflexible claim on the produce of the forests. Thus there was decline in traditional conservation and management systems around the forest. The loss of forests and pastures, earlier communally owned and managed, severely undermined the subsistence economy of the peasant. The British land policy worked towards the increasing differentiation of the peasantry and the decline of communal institutions. Thus the colonial state redefined property rights, imposing on the forest a system of management and control whose priorities sharply conflicted with earlier systems of local use and control. The colonial forestry marked an ecological, economic and political watershed in Indian colonial history.

The tea plantation in the Duars region also indirectly contributed to the decline of various forms of artisanal industry that were practiced by various groups of tribes residing near the plantation area and the surrounding forest. This was because the state forest management imposed restrictions in
accessing traditional sources of raw material. Thus discontent spread among this particular population in losing their subsidiary source of income resulting in the rise of new forms of social conflict. The withdrawal of existing sources of raw material and the competition from machine made foreign goods lead to the decline in the artisanal industry.

The take over of large areas of forest by the state and the expansion of the plantation and agricultural frontier posed a continuous threat to both hunter-gatherers and their natural environment. The hunter-gatherers lost control over their means of subsistence. They lived at the ‘reserved forest’ under the mercy of the forest department and due to ecological changes also were forced to new adaptive strategies like sale of small animals, honey and plants to nearby markets.

With the control of the tea gardens by the British, a distinctive feature of the Duars enterprise was the emergence of a small but growing core of Indian entrepreneurship, mainly by the Bengalis. This feature was absent in the plantations of Assam and Darjeeling. After surveying the history of the tea gardens of Jalpaiguri district it can be said that the year 1879 is the landmark in tea history as the first Indian managed tea company in Bengal which was formed by a few enterprising Bengali lawyers and clerks in Jalpaiguri. As
the political power during this time was concentrated in the hands of the British and the tea market being controlled by them, the Bengali entrepreneurs faced difficulty to establish themselves in this sphere. Initially the Bengali entrepreneurs were lacking in finance and know how. There was no bank to finance them. In spite of this the first Indian joint stock company of Jalpaiguri, viz, Jalpaiguri Tea Co Ltd, which was a purely Indian concern was started in 29\textsuperscript{th} May 1879 with a capital of Rs 50,000 divided into 200 shares of Rs. 250/- each. The idea came from Sri Bhagaban Bose, a Bengali Deputy Magistrate then posted at Jalpaiguri. The company secured from the government a plot of forest land in Banarhat in Western Duars, called Mogulkata, cleared of the trees and started tea cultivation. This tea garden later developed into a big tea estate. It was the usual practice that a single applicant after getting tea lease would transform it into a company which was administered by a management house.

The high watermark of Indian entrepreneurship in the Duars was a period which roughly stretched from 1910 till about 1930. By the latter year the Indian entrepreneurs came to own 47 gardens in Jalpaiguri district and about 37 percent of the total capital (Rs 73,88,029 out of Rs 2,00,67,579) invested in the tea industry in the district.
The Jalpaiguri tea planters felt the need for formation of an association to look after their interest as the Dooars Planters Association of the English planters refused to give equal rights to Indian planters. This resulted in the formation of the Indian Tea Planters Association in 1919.

The difficulties faced by the Indian planters were compounded by the tight control that the British had over practically all the vital areas of tea industry and business, such as labour supply, allotment of railway wagons, coal supply, stores movement, carriage of tea, auctions, warehousing, tea tasting and broking, procurement of machinery and supply of tea chests. A systematic discrimination was thus practiced against the Indian planters putting them in difficult position. Thus the political, social and economic environment was highly unfavourable for the growth of Indian entrepreneurship in the Jalpaiguri plantation enterprise.

The gradual domination of Indian tea in the world market was witnessed in Britain and the predominance of Chinese tea was on decline. Britain began to import more tea from India and Sri Lanka than from China. The expansion of tea plantation in Jalpaiguri district continued unhindered till 1930 as the International Tea Agreement was made during this time.
On the whole the industry went through considerable prosperity. In the opening years of the century the dividends of the Duars gardens were moderate. But in 1909 the average dividends reached 17 percent. In the second decade, particularly in the war years the expansion was limited. But the industry reaped high profits. In 1915 the dividends averaged as high as 47 percent and many of these dividends were tax free. After some decline in profits and dividends in the last year of the decade, a recovery took place in the 1920’s and for most part of the third decade the profits and dividends remained quite high.

The global depression of the 1930’s hit the tea industry rapidly. In India the wholesale price index for tea dropped by 53 percent in four years. The planters reduced production by firing many plantation workers. This resulted in unemployed group of workers. Some returned to their homes in the west while most of them moved to the adjacent government forest land as squatters, growing crops in clumsy imitation of local shifting cultivation. In their desperation they damaged forest and soil cover. By 1933 the industry created an international system to regulate and, when necessary, limit production which assured profitability by 1934. The International Tea Committee and International tea Market Expansion Board were set up in 1933, and the Tea Control Act was passed by the Government of India.
Crawford who piloted these measures from Calcutta on behalf of Indian industry was effectively supported by Indian Tea Planters’ Association.

The British government controlled all tea production and consumption from 1940 onward, and the rising competition of Indonesian tea was ended by the Japanese occupation of the islands. The tea industry in Assam and northern Bengal expanded another 20 percent by 1945. This also put an end to the era of activities of the Indians to extend tea industry in the district of Jalpaiguri, which by now had already occupied a unique place in the tea map of India.

Thus it is noted that the Indian tea industry from its origin right down to the 20th century did not loose its momentum. In the year 1947 India gained its independence and the tea companies were handed over to the Indian individuals or companies.

Thus the British imperialism set in a process of demographic expansion by disrupting the ecological and cultural fabric of the society. The district of Jalpaiguri witnessed a rapid transformation from natural subsistence economy and society to a colonial phase. The district provided a paradigm of mal development which was caused by colonial commercialization and capitalism. The plantation system which was a manifestation of colonial capitalism initiated in this district failed to bring about any such dynamic
transformations in the economic and social order. Throughout the period of British rule the district remained essentially a rural and plantation district. Much higher levels of demands were imposed on natural resources of the country to furnish the raw material for their economy. To avoid having to pay for the exploitation of these resources they took over vast resources as government property which, until then, was owned communally. There was a clash between pre-industrial and industrial cultures in India if looked from an ecological perspective. They out- competed and usurped the Indian handicraft workers, artisans and wandering traders. This was marginally compensated by introduction of new areas that is by converting these usurped population as helpers of the British in the exploitation of the available resources for fulfilling their own purpose. The plantation system introduced in the district of Jalpaiguri also thrived on labourers who were put under various compulsion and oppression. This led to suffering and impoverishment of this particular class and often collapse of the natural resource base sustaining many components of the Indian society. Thus Jalpaiguri also witnessed various tensions and conflict in the social, cultural, ecological and political life which found its expressions through various manifestations that the district witnessed in the coming centuries.