CHAPTER –5

HEALTH CONDITIONS IN PLANTATION SEGMENTS

The tea industry was one of the exclusive profitable industries of North Bengal. Tea in North Bengal was doling out immense wealth, both to the people and to the Government. The industry not only changed the economic structure of the region, but also shaped its political, social and cultural life. The tea belt of North Bengal was mainly concentrated upon the four districts of northern border-Darjeeling, Jalpaiguri, CoochBehar and West Dinajpur. Before the annexation of the British ,the Koch, Mech, Rabha, Kshen, Paliha, Garo ,Toto, Tharu, Dhimal, Bhutia, Lepcha etc people of different indigenous race used to reside in that region.[1] The superior tea gardens were mostly centred upon the districts of Darjeeling and Jalpaiguri. In the year 1969 approximately 98 gardens were located in Darjeeling, 151 gardens in Jalpaiguri Duars and 48 tea estates were present in Tarai.[2] The gardens were created in the region covered with dense forests, jungles and swampy lands, favourable for the rise of diseases especially malaria. As it was an important location for the expansion of British economy, numerous malaria investigations, enquiries, refresher courses to awaken the medical officers about the prevention of different diseases, were undertaken at several times considering the importance of the region.[3]

The purpose of the chapter is to bring into light the essence of the malaria and black water fever surveys, the nature of various diseases which attacked the garden labourers, the causes of dearth of efficient doctors especially in the Indian tea plantations, the poor housing, sanitary and health conditions of the workers and the reasons of aversion of the labourers for going to hospitals. Even at present the tea industry is the most beneficial industry of North Bengal. The British planters were replaced by the Indian planters. But the health conditions of

the workers are in disastrous situation even now. Thus the present chapter's focus on the poor health condition of the labourers in the previous period can be a model from which the present planters can take a lesson, can review their policies and modify their defects.

Tea plantation was first set out in Darjeeling in 1839, in the Tarai in 1862 and in the Duars in 1874.[4]From 1856 tea was started on a commercial basis in Darjeeling District[5]. From 1860, with the speedy boost up of the tea industry, the augmentation and expansion of Darjeeling was quick and magnificent.[6] Within fourteen years of its journey on commercial line the number of tea gardens increased to 56 incorporating an area of 11,000 acres on which 8000 labourers were employed in the yield of 1,700,0001bs of tea.[7]

Thus when the British faced a problem to acquire land for new tea plantation in Darjeeling area, they kept their eyes on Duars. The annexation of Duars became necessary to meet the demands of the tea planters. In 1865 an area known as the Duars, situating at the foot of the Himalayas and to the east of the river Tista was taken from Bhutan by the British Government followed by a war. The Eastern Duars to the east of the river Sankosh were amalgamated with Assam. The Western Duars, the region between the rivers Sankosh and Tista were incorporated in the Jalpaiguri district which was formed in 1869.[8] The prosperity of tea industry was also a reason for the formation of Jalpaiguri district. Land Acts were implemented in the other districts of West Bengal .But Duars and Darjeeling were kept out of its jurisdiction .Waste Land Act was initiated in this region.[9] It was clearly mentioned in the Act that the majority of the waste land would be utilized for the creation of tea gardens. The rate of land tax would be a minimum for tea plantation. In certain cases there was also a probability of tax exemption .The prevalent rules and regulations of the country were not applicable in the tea gardens. Due to the absence of any labour act the planters and garden managers reigned in the gardens.

Duars was very much unhealthy and certain diseases, especially malaria and black water fever raged there. But the tea planters very much preferred the area as it was climatically suitable for tea plantation. The high rain fall of 180 inches and red loamy soil of the Duars were perfect combination for the growth of tea. Dr. Brougham, who had started Dhutaria garden in Darjeeling in 1859, launched a garden at Gazaldubi in 1874, employing as his manager, Richard Houghton. He earned his fame as he opened up the journey of tea in the Jalpaiguri district .After that gardens were set up at Fulbari and Bagrakote and by 1876, 13 gardens had been brought into being.[10]

The year 1877 was a milestone in the history of tea industry of North Bengal.[11] In that year Munshi Rahim Baksh, though he was a peshkar (bench-clerk)of the Deputy Commissioner, but became able to obtain an endowment from the British Government for production of tea. He was the first Indian to obtain such a special grant which came to him in the form of the Jaldhaka Grant.[12]Subsequently Baintbarrie, Bamandanga, Ellenbarrie ,Dam Dim, Kumlai and Washbarrie tea estates began their journey.[13] The first Indian joint stock company was started at the initiative of a few Bengali lawyers and clerks of Jalpaiguri in 1879. [14] The first Indian tea garden named Mogalkata tea estate and an Indian enterprise Jalpaiguri Tea Company Ltd were initiated in 1879. In 1878,the Duars Planters Association (DPA), an organization of European planters was set up. But the organization of the Indian planters came into being in 1915 under the name of Indian Tea Planters Association (ITPA). The growth of tea plantation was not satisfactory from 1879-1910. At that period only 11 companies had taken birth. But during the period between 1910- 30 the Indian tea industry in the Duars reached to the pinnacle ,by escalating the number of gardens owned by Indians to 47 .[15]

The total plantation area in the Duars region was 365,752.78 acres or 571.49 square miles under the control and management of different tea estates and out of this total area 156,200.24 acres or roughly 244.06 square miles were under

actual plantation of tea. Major portion of the total number of tea estates in the province of West Bengal was located in the district of Jalpaiguri.

As a result of a creation of a large number of tea gardens, there was a significant change in the demographic composition and consequently in the social and economic life of the districts of North Bengal .The change came in the form of large -scale migration of tribal peasants, especially Oraons, Mundas and Santhals from Chota Nagpur and from Santhal Paraganas to the tea gardens as labourers .[16] In 1888 the tea gardens of the Duars employed more than 50,000 labourers. The indigenous population mainly consisted of Rajbansis, Muslims, Meches ,Bhutias, and Totos etc. They were unwilling to join the gardens as labourers. Because those people were not satisfied with the cheaper rate of the wage given by the tea planters, which was as low as Rs. 3 per day.[17]On the other hand the wage of an agricultural labour was Rs. 7 per day. Moreover it would be difficult for the planters who were new comers in the region, to make torture on the local peasants. They could exploit and made injustice to the outside labourers as much as they could. The tribal regions of Bihar where there was a massive dislocation and economic distress due to agrarian changes in the wake of the Permanent Settlement provided a good number of labourers. As a result of large scale immigration, there was a jump in population figures.

At the initial stage in the tea gardens of Western Duars the coolies (labourers) were mainly Nepalese.[18] Afterwards labourers were recruited from outside especially ChotaNagpur and the Santhal Parganas.[19] But in the tea gardens of Darjeeling labourers came mainly from Nepal.[20] As Nepal was situated near to Darjeeling the Nepali labourers came to Darjeeling tea gardens seeking for job. In Nepal the farmers were facing miserable conditions. Always they were under pressure of various taxes and levies. In case of failure of paying tax to the king, the peasants had to provide their free labour not only to the king, but also to the other members of the royal family and employees of the court. Enslavement was a prevalent system in Nepal. Apart from that Shah kings of

Nepal transformed the land law and as a result the indigenous settlers lost their lands to the high caste Hindus .

Just in that transitional period the Britishers set off tea gardens in Darjeeling. To run the tea estates they required a good amount of labourers. The helpless landless labourers of Nepal entered to Darjeeling tea gardens in group by group seeking for new profession and for new destination. The Nepali labourers used to work efficiently in the tea gardens of Darjeeling hill area. But when they were brought in the tea gardens of plains of North Bengal their health started to deteriorate. Especially the Duars area was habitat of malaria and kalazar. Fever was so much common disease in the Duars that it was sometimes known as Duars Fever. Dysentery and diarrhoea were also prevalent. The labourers also suffered from sore in their skin while working in the tea gardens. For them the Duars and Tarai were not at all healthy and hygienic.

As the Nepali labourers were reluctant to work in the Duars gardens due to its unhealthy nature the tea planters started to recruit workers from outside. Thus the labourers were brought by arkati (recruiting agency) from outside Bengal.[21]The system of recruitment of labourers from different places was going on through the sardars.[22] The sardars or recruiters collected labourers from their native districts of Hazaribagh, Chota Nagpur, Santhal Parganas etc. Sufficient money was being given to them in advance to pay their expenses back to the gardens. A Sardar used to get remuneration for each labour.[23] Those recruits were known as Madasias by the British as opposed to Nepali Paharis (hill people).

There was some problem in collecting labourers in that way. The Duars sardars returning with coolies had to face the trouble of the arkatis or professional recruiters .A good number of coolies who left their villages for finding out their destiny in the Duars gardens were forcefully taken by the arkatis and carried off to the Assam gardens and were sold at rupees 100 per

head .[24] In the initial years the coolies were brought to the gardens by road. But afterwards most gardens decided to utilize the railways to save time and "certain number of coolies were lost enroute through desertion or cholera".[25]

Mostly the labourers came to the tea gardens with their families. Because in tea gardens along with the male labourers, female labourers were also necessary. The process of recruitment in the tea gardens was based on family-husband, wife and children. But they were given low wages. The individual salary was not counted. The family salary was reckoned.[26] The planters seemed that the total wages of husband, wife and their children were sufficient for the livelihood of the labourers. But in reality the amount of total wages was not inadequate. In addition there was discrimination in case of male, female and child labourers. The wages of male labourers were higher than the female labourers. On the other hand the child labourers got lower wages in comparison to the female labourers.[27]

Though the labourers were collected from outside Bengal, but the main problem of tea garden authorities in the Duars was to keep a permanent number of adequate workers to run the activities of the tea estates efficiently. The labourers were hijacked from the gardens and were dispatched to other gardens. But the Duars Planters Association became inactive.[28]The British Government was also silent despite several memorandums to formulate any legal step for keeping the labourers permanently in a specific garden. The process of recruitment of the labourers was a recurring expenditure of the planters as it included the expenses of the labourers and their recruiting agencies also. [29]

The labourers in the Duars regularly shifted from one garden to another due to the free atmosphere and absence of any legal contract.[30] The practice was not visible in Assam gardens and the main difference between the Duars and Assam gardens was that the Duars was much nearer than Assam to its main

recruiting centre. Only Duars gardens sent sardars annually to collect labourers from Chota Nagpur, Santhal Parganas and Chaibasa.

As the population was not static in the tea gardens, it was also difficult to collect perfect statistical data of their birth and death. The provisions of Act IV of 1873 were in force in the whole of the Rajshahi district, except the region of the east of the Tista. Chaukidars had been appointed under Act VI of 1870 in all parts of the Kalimpong area.

The tea garden managers preferred to use hatchittas or the English form report for keeping the record of birth and death. The chaukidars under Act VI would have to attend weekly at the police stations and reports of births and deaths were also made weekly by them. As in the month of January the labourers were not found in sufficient number, the managers were advised to send the reports in two phases- one in the first week of January and another in the first week of June.

Insanitary condition prevailed in the tea gardens of the Duars and Tarai.The most common ailments in the tea gardens were malarial fever, dysentery, diarrhea, phthisis, kala azar, anaemia, blackwater fever, goiter, worms, skin disease, skabis, tuberculosis, leprosy, xerophthalmia (night blindness due to vitamin A deficiency), avitaminosis ,small pox, cholera, rheumatic afflictions and other respiratory diseases.[31] But majority of the tea garden population sacrificed their lives due to malarial fever.

The following table shows the annual figures of death due to various causes among the tea labourers in Jalpaiguri.

Cause of death	1916/17	1917/18	1918/19
Fever	1601	1481	4276
Chest complaint	754	833	2116
Other causes	1837	1774	2048
Smallpox	31	23	216
Cholera	83	78	1223

Source : D.P.A Report 1920, P. 116.

In the Duars tea gardens the labourers who came to work out of Bengal, most of them were attacked with malaria and died. Due to the drinking of unhygienic water cholera also used to occur among the coolies. The legs of the labourers especially the female labourers were bulged out for excessive walking in the gardens. The coolies were so much frightened terribly by diseases that they fled away from the gardens inspite of the increase of their monthly salary and even recruitment of the guards to keep constant eye on their movements. During the period 1886- 1905 there was no proper health centre in the gardens. In some tea gardens in the Duars the health centre was in the form of a thatched room and there was wanting of qualified doctors also. The managers and assistant managers sometimes gave medicines to the labourers. The managers also hired people as doctors who could only read and write and were familiar with the name of "malaria" and "quinine".[32]

Due to the paucity of efficient doctors and well maintained health centres a large number of labourers lost their lives in malaria. It is evident from the following table that from 1938 to 1944 a huge people sacrificed their lives due to malaria.

Year	Total Population	Fever	Dysentery & Diarrhoea	Cholera	Pthisis	Chest complaints	Kalaazar	Black Water Fever
1938-39	2,85,789	1326	1175	26	477	1061	9	8
1939-40	2,90,174	1228	1024	41	490	802	9	8
1940-41	2,91,253	1314	950	5	541	736	10	9
1941-42	2,85,877	1142	1065	9	528	648	20	5
1942-43	2,89,239	1244	1104	8	517	765	22	5
1943-44	2,75,398	1256	1181	144	543	241	28	11

(Compiled from the Annual Report of the Jalpaiguri Labour Act for the respective years)

As the majority tea garden labourers in the Duars were coming from outside they did not experience malaria before their arrival. The annual constant flow of new-comers aggravated the situation.[33] There was probably no malarious region in India like the Duars tea gardens where the disease was threatening and taking lives of coolies in large scale. Moreover in the Duars the constant immigration of labourers from non- malaria zone and their regular shifting to other gardens spread the disease rapidly. [34] The Duars was so much malarious that it was difficult for the planters to keep immigrant labour settled there.[35]

In the tea gardens black- water fever was also a common disease affecting both the Europeans and the indigenous settlers. Due to the frequent occurrence of this disease causing a heavy mortality, an appeal was sent to the British government for an investigation. New-comers were rarely attacked by the disease. In few cases the disease did attack the residents of less than 6 months' staying .The second and third years of residence in the Duars was the most sensitive period. The majority of cases occurred then. After four or five years of continuous residence in one place the danger of the disease was much reduced. The actual mortality was about 10 percent of all cases, but was generally greater among Europeans than among natives.

From the graveyard of the Ranichera tea estate of Odalguri located in Jalpaiguri district it is evident that a large number of the planters lost their lives due to malaria. Thus the planters were alarmed by the ravages of malaria. Unfortunately there was no proof of the death of thousands of labourers and pther employees of the tea gardens[36].

At the repeated requests of the planters an enquiry into the occurrence of malaria and especially of black - water fever in the Western Duars was undertaken by Dr. Bentley, M.B. and Captain Christopher, I.M.S. [37] After the coming of the British in the region they found that the area was malaria prone and took lives of many people especially of the European planters. Thus it necessitated the coming of the commission in 1909 and it determined the causes of malaria in the region. The investigations were made by Drs Stephens and Christophers and Captain S. P. James, I.M.S. During the course of the enquiry they explored that among all the diseases, malaria took the dominant position in the Duars. They stated that the region was also affected by black- water fever .That was not a new disease for them as they found it in Africa during their visit there .[38]

One result of the enquiry was that malaria was the most prevalent disease of the area and it was dangerous mainly for the Europeans. The enquiry also made it clear that the malaria affected persons and the vulnerable anopheles mosquitoes were the carriers of the germ of malaria which had taken lives of many people.

Among the Europeans who stayed in the Duars, were mainly affected by the malaria. In every season new comers suffered from the disease after one to three weeks of their coming. [39] Those Europeans who stayed in the region for a year and those who recently returned to the Duars after enjoying leave were affected by repeated attacks of fever. But the others who lived there for long

duration were not attacked by malaria, though suffered from liver problem, biliousness and dyspepsia, common symptoms of mask malaria. Thus, the death rates among Europeans in the Duars were very much high. Among the Europeans approximately 20 to 75 adults among 1000 people used to die regularly due to malaria, where as in the whole country about 7 Europeans died among 1000 people.[40] The investigators were of the opinion that malarial fever which led to infection and death among the Europeans in a large scale occurred due to contact with the indigenous people suffering from malaria.

The enquiry was undertaken mainly in the tea gardens, where more than 15,000 persons worked. Those people were severally suffering from malaria. After the examination of the blood of young children in the Duars it was found that the endemic index was very high, did not fall below 50, but in many cases reached to even 100, and in general it was staying in about 80.

As Captain Christophers and Dr. Bentley vehemently criticized the medical conditions of the tea gardens, the Government of East Bengal and Assam thus appointed the Duars Committee in 1910 under the chairmanship of Mr. S.J.Monahan, I.C.S, to inquire into the sanitary and economic conditions of the labourers in the Duars. The Duars Committee rejected many statements of the two medical officers. The reason of difference between the statements of the two committees was due to the fact that Christophers and Bentley conducted their enquiry in 1908, a year of scarcity, ailments, high prices, high influx of new labourers having poor health. But in 1910 during the second enquiry the situation was much better. [41]

Though the malaria was a dangerous enemy for all the people who used to come to the Duars for the first time, but it was not so much perilous for the people who were the permanent settlers of the region. Malaria was chiefly found among the young, and the rate of child mortality was very high . Most of the European officers stationed at Duars cited the example of the Meches, an

indigenous tribe of the Duars who were malaria proved. But with the rapid growth of the tea gardens the Meches were expelled from their habitats and most of them took refuge in Alipurduar sub-division and others went to Assam.

The symptoms of black water fever and malaria was not similar. "There was usually a sharp chill like severe ague, but this was quickly followed by the passage of dark brown, blackish or bloody urine, and generally by repeated and persistent bilious vomiting. The temperature raised rapidly, pain at the pit of the stomach might be complained of and jaundice soon became evident. The attack might last from twelve hours to four or five days and relapses were not uncommon." In most cases the first sign of recovery from the disease was the clearing of the urine. When the disease became serious the patient used to die from heart failure.

The investigation established the fact that black water fever appeared as a consequence of regular and frequent attacks of malaria, a permanent danger to the residents of the Duars. The investigation also disclosed the fact that same measures would be taken for the prevention of malaria and black-water fever and for remedy a wide anti- malarial propaganda would be very much effective. Thus as an after effect of the enquiry the Europeans were very much enthusiastic to spread ideas among their fellow friends about the causes of malaria, precautions to be taken and regarding the preventive and remedial measures. From 1907 about 75 percent of the Europeans residing in the Duars started to take quinine containing 5 grain at a regular basis.[42] Moreover as an additional precautionary measure they started to use mosquito nets and a large proportion of the bungalows had been covered with galvanized wire mosquito screens to the doors and windows or corridors to combat the intrusion of the mosquitoes.

It was surprising that after enquiry most of the European people residing in the Duars began to regain their health. The British administrators were not definite whether it was the positive effect of the investigation or not. Fever was

not found in such a virulent form like before and the number of people affected by it became less. Black water fever also did not attack the people who had taken the prior precautionary steps.

But the impact of the investigation was not so much effective for the general workers. Among them no extensive anti- malaria or anti- black water fever propaganda was undertaken. As regards prophylaxis among the general population, in a number of gardens, planters had begun to distribute quinine in palatable form freely among the coolies. In some cases the consumption of the valuable remedy, previously used in little quantity, had increased tenfold. When the labourers used to come to factory to submit the leaves paludrine was directly poured into their mouths as profile active or precaution. If they denied to take paludrine their leaves were not taken. When the labourers were attacked with malaria they were given quinine.[43]

Though the investigation to prevent the spread of black water fever was undertaken, but no concrete step had been taken to check the ravages of black water fever till 1920. Thus the Medical Officer of Indian gardens, Dr. T.P. Sanyal approached to the Vice- Chairman of the Duars Planters' Association for the initiation of research of black water fever by the School of Tropical Medicine. The doctor believed that in black water fever the tone of the liver became weak. Thus he was of the opinion that after the preliminary treatment of the liver by liver tonic (Hydrarg Subchlor) the doctors should prescribe Quinine Bi-hydrochloride of 5 grams in solution 4 times a day for the first four days.

Numerous notes and leaflets both in English and Bengali on influenza, its causes, prevention and control had been prepared and widely circulated by the Sanitary Department to the tea gardens in 1920. Afterwards in 1946 the Darjeeling and Duars sub-committee sent demands to urgently send quinine from Calcutta as malaria appeared there as an epidemic form. In the year 1946 the immense use of mepacrine began in a large scale than previous years and the

experimental use of paludrine on selected gardens in the Duars by the Bengal Government Health Authorities was initiated. [44]

In black water fever atebrin was used. The medicine came from London. But as the disease disseminated widely in every garden of the Duars, Ahoi tree was planted. It was a tree 20 to 40 feet high with numerous branches and twigs and leaves. The Kols, Santhals, Oraons and Mundas used the leaves of Ahoi or Vitex peduncularis as a febrifuge against black water fever. From them the British borrowed the idea and they also utilized it in the treatment of black water fever. Green Ahoi leaves were prepared in the proportion of 20 ozs. of water to every ounce of leaves. All loss by evaporation was made up by adding boiling water. A mixture of the dried leaves was made in 40 ozs. of water to every ounce of leaves, and loss in boiling was made up by adding boiling water. The doctors prescribed the extract of Ahoi leaves thrice a day as medicine to cure black water fever patients.[45]Later on Ahoi extract was available in bottle.

Black water fever was a dreaded disease as it had took the lives of many tea planters in the Duars. Consequently an officer was sent by the Malaria Department of the All India Institute of Hygiene and Public Health to the Duars tea gardens to find out the problem. [46] All the gardens were instructed to inform the officer deputed at Kalchini whenever any case of black water fever occurred in their gardens. Afterwards seeds of Ahoi tree were easily available from the Divisional Forest Office, Jalpaiguri , District Board's Office, Jalpaiguri, Lataguri Forest Office and Kumlai Forest Office. From the above centres the tea gardens collected the seeds of Ahoi tree and sowed in their respective gardens.

Hay Arthur, an assistant of Ronald Ross was the Chief Medical Officer of the tea gardens of Macleod, Tata and Duncan groups. He took a precautionary measure to prevent malaria. In the central points of the branches of the shed trees of tea gardens mosquitoes used to breed. According to the instruction of Hay Arthur the doctors filled the breeding points by sand in climbing the shed trees.

The doctors had also to clean the sea pase water (water coming from under the soil) and did not keep it stagnant.[47]

In 1934 Dr. G.C. Ramsay of Ross Institute proposed some measurers to eradicate malaria after his experiments in the Dumdim area. He was of the opinion that without irrigation it would not be possible to eliminate malaria in the Duars. In Dr. Ramsay's Draft Bill it was stated that excavation would be extended to tank, well, ditch, drain, pit or irrigation channel. It was also suggested that the information of the anti-malaria operation would be published in the local gazette for the information of the Local Government [48]

But the Indian Tea Planters Association was not in favour of Ramsay's Draft Bill. They had several objections against the bill. They firmly stated that the estate managers could not request to the local authorities for permission of any insignificant matter. They argued that the meaning of the word "excavation" was that tea garden managers would be liable to the penal clause and for prosecution. Again excavation in the nature of drains etc. could not be undertaken without serious loss to the plantation. Moreover the Government would not bring in such measures in force which would result indirectly in seriously affecting the very existence of the industry. In addition the Draft Bill also would impose financial burden to the estates. Thus they vehemently rejected the bill which would be harmful to the interests of the people for which it had been proposed.[49]

After the First World War the Government had taken initiative to adopt several effective anti-malarial measures. This consisted mainly of killing the larvae of anophelis type of mosquitoes, the probable carriers of malaria. Prevention of water-logging, spraying of insecticides in water-logged areas and such other measures were adopted mostly by every garden to a very large extent. The Ross Institute of Calcutta played an important role for executing those anti-malaria measures in the tea estates. During the Second World War the allied troops were exhausted by the heat of the Duars, and thus anti-malarial measures

were started on a very large scale. After independence, the then Chief Minister of West Bengal, Dr. B.C.Roy also took a great effort to oust the danger of malaria and the menace to the health of Duars had removed to a large extent.

To remove malaria in the tea gardens Quinine Sulphate and Quinine Hydrochlor were distributed. Both powder and tablets of quinine were used and both sugar - coated and compressed tablets were given. Weights of tablets varied from 5 gm to 1 gm. The prices of quinine sulphate varied from Rs. 18/ to Rs. 23/8/ per 16 and about 2-10 1bs were necessitated for every garden. The prices of quinine Bi-Hydrochlor varied from Rs. 24/- to Rs. 28/13. Mostly quinine was brought from Germany, at times from Java and Britain also. Most of the tea gardens collected their medicines from Msrs B.K. Paul & Co. where Government quinine was available at very reasonable rate. [50]The local purchase of medicine was made from Padmanidhi Medical Hall, Siliguri, Manasha Medical, Cooch Behar, Padmanidhi Medical Hall, Cooch Behar etc.

In Darjeeling tea estates, the pulmonary tuberculosis disease repeatedly visited. The two reasons which were mainly responsible for the regular appearance of pulmonary tuberculosis were the poor housing conditions of the labourers and their social habits were also not hygienic. The other reason was that the labourers had not so much immunity power to combat with tuberculosis. As the workers had no separate room in their house they used to eat and sleep in the same room along with the tuberculosis patient and with the other members of the family, both young and old, until they died. Their houses were constructed in such a defective way that they had also practically no system of ventilation. Thus the germ of tuberculosis used to spread within the houses only. [51]

In 1929 a Leprosy Survey was being made in the European owned gardens in the Duars and a large number of unidentified cases were being brought to light .The survey made it clear that if in initial stage the disease was identified , then by proper treatment the disease could be cured completely. The Indian Tea Association also expressed their eagerness regarding the survey and expected

that the Indian gardens would join in. Dr. Chatterjee led the survey programme and was able to grow interest among the Dumdim and Needam Tea Estates to attend. The estimated cost of the survey was about rupees 25 for a 500 acre garden.[52]

In 1953 the West Bengal Leprosy Association again conducted a survey to get information about the number of leprosy patients in the tea gardens and offered to provide refresher courses for garden doctors. As the courses were designed for the enrichment of the doctors with latest developments in methods of diagnosis, treatment and prevention of the disease, the medical officers of the Duars enthusiastically attended that. Doctor P.Sen of the West Bengal Leprosy Association delivered lectures at various centres of Duars during the course and the doctors were immensely benefited by them. [53]

Beriberi appeared in Darjeeling. The Darjeeling Planters' Association proposed for the appointment of a special officer in connection with beriberi. [54]

There were some diseases which were caused due to improper food habits of the labourers, atmospheric reasons and also the circumstances of the neighbourhood. Thus stomach diseases among the workers were generally caused due to intake of bad food and liquor, malaria for mosquitoes and unclean water swamps, tuberculosis owing to contaminated water and bad liquor. In one of the gardens tuberculosis used to occur because the workers collected water from a nearby stream for drinking purposes ,but unfortunately the stream was passed by TB hospital located in the Bhutan hills and disposed its waste in the stream. Spraying of insecticides in the gardens led to diseases like breathing problems and long duration of plucking hours also resulted in general unhealthiness among the labourers. [55]

In 1922 in Jalpaiguri Tea Gardens more than 70% of the death took place due to loss of protection of previous vaccination. A thorough inspection of all the

inhabitants in some choukidars (guards) lines proved the same fact that more than 70% of them were fit for revaccination. Thus the question of small pox prevention in the gardens was the question of proper revaccination. Vaccination was not popular among the coolies because of the pain of the operation and any intensive campaign of thorough vaccination during epidemics might result in labour movements. "The pain of the operation might be minimized by operating in the lincar method especially by using a rotary lancet and the inflammatory fever might be kept under control using a zinc on boric ointment or only boiled ghee from the fifth day of the operation. But those measures were hardly taken."The most perfect time of vaccination was the cold season and it would not end till the whole population was successfully vaccinated. The managers were also instructed to submit a Vaccination Roll direct to the district Health Officer, Jalpaiguri. [56]

On March 1929 small pox again appeared in some gardens like Kathalguri Tea Estate and Rheabari Tea Estate. It probably occurred due to defective vaccination and re-vaccination amongst the coolies. In the years 1930-33 again smallpox came in a virulent way. [57]

In Some tea estates primary vaccinations were done on two points only instead of four and thus it would not provide proper protection against smallpox.[58] A notification number P.H.1215/iv-7/52 dated 26th April 1952 was issued by the Medical and Public Health Department of the Government of West Bengal and published in the Calcutta Gazettee of 22nd May mentioned that vaccine lymph from the West Bengal Laboratory would be circulated to the tea estates at the moderate rate of Rs 2/13/-per c.c. [59]

In the 1920s in almost 43 tea estates of Darjeeling district, Hookworm infection was very much seriously disseminated. The report of the Royal Commission on Labour in India proposed that the planters should provide annual mass treatment of their workers for hookworm. According to the

recommendations of the commission latrines would be made, the labourers would be given some protective for legs and feet, such as boots and putties and direct skin protective such as emollients coatings. [60]

But the planters were not eager to execute the proposals in practice. The recommendation of the use of boots and putties did not satisfy the planters. Because that was very expensive and in many cases the foot gear was either sold, or used only when the coolies went into Darjeeling market for shopping and moreover the labourers put off the boots immediately after they started working. It was also suggested that all the laboureres would be treated twice in the first year and in the second year they would be treated once and all the coolies which still showed signs of infection should get a second treatment from six weeks to two months afterwards. In many cases where there was the probability of other troubles such as renal disease etc. were sent to health centre and the stools and urine etc. were examined before the beginning of the treatment.

The result was very much effective. The patients having emaciation, potbelly, dropsy etc. became relatively few and the numbers of coolies with negligible infection were reduced in number. In most gardens the labourers were treated in groups of 50 at a time, men and women on alternative days. They used to come about 7.00 A.M., provided treatment and were generally allowed to leave by noon, receiving a holiday for the rest of the day. If any unusual symptom would develop the patient was kept in the hospital until he got the green signal from the medical officer. [61]

A peculiar disease appeared in 1920 at Malbazar of Jalpaiguri district. There a British man was attacked by a disease called anthrax. It was proved that the disease came from a Japanese shaving brush which was purchased from a local shop. The Board of Trade at Home seized and destructed cases containing 1200 Japanese shaving brushes, among which many were found to contain the germs of anthrax. [62]

From February, 1934 treatment of patients bitten by rabid animals had been initiated in Jalpaiguri Sadar Hospital. Thus it was made clear that from that time the patients could be sent to Jalpaiuri Sadar Hospital instead of sending them to Calcutta. The Government ordered to collect ten rupees from each patient as fee for treatment. [63]Phthisis, a disease was generally found among the labourers of the Darjeeling hills. Its outbreak was due to paucity of better housing condition. [64]

Inspite of the prevalence of several diseases the general health condition of the labour in North Bengal was more improved than that of the labour in Assam. Like Assam , North Bengal also experienced several difficulties. The Second World War left a disastrous effect on North Bengal and during the war the labourers of the tea estates were sent to work on assignments in the Assam-Burma frontier. The difference between the Assam labourers and the workers of North Bengal was that the latter were much enthusiastic in farming. They produced vegetables and reared pigs, cattle and poultry. In North Bengal the labourers of Darjeeling hill were very efficient hunters and thus they used to eat regularly wild pig, jungle fowl and various species of deer. As a result the labourers of North Bengal became much healthy and stronger than their fellow colleagues in Assam by taking high protein at a regular basis. The better diet resulted in less under-nourishment and less anaemia. Though the diseases of hookworm, bowel complaints and malaria were found in Assam also, but after taking nutritious food with full of protein the labourers of North Bengal were able to gain much immunity power than their counterparts in Assam gardens. [65]

The following table is a summary of the vital statistics for some of the tea estates surveyed by Dr. Lloyd Jones :

Tea estates Surveyed in	Average mortality rate per 1000	Average Birth rate per 1000	Average Infantile Mortality rate Per 1000 live births	Average Maternal Mortality per 1000 cases
Assam	21.5	32.7	190.9	33.3
Bengal	20.1	34.2	134.1	14.8
South India	14.0	29.3	122.4	6.5

Source : The Indian Labour Year Book 1947,P.171

But the unique feature of the health condition among the tea garden labourers was that the average standard of health in Bengal was better than in Assam, but the labourers in North Bengal were attacked by certain diseases which were chronic and took long time to be cured in a full fledged way. Thus in those diseases the patients in Bengal had to stay several days in hospitals. It was found that Kala-azar frequently visited Bengal in a large scale than in Assam. It was a unremitting disease and thus the patients had to stay more days in hospital for complete healing. Similarly, another disease, pulmonary tuberculosis was widely prevalent in Darjeeling hills. Probably one to two percent of the whole population was attacked by the pulmonary tuberculosis which created great problem for the planters and the doctors as the disease also took too time to cure.[66]

Thus although the labourers in Bengal were much healthy than the workers in Assam, the diseases in North Bengal broke out in epidemic form followed by long duration of treatment in hospitals. Thus the hospitals had to provide numerous beds for proper treatment of the diseases. As a result the bed - population ratio was almost similar like in Assam. The ratio of hospital beds, population, medical officers, midwives, nurses and compounders in Assam and North Bengal in the following data justified the fact.

	North Bengal	Assam
General hospital beds per 1000 population	12	9
Medical Officers(Registered)	1/1500	1/1750
Midwives or dais	1/1500	1/1750
Nurses per 1000 population	1	1
Compounders	1/1500	1/1750

(Source : Major Lloyd Jones' Report, P.38)

The Plantation Labour Act 1951 clearly mentioned that every plantation had to provide free modern medical facilities to its labourers. Each tea garden used to run a primary health centre. Thus most of the gardens in the Duars had dispensaries and common medicines for treatment of their labourers. In most of the European-owned gardens qualified doctors were appointed, but the Indian-owned gardens had generally compounders only. [67] The highest qualification of a doctor in some gardens was L.M.F.[68]

In 1923 in Duars only 5 out of 135 gardens had resident doctors having registered qualification. Those gardens were Atiabari, Bullabari, Binaguri, Killcott and Hantapara. [69]The doctors were given very much low salary in the Indian gardens and thus qualified doctors were reluctant to go to the tea estates. [70] In the European owned tea gardens the doctors had uniforms. They had to put on khaki shirt and half pant and hat. They visited the coolie lines at first by horse and later on by cycle. The Indian doctors joined in the tea gardens as Assistant Medical Officers. They had no prestige and respect. When they were called in the

quarters of the managers for treatment, they were not even asked to sit. The doctors stood like the cooks, gardeners and drivers. They had to make treatment of the pet donkeys, cows and dogs of the managers. They also had to leave the gardens overnight without any previous information with their bag and baggage if they were disliked by the planters. [71]

The general qualifications of the doctors were MB and MBBS. Some FRCS doctors were also employed in some European tea gardens. Some planters also recruited some LTM, DTM doctors in the gardens. In some gardens microscopes were provided for blood examination and ultra violet ray equipments were also given in many gardens .The doctors mainly prescribed various mixtures like quinine mixture, digestive mixture, caoline mixture, alkali mixture, sodi- by curb mixture and cough mixture for different diseases. The doctor was at a time general physician, surgeon, gynecologist, dentist etc. Some renowned Indian doctors served the tea gardens. They were Dr. Dilip Bhattacharya (Deklapara Tea Estate), Dr. Sachin Sen (Satali Tea Esstate), Dr.S. Chakrabarty (Saily Tea estate), Dr. Hemanta Roy of Trihana Tea Estate, Dr. Satyendra Krishna Segnupta of Vijaynagar tea estate etc.

In every labour line there was a choukidar (watch man or guard) .He regularly visited every house of the line and took information about their diseases .As the labourers had apathy to come to health centre, the choukidar gave information to the doctor about the diseases and then the doctor accompanied by him went to the coolie lines with medicines.

The doctors had to go the lines riding on a pony or cycle for some miles and then a walk through each group or group of lines he could visit on that day. But in many cases that very duty was also not performed regularly and as a result many workers died without having any treatment. Moreover when the doctor went to the labour colonies they also approached the workers to visit the health centres for the treatment of their diseases. Some doctors also raided the

coolie lines when the labourers were engaged in night in "jhakri" or removing evil spirits by uttering charms and incantations. The doctors had also to face the resistance of the labourers.

The doctor also had to look after of the sick register properly and maintain records of vital statistics, and in many cases had to compound and dispense all medicines and when it was regularly given he had to administer prophylactic doses of quinine. .But the activities of the doctors largely depended on the number of people he had to deal with and how it was housed, i.e. whether housing was closely grouped or scattered about the garden. In many gardens those factors could not be given importance because it was found that among a total population of 2,000 there was only one doctor to look after them. As a result in those gardens the doctors could not perform their duties of treating the labourers in the coolie lines efficiently.

But the doctors were very much irresponsible in many cases. In 1923 medical officers of the tea gardens of the Jalpaiguri district had been supplied by the Bengal Public Health Department with vaccine lymph at free of cost both direct from the Provincial Vaccine Depot and the District Health officer of Jalpaiguri. They supplied that with the hope that periodical returns of vaccination performed with the lymph would be sent in the prescribed form by the respective tea gardens. But unfortunately the medical officers of majority gardens did not dispatch the return regularly every month to the District Health Officer of Jalpaiguri. Moreover the doctors were so careless regarding their duties that the number of vaccination operations about which they used to report performing in the three consecutive years (1921,1922 &19 23) was quite wrong in proportion to the total quantity of lymph supplied. [72]

Year	Quantities of Lymph supplied	Reported numbers of vaccinations
1920-21	12086 grains	2631
1921-22	12814 grains	2456
1922-23	10038 grains	444

Source: DPA Report 1923, P.106.

The medical facilities in Indian gardens were quite insufficient in comparison to the European gardens. In 1935 there were 155 gardens in the Jalpaiguri district. Among them 104 were under European and 51 under Indian domination. [73]All European - owned and some Indian- owned gardens were visited once a week by the Group Medical Officers who were paid by the gardens in the group on an acreage basis. But there was also lack of supervision on the part of the group medical officers. Again in serious cases it became very difficult to get their services on account of the gardens being so widely scattered and the absence of proper communication system was also a deciding factor. Very serious cases were usually referred to Civil Hospital, Jalpaiguri. But due to the scarcity of vehicles it was not possible in many cases to reach to Jalpaiguri within proper time.

The functions of the resident doctors in the health centres were supervised by the group medical officers. But there were a number of gardens where group medical officers were absent and thus the resident doctors had nobody to supervise them except their own managers. The conditions of those dispensaries were horrible. There were sufficient resources but systematic organization and scientific methods, cleanliness and proper attention to the sick were totally absent .Similarly with regard to sick registers many difficulties were found, including diagnosis made at random with little or no attention to nomenclature of diseases. As a result the accuracy of monthly returns of sickness became a question. All

births and deaths were registered by resident doctors. In the gardens where bonuses were paid to the mothers the registration of births was almost perfect as the outcome of those payments. The registration of deaths, on the otherhand was performed in a poor condition. Comparing many death registers with the dispensaries' sick registers several mistakes were observed. In many gardens several deaths occurred without the resident doctor knowing anything about them and as a result he recorded them according to what relations usually told him. Though correct registration of vital statistics especially of deaths of young children and of expectant and delivered woman was of great significance.

The Government was very much anxious by the miserable situation and asked to the Duars Planters Association about the usefulness of keeping those unqualified and irresponsible doctors in the Indian gardens. The DPA argued that it would not be possible for them to terminate the services of those unqualified and irresponsible doctors who were serving the gardens regularly from long time. Their opinion was that when the doctors left the gardens after the completion of their service they would be immediately replaced by properly qualified medical officers. Those inefficient doctors were working in some gardens continuously for twenty or thirty years. In many estates the situation was so poor that the doctors had no knowledge of English language also. In one garden it was reported that a doctor was preparing a gargle for a woman who was seriously suffering from tetanus.[74] The doctors were not only unaware of medical knowledge, but often they used to do barbaric treatment also. "During an epidemic of ulcer a medical practitioner was seen to be cauterizing all his cases with strong nitric acid in such a manner that the acid ran down over the limb burning deeply and increasing the mischief." [75]

Considering the importance of the situation in 1956-57 the West Bengal Plantation Labour Rules determined very high qualifications for certifying surgeons. But in reality a negligible number of doctors were able to perform the duties except Principal Medical Officers, and the latter unfortunately could not

perform the duty of issuing certificates of fitness efficiently. The Indian Tea Association thus approached to the Government of West Bengal that the qualifications should be reduced and as a result the Assistant Medical Officers (A.M.O) could be recruited as certifying surgeons. The State Government lastly accepted the proposal and agreed to accept any certificate issued under the Indian Medical Councils Act, or the State laws relating to medical councils and it was seen that the very minimum qualification was possessed by the majority of A.M.Os.[76]

The clauses of the Plantation Labour Act (1951) prescribed that for the better treatment of the labourers the system of health and medicine should be enhanced and "Group Hospitals" would be constructed. Those hospitals would be designed in a way to serve the people with all kind of treatment facilities. Accordingly group hospitals were started centering ten twelve gardens in Malangi, Kalabari, Gopalpur, Aiabari, Alipurduar,Debpara etc. The group hospital doctors mainly treated tuberculosis and other lung diseases, malaria, bowel diseases, leprosy etc. The group medical officers used to visit the gardens placed under their jurisdiction from time to time and looked after the sanitary conditions of those gardens and to advise and give instructions to the medical officers of the member gardens within the group in case of emergency. [77]

In every tea garden the workers were provided with the medical allowance or "sick hazira" when they became ill. To obtain the allowance they had to approach the doctor of the garden and on his recommendation he was entitled to the "sick hazira" and also the ration which was to be allowed during the sick period. But the actual picture was that as the doctors were the employees of the tea estates and worked under the domination of the managers, the latter interfered regularly within the activities of the doctors particularly in recommending the number of days the workers were to be taken as sick for the purpose of that benefit. The actual situation was such that time and again the

workers had to go in front of the managers initially before they went to the doctors for their declaration as sick. [78]

On 27th February, 1953 members in Darjeeling had been advised of an increase in the rate of sickness allowance by -/1/6 to -/10/6 per day as the selling price of food grains enhanced tremendously. In a Government of West Bengal notification of 11th January the cash wages in Darjeeling were raised by a further -/1/9 from 15th November, 1953 and by an additional -/-/3 from 1st January, 1954. In view of the increases the Association recommended in a circular dated 25th February that with effect from 1st January,1954 sickness allowance should be paid at the rate of -/12/- per day to adult workers and -/6/- per day to minors on estates in Darjeeling. [79]

It was mentioned clearly that "when an ailing worker came for treatment in a health centre for the first time, he or she would be treated as a "New" case on that date. If he/she would come for further treatment of the disease he/she was treated for, for the first time, the labour was shown the next day as an "Old"case and so on, for every subsequent day that the worker attended till he was discharged, cured or otherwise. If after a few days of recovery, the labour again attended for the same disease, then would be shown as a new case".[80]

Regarding hospital Darjeeling had to face several difficulties. The gardens were very small in size and they were also situated at difficult places. As the region was hilly and communication problem was there the gardens could not be supervised properly. The physical atmosphere of the area like the high hills and cold climate were responsible for the small size of the gardens. Most of the gardens used to have a population of less than 900. The strategic position of the gardens created several difficulties in providing medical assistance. As the gardens were scattered and their distances were too far, it became impossible at times to reach to several gardens accompanied with medical equipments at

emergency. As a result it was also impossible in those gardens to get the services of the group medical officers frequently.

Some few garden hospitals were provided with sufficient indoor accommodation. In most cases it consisted of a room or two with a few beds. In some of the garden hospitals ten beds were provided for each thousand of population and two of them would be reserved for midwifery cases. For each 2500 population one registered medical practitioner, one nursing attendant and one dai or trained midwife and one anti- malaria assistant (where malaria is prevalent) were allotted. In some tea gardens there was no arrangement for cooking of food for the indoor patients. Thus the patients did not visit those health centres. There were a small number of gardens where a daily allowance was given to a relative of the inpatient to act as attendant and cook food for him. To prevent malnutrition many tea gardens in the Duars had taken the step of mid-day feeding of non-working children. In Darjeeling, that was performed in a little way.

In respect of medical facilities there were two types of plantations - plantations with superior medical facilities and plantations with least medical facilities. The comparatively better health centres of tea plantations were to be found within walking distance from the factory and quarters of the staff, but to a certain extent distant from the houses of the labourers. The health centres had four parts in it. 81 The first section which was the entrance of the health centre was meant for the doctors. The next section was made for the pharmacist. Behind that there was a room for medicine stock and utensils for minor surgery. The room next to that was a spacious one where there were beds meant for in-patients. The quarters of the doctors, compounders, and nurses were situated near the health centre. A salient distinguishing feature of the health centre when compared to the health units of other tea plantations with minimum facilities was that the former had a permanent doctor. The health centre also had a pharmacist, a compounder, two nurses, a dresser and a mid-wife. The health centre

functioned from 8a.m to 5 p.m daily except on sunday with a break of one hour in the noon. The staff was required to perform duties outside the working hours during emergency. In the absence of the doctor the pharmacist was required to treat patients. He did clerical jobs also. [82]

But the health centres with minimum medical advantages were left in a poor condition. Some of those dispensaries used to run their functions in a section of the administrative section and also in store rooms. Thus the patients hesitated to go to those health centres.

But the picture was completely different in European gardens. The health centres used to have indoor accommodation from 4 to 12 beds and even more. Those hospitals had qualified doctors, nurses, indoor beds, waiting rooms, operation rooms, adequate supply of medicine and medical comforts. In the Indian gardens those facilities were absent and even stock of quinine was abnormally short there.

The workers were provided with medicines freely from the health centres. If the medicines were not available the workers could buy those from outside and they were paid for that. Minor operations were done there but serious cases were referred to better hospitals.

In the tea estates where the health centres were set up near the houses of the workers, in most cases the labourers, were inclined towards western system of medicine. Economical and educational factors motivated the people to adopt modern health practices. It was found that the educated and financially sound workers accepted more frequently to modern medicine.

The houses of the workers were not constructed properly. The quarters were made of bamboo with thatched roofs. As there were not sufficient doors and windows in the houses the rooms were not well-ventilated and thus

unhygienic. Those unhygienic atmosphere resulted in the outbreak of several diseases among the labourers. But the tea planters were reluctant to set up the houses of the workers in a better way. But in the European gardens the houses of the labourers were in a better position and had provided much quarters than their Indian counterparts where the housing was definitely poor and repairing work were not done till the huts were almost falling to pieces.

The sanitation facilities in all the labour lines of the tea estates were very poor. The drainage system too was not satisfactory .In most of the gardens the drains were in the form of thin line near the walls of every kitchen or house containing garbage and stagnant water. That produced rotten smell and served as a breeding place for mosquitoes and germs making the environment filthy and unhealthy.

The strategic position of the Duars tea gardens was important from the point of view of water supply to the gardens. As the gardens grew beneath the Himalaya near Bhutan, there were sufficient supply of water which used to come through pipe lines from the springs coming down from the hills. Some gardens had made concrete reservoirs fitted up with taps in the lines for storing water. Certain concrete wells were also there in some gardens. [83]

The water supply was adequate in the Terai where "Raniganj Ring" wells had been dug up near labour lines. In the majority of the gardens in Darjeeling special arrangements had been made for supplying water to the workers who got it from the small springs that flew through their gardens. But it created trouble for the workers as some of the springs became dry in summer. The workers had to go a long distance for water if the spring was not near the line. Spring water was carried by bamboo pipes to workers' lines in tea estates. [84]

In most of the gardens of the Duars there was no arrangement for latrines or urinals and the labourers both male and female used the open fields adjoining

their houses. That practice was unhygienic for themselves. In some gardens where latrines and urinals were provided, but the workers could not utilize those and instead used the open fields. The planters thus were reluctant to build latrines for them. But the actual fact was that the labourers could be given sanitary sense by proper education. But the authority did not show interest for that.

Women were the most significant portion of the labour force of the tea gardens. In the tea gardens of Jalpaiguri district the female labourers mainly came from Chotanagpur, Ranchi, Lphardaga, Nepal, Bhojpur. In some gardens local labourers were also employed. Their main functions were plucking, weeding and hoeing. By the abolition of unequal wages between men and women in 1976, and its full implementation in 1979 the women got significant status as workers. In most of the gardens the system of health and medicine was not satisfactory. The main complaint of the women labourers was about the doctors. There was no provision for nursing and there was no female ward in some health centres. Generally in most of the gardens there were no female doctors and the women labourers used to hesitate to discuss about their female diseases in front of the male practitioners. As a result they did not go to the male doctors and ultimately they became dependent on occult methods. A few female labourers used to consult with the doctors through their husbands. [85]

The Bengal Maternity Benefit Bill was passed in 1941. It was enacted that it would be called the Bengal Maternity Benefit (Tea Estates) Act 1941. According to the act no employer would employ a woman in any factory during the four weeks immediately following the day of her delivery. Accordingly every pregnant woman worker would be entitled to get maternity benefit in respect of the period of four weeks preceding the expected day of her delivery and four weeks immediately following the day of her delivery. [86]

According to the unwritten law of the tea gardens the labourers were under the "no work no pay" rule. This law was applicable to the pregnant female labourers also. Though tea garden trade unions had various demands, but they were never vocal for that. The Maternity Benefit Act was passed by the then West Bengal Government in 1962. Though in later years many changes were undertaken in the clauses of the Act, the passing of the Act itself was a historical step.

But in reality its execution was a difficult task. The tea planters had many objections against the Act. They argued they would not be able to give maternity benefit according to the act, because in that case their expenses might be increased manifold. It was stated in the Act that before delivery some money would be given to the mother. But the planters were afraid that the husband of the female labour would digest that money. They were also not agree to give the daily wages of the mother for the maintenance of discipline in the tea garden. Inspite several memorandums of the tea planters for amendment of the Act the Government did not pay any heed to their demands.

The garden labourers did not welcome family planning measures. Because that posed a hindrance towards their source of income. As in tea gardens the labourers were recruited on family basis, thus by adopting family planning measures they did not want to reduce their family income. Although due to a large number of children they suffered from malnutrition and anaemia they disliked family planning measures. The tea industry also had to face serious difficulties due to overpopulation. It resulted in unemployment.

To aware the labourers a family planning campaign was introduced by the Family Planning Association of India. In the cold weather of 1957 -1958 Dr. Krishna Rao began her journey towards the Duars. In her tour, during the last six weeks of the year she conducted a series of five-day courses for medical officers at different centres of the Duars. The medical staff of the Duars tea gardens

enthusiastically accepted the courses consisted of lectures and clinical demonstrations on theory and technique of family planning.[87]

But the impact of the courses was not so much fruitful for the labourers. An interesting incident transpired related to family planning. In one of the gardens of the Duars the doctor made vasectomy for male workers. But that was disliked by the Christian labourers of the garden. They were united under the Christian father of the church of the garden and raised their voice against the doctor. Not only that the father collected the signature of the Christian labourers and made a deputation demanding the expulsion of the doctor from the garden. Their allegation was that the doctor was doing vasectomy forcefully , he did not do treatment properly and he also did not give maternity allowance. The doctor became furious and commented that he would do vasectomy of the father also. It was like a spark to the fire. Consequently a tremendous resistance started .The whole Christian community became enraged and became vocal to remove the doctor from the garden. They even assembled in front of the quarter of the doctor with shovels, crowbars in their hands.[88]

Consequently an enquiry was undertaken directly from the Writers' Building .The Enquiry Commission interrogated the Christian labourers individually in a room and did not allow any one to go outside during the whole process of interrogation to keep transparency. The labourers stated that the doctor did perform delivery cases, used to stay over night in the health centre after delivery cases and also properly provide maternity allowance to the female labourers.

The members of the Commission became astonished and they asked the labourers that then why they did signature on the deputation. The labourers responded that they were instructed to do so by the Christian father. Finally when the report of the enquiry came out it was found that the doctor was not guilty and the Christian father was expelled from the tea garden. The expulsion

of the father left a negative impact on the doctor and an anti - propaganda was started. The R.S.P Christian labourers accused to the R.S.P leader Gopal Mitra against the doctor and threatened that they would give up the association if the doctor was not removed from the garden. But Gopal Mitra did not pay any heed to their illegal demand and saved the doctor from expulsion. [89]

The Indian Tea Planters 'Association had set up the Duars and Darjeeling Nursing Home at Darjeeling to cater the medical needs of the tea planters. The equipments and x-ray apparatus at the nursing home were modernized and it used to offer the best possible medical attention to the stuff of subscribing tea companies and to the local residents of the tea districts also.

The tea board donated rupees 57,000 for the maintenance of the Deshbandhu T.B Chest Clinic, Darjeeling. The facilities provided by the clinic became available to the tea garden labour during 1956. Tea garden workers attending the clinic had to show a letter of authorization from their manager and they were provided with an x-ray examination at the concessional rate of rupees 10 and with the free supply of common medicines, the more costly being charged for. [90]

The Deshbandhu Maternity and Child Welfare Centre at Darjeeling were trying to expand their dhai (midwife) training schemes so as to meet the requirements of tea gardens in the districts of Darjeeling and Jalpaiguri for such personnel. In February 1956, the Tea Board informed the Association that the Board had made a grant of rupees 60,000 towards the Centre which had therefore agreed to train 24 girls a year nominated by tea gardens throughout India. The training courses to be provided would be of six months duration and would commence on the 1st April , 1st June, 1st August and 1st September each year. It was decided that no fees would be charged for the training and each candidate would receive a stipend of rupees 30 per month from the centre. The candidates would have to be less than 20 years old and should have studied atleast upto

class VI. Those courses became quite popular and several nominees of tea gardens in the Association's membership not only in West Bengal but also in Assam received training during the year. [91]

In 1955 Jalpaiguri and Cooch Behar hospitals gave a proposal for the establishment of Nurses' training school . Accordingly the Indian Tea Planters Association accepted the proposal as it would be best to utilize the facilities offered by those hospitals for the training of the nurses that would be required by tea garden hospitals. It was then appealed to the Tea Board that a grant might be made by the Board to the hospitals at the rate of Rs. 1000/ for each garden candidate accepted for training as a nurse. At the end of the year 1955 the Board informed the Association that they had received a similar proposal from the Indian Tea Planters Association, Jalpaiguri who had suggested a grant of Rs. 40,000 to the Jalpaiguri Hospital for the establishment of the Training School and stated that tea gardens would be prepared to meet any recurring expenditure involved in connection with the training of candidates nominated by them. The Government of West Bengal was also interested in establishing Nurses Training School at which some 120 trainees from North Bengal would be accepted every year. The training course would be for two years and if tea gardens were prepared to meet half the cost of training amounting to Rs. 70 per month of each of the candidates nominated by them then half the seats at the courses would be reserved for the tea industry. [92]

From 1935 the tea gardens under the banner of the DBITA (Duars Branch of Indian Tea Planters Association) subscribed every year to the Jalpaiguri Hospital at the rate of 3 per acre .But after 1950s they understood that the strategic position of Jalpaiguri was not suitable from the point of view of medical facilities. Because its distance from all the gardens of the Duars was not the same.[93]Thus in 1955 the tea gardens in the Duars began to subscribe towards the Duars Hospitals fund at the rate of 3 as in acre and the donation money was divided between the Jalpaiguri and Cooch Behar hospitals in proportion to the

total number of patients sent by members of the Branch to each hospital during the year. [94]

To cope up with new arrangements introduced by the Central Government, the Government of West Bengal approached the Association through the Bengal chamber of Commerce whether the Association desired to put forward names of medical officers in the tea districts in charge of hospitals or other institutions, who might be authorized to authenticate International Certificates of Vaccination and Inoculation. The Association in response to this approach published a list of names of the Chief Medical Officers of the various medical practices in the tea districts of West Bengal who were also certifying surgeons under the Factories Act, 1948.

The first phase of the Association's campaign to increase resistance against tuberculosis among tea garden labour in West Bengal by means of B.C.G vaccine was concluded early in 1952 under the management of the Ross Institute of Tropical Hygiene. From then a team had been touring all members estates once more in order to follow up the original campaign by testing and vaccinating, if necessary, new arrivals. Inspite of many difficulties in communications and also in arranging for the supply of vaccine from Madras by air, about 66,248 labourers were tested and 28555 number of labourers were vaccinated at the end of the year. [95]

After the Second World War steps were taken to modify the medical services of the tea industry. The recommendations provided numerous planters and doctors, were completely combined into a comprehensive note by Mr. P.J. Griffiths, the Association's adviser. The note recommended the "drawing up of minimum standards for tea garden and group hospitals and the establishment of a medical service for the industry with standard conditions of service , centralized recruitment and a system of promotion for medical officers within the service". [96]

In 1959 the government's objective was to spread the National Malaria Eradication Programme to the tea districts. But initially the intention of the government was not so broad. It did intend to provide the spraying programme excluding tea gardens and to limit their services only to the surrounding country side and to those gardens which in the past had been taken no malaria expulsion measure. As the decision was not good for most of the gardens ,the Indian Tea Planters' Association requested the government to reassess the matter .

But at a meeting under the supervision of Dr. Gilroy, held in April 1959 between the Director, National Eradication Programme, the State Malaria Officers and representatives of the Association, the government agreed that tea gardens should be given the option of carrying out their own spraying operations, of receiving supplies of D.D.T from government, which they could apply themselves, or of having their spraying programmes taken over. [97] A refresher course for Assistant Medical Officers was held in the Duars in February, 1960 and was attended by a large number of doctors. [98]

In most of the gardens the labourers adopted the Christian religion.Apart from spreading Christian religion among the labourers the Christian missionaries also worked for the expansion of western medical believes and practices among the workers. But their activities did not bring so much effective results. The labourers had more belief towards their own traditional medical believes and practices. Though the workers belonged to different ethnic groups but there were some common features among their medical practices. They always believed that the causes of illness and treatment of disease had a direct link with the super-natural power. Their traditional system of medical beliefs and practices was often based on magic and sorcery.

The workers had apathy towards accepting western medicine for many reasons. Some of them were even against the spraying of D.D.T inside their

quarters on the ground that bugs would increase. A section of workers had sacred rooms in their houses. Those rooms were preserved for their forefathers and there spraying of D.D.T was prohibited. They also opposed the steps to inactive the worms because the worms were necessary for digestion and also keep the heart beating normal. Their abhorrence towards vaccination of children was due to the fact that through vaccination they would be attacked by fever. [99]

The labourers were unwilling to visit the health centres because in many cases the doctors were not sufficiently qualified. The seriously ailing patients were regularly sent to district hospitals for better treatment. The most essential medicines were also frequently not available in the garden hospitals. [100]

The tea garden labourers were not health conscious. They could not also live in a clean environment. Thus they had to become victims of various diseases. Mainly illiteracy kept them far from doctors and hospitals. Deep attraction towards herbal treatment and occult methods also increased the distance between the labourers and western method of treatment. But the irony of history is that before the labourers did not go to the health centres out of fear or their blind faith towards sorcery. But later on when they started to visit the health centres, there were scarcity of efficient doctors and medicines also. Thus in reality the tea garden coolies were always deprived of taking the benefit of western medicine . The health system of the tea gardens was not similar. Some where it was developed but some where nothing was there.

According to the Plantation Labour Act, 69 of 1951,in every plantation medical facilities would be provided and maintained so as to be readily available such medical facilities for the workers and their families as might be prescribed by the State Government. But in spite of such Act all plantations were not found to provide such essential services equally to their workers.

The health policy of the tea gardens was incomplete, defective and not beneficial for the labourers. A significant reason for it was that the health policy was formulated by people who had no knowledge, training or experience in health problems. So long-term health planning was not adopted. The health policy mainly was in the hands of the individual managers to a very great extent. The majority of the managers were paid on a basis of a fixed salary and they also got the percentage of profits of the industry. Thus the managers always tried to reduce the expenditure on health policy. The tea companies were so much interested on short term policy that in one of the gardens of the Duars a company had spent over 1000 rupees on expensive treatment for one of their labourers suffering from an unknown medical complaint. But it refused to make an arrangement of a water point inside their garden hospital, although that would probably had been repaid a thousand fold in a very few years.

After independence in 1947 the European planters were replaced by the Indian planters in the tea gardens of North Bengal. They understood that the tea garden labourers got legal rights by the Plantation Labour Act in 1951. The right was so widely extended that they no more could run the gardens by mere exploitation, torture and enslavement. During the British period or pre- 1947 period two- third tea gardens were under British control and one third tea gardens were Bengali dominated. But after partition the Bengali tea planters began to sale their gardens. The Bengali entrepreneurs were gradually removed from the scenario of the tea gardens and came the business community of western India. The Marwari tea planters did not invest the money of the profit from the tea gardens for the betterment of the tea gardens. Their imperialism was not at all better than British colonialism. Group hospitals were closed . In some gardens health centres were also withdrawn. In 1959 it was found that out of 960 hospital to be provided, the gardens had only made 695 beds. Among 25000 brick houses to be constructed, by the end of 1959 only 6773 gardens were built. [102] The annual medical expenses were synchronized. The death rate of the labourers due to various diseases were appalling.

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