Contagion and Enclaves

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In nineteenth-century medical, management and official discourse, the foothills of the Darjeeling (and the plains beyond), Terai and Duars were represented as sites of disease, fevers and fatalities. Malaria and blackwater fever, a particularly vicious form of fever, were widely prevalent among the planters as well as the labourers, although the indigenous Mechis were supposed to have been immune from them. This chapter studies a particular historical moment in the formation of the plantation enclave, when its modes of functioning were challenged by a team of malariologists who were commissioned by the government of India to find out why malaria and blackwater fever were endemic to the plantations and to advise how to control the diseases. The medical experts’ recommendations challenged the recruitment system, wage structure, and finally, the planters’ autonomy within the plantations. In the time of interventionist external medical surveys and malaria research in the twentieth century, the modes of functioning of the plantation enclave were challenged. These surveys identified that diseases in the plantation system were due to the systems of recruitment, wage structure, and the autonomous paternalism of the planter class. In response, the planters provided an alternative vision of the ‘moral economy’ of the plantation system within which disease medical infrastructure and the livelihood of labourers could be managed by the paternalistic planter. The government’s response was to compromise and impose a legislation that broadly confirmed the planters’ vision of their enclaves.

In 1906, the government of India appointed a survey by expert medical authorities to look into the causes of and suggest methods for controlling fevers, particularly blackwater fever, which had recently caused several fatalities among the planters in the region, the consequence of a petition by the Dooars Planters Association (DPA) to the government of east Bengal and Assam. The resulting Christophers–Bentley report challenged the very foundations of the political economy of the plantations in the Duars and, by extension, all
of northern Bengal. It dismissed the miasmatic theories of local disease and instead recommended that the plantations initiate a system of recruiting indentured labour that would enable the government to inspect their labourers for disease and intervene in the case of epidemics. It claimed that the remuneration to the workers was inadequate and the system of disbursing it through the recruiter-foremen (sardars) was responsible for keeping the workers vulnerable, malnourished and indebted. It argued for greater direct intervention by the state to control disease within the plantations. Effectively it challenged the ideological framework of the plantation enclave in northern Bengal and aimed for a dilution of the planters’ autonomy through increased government intervention.

The planters and the district administration (which supported the planters’ autonomy, although the government of India took a different view) lobbied the provincial government against the controversial report, and commissioned a committee to counter the recommendations of the Christophers–Bentley report and asserted the paternalistic rights of the plantation management (instead of the colonial state) over the labourers and within the plantation enclaves in their entirety. Eventually there was a compromise, with the provincial government on the recommendation of the district administration agreeing to limited legislation to increase the scope of intervention within Duars. But the Terai and Darjeeling plantations remained exempt. The implications of the two contending perspectives on the management of disease within the plantation enclaves were to resound for a long time in government policies as well as public debates.

The provincial government and the managements of the plantation enclaves reached a consensus that allowed for a limited government medical inspection within the plantations and agreed on occasional interventions by medical experts on invitation. These were negotiated through the political minefields of government policy, fear of nationalist (and later communist) politics, and the powerful tea lobby in Calcutta and London. From this point onwards, due to the limits of government influence, however partial, and medical intervention, the plantation enclaves no longer remained insulated from international medical curiosity and attention. This was not unique to northern Bengal. In contemporary Ceylon, Malay Straits and British Guyana, international medical experts and private health agencies pursued parasites and vectors that carried disease which affected the productivity of the labour force.1 These were best achieved

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1 The Rockefeller International Health Board initiated anti-hookworm campaigns in plantations in Ceylon and Darjeeling. It was not successful, but the initiatives underlined the plantations as the chosen sites for the implementation of Tropical Medicine. It also initiated campaigns against yellow fever and malaria in the Panama Canal, and in Egypt along the Suez Canal, sites where disease was seen to lead to ‘unproductive’ labour. See John H. Farley, To Cast Out Disease: A History of the International Health Division of the Rockefeller Foundation (1913–1951) (Oxford, Oxford University Press, 2004). The Liverpool and Calcutta Schools of Tropical Medicine trained British plantation doctors in anti-malaria techniques and sought their sponsorship for malaria research. See H.J.
within plantations, the quintessential enclaves where Tropical Medicine found its richest research sources and fields of experiment. This chapter will discuss this moment of confrontation between medical experts and the colonial state and plantation management in order to analyse how this affected the insularity of the plantation enclaves and disease management within.

The Christophers–Bentley Report

In 1906, a number of planters in the Duars died of blackwater fever, which was associated with malaria in some form. One estimate put casualties in 1906 at ten per cent of the ‘resident European planting population’. J.A. Milligan, the settlement officer then engaged in the revenue settlement and survey of the district, noted that one of his first duties on arriving in Jalpaiguri in 1906 was to attend the funeral of a planter, and that ‘this experience was repeated at short intervals during the fall of that dreadful year 1906’. According to him this was the turning point when the planters realized that they needed expert medical advice to counter malaria and other fevers in the plantations instead of resigning themselves to disease and death as a matter of course. By 1906 Ross’s discovery of the mosquito as the malaria vector was widely disseminated, and in fact the Royal Society sent a Malaria Committee to endemic sites of the disease in Africa and India at the turn of the century. Tropical Medicine encouraged optimism for a long-term solution to morbidity and mortality in febrile but productive areas in the tropics. The planters now petitioned the government for a thorough assessment of malaria and blackwater fever in the Duars. Appointed by the government of India, the committee consisted of two members: Christophers and Bentley. Christophers, IMS, was a prominent malarialogist who had been a member of the Royal Society’s Malaria Commission in India in 1901. He later supervised the infamous experiment on malaria control at Mian Mir in the IMS. Bentley, also of the IMS, had served in Assam

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2 For Rockefeller health campaigns in Ceylon, see Soma Hewa, Colonialism, Tropical Disease and Imperial Medicine: Rockefeller Philanthropy in Sri Lanka (Lanham, University Press of America, 1995).
5 Milligan, Final Report, p. 15.
6 Government of Bengal, Municipal/Sanitation Proceedings, March 1907 (WBSA), p. 1 of B Proceedings Index. See also Grunig, Eastern Bengal, p. 47. For the agreement on the part of the government of India that the matter may be ‘entrusted to the Central Research Institute assisted by an Advisory Commission of selected officers’, see Government of Bengal, Municipal/Sanitation Proceedings, May 1907, p. 1 of B Proceeding Index (WBSA). For the expectations of the DPA that the report would lead to solutions for the prevention of malaria and blackwater fever in the region, see Address of Chairman, DPA, at the Annual General Meeting, 8 Feb. 1909, DPAAR, 1911 (Calcutta, 1912, APAC), p. ii.
and acquired experience of medical practice in the tea plantations there. He later went on to become the Sanitary Commissioner of the undivided province of Bengal and, after the provincialization of the health service, the Director of Public Health in Bengal, an influential position he held for several years.

Christophers and Bentley produced two reports after their visit to the Duars: one on malaria and the other on blackwater fever in the area. Although their brief was to study two specific diseases, their reports took a broader view of disease in the plantations. These were the first comprehensive surveys of disease among the workers as well as the managerial staff in the tea plantations in northern Bengal. Their reports, particularly the one on malaria, challenged the climatic and the miasmatic concepts of disease and instead laid the responsibility for disease and malnutrition among the workers solely on the structure of the plantation economy of the region itself. In the process they indicted the management of the plantations for the neglect of the labourers’ health. While they made several suggestions for the prevention of malaria and blackwater fever among the managerial staff, their report linked disease among the workers directly to poverty and destitution; to the system of wages and labour control within the plantations.

This approach created a point of crisis in the system of labour management, particularly for the Duars planters, but also, by implication, for the entire tea plantation area of northern Bengal. In response, the government of eastern Bengal and Assam instituted the Duars (Monahan) Committee whose report provided a point of resolution for this crisis in the plantation system. This chapter explores the negotiation between the two contending interpretations of the plantation system. Both the Christophers–Bentley and the Monahan reports attempted to understand the nature of disease and workers’ welfare in the Duars plantations but they differed in their understanding of where the responsibility and agency for that management should remain – with the state or the planters. Both reports ultimately claimed paternal jurisdiction over the workers’ welfare – that of the government or of the planters. The differing visions of the two contending reports, concerning the economic and social structures, directly impacted on medical practices and policies within the plantations.

Free versus Indentured Labour: The Medical Dimensions

The first characteristic of the plantation system that Christophers and Bentley observed was that in the Duars (as well as in Darjeeling and Terai), labour was free; that is, they were not under a contractual agreement. There were several reasons for this. In Darjeeling, recruitment was done through sardars (contractors) from eastern Nepal and a similar system prevailed in Terai. Apart

7 Christophers and Bentley, *Malaria in the Duars*, pp. 42–64.
10 In the Darjeeling and Terai plantations, too, the management recruited through the
from some numerically insignificant Nepali (Paharia) labour, the Duars plantations recruited from the same areas as Assam: their labourers comprised indigenous peoples from the Chotanagpur and Santhal Pargana areas of Bihar, and were mostly Oraons, Mundas and Santhals. They were collectively known as Madesias. By the time of the expansion of tea gardens in northern Bengal, the indentured system of labour in Assam had acquired great notoriety. The penal clauses for breach of control led to many abuses on the part of the planters. It also initiated nationalist criticism for the first time.\textsuperscript{11} The contractual system in Assam was designed to provide the planter with wide-ranging powers of detention and resulted in a power equation quite hopelessly in favour of the planters. Simultaneously it provided, at least on paper, through legislation, certain safeguards for the workers while they were travelling to Assam, as well as during the period of their contract. This included a system of registration of vital statistics as well as provision for regular inspections by the government. These were generally carried out by the civil surgeons of the respective districts through the medical department of government.\textsuperscript{12}

The system of ‘free’ labour was indeed important to the planters in northern Bengal as it forestalled government intervention within the plantation enclaves. In the absence of a penal contract the colonial state would not intervene in the recruitment process or enquire into the labourers’ condition once they reached the plantations. For instance, the Assam Labour Enquiry (1895) reported that since labour in Duars, Darjeeling and Terai was free, it was not necessary to legislate for their health or well-being.\textsuperscript{13} This system facilitated, moreover, the flow of Madesia workers to northern Bengal, especially because it was located nearer to the catchment areas of the Santhal Parganas and Chotanagpur than Assam. Recruiters found it easier to transport them in large numbers. In 1895 the Settlement Officer of the Western Duars noted that workers with their sardars who were bound for the Duars and Terai were sometimes intercepted and coerced into agreements (contracts) by the arkatis, commissioning agents for the less popular tea gardens in Assam.\textsuperscript{14} In 1904, an investigation into the recruitment of labourers in India and Ceylon emphasized that the planters in

\textsuperscript{11} After several allegations of ill-treatment of Assam tea labourers, the nationalist Indian Association sent their representative Dvarkanath Gangopadhyaya to tour a few tea estates in Assam in 1886. He published his findings of violation of contract and abuse of labourers over 13 articles in two periodicals, \textit{The Sanjibani} and \textit{The Bengalee}, in 1886–87. See Dvarkanatha Gangopadhyaya, \textit{Slavery in British Dominion} (Calcutta, Jijnasa, 1972).

\textsuperscript{12} \textit{RCLI}, p. 417.


northern Bengal preferred to function outside a contractual system of recruitment.\textsuperscript{15}  

The crucial point the Christophers–Bentley report made was that there were no reliable statistics for the numbers of immigrant labourers in the plantations, creating an ‘example of the working of the special system of labour peculiar to itself’.\textsuperscript{16} Government therefore had no means of ascertaining the numbers or the vital statistics of the people working and residing within the plantation enclaves in Darjeeling, Duars and Terai. Although some plantations maintained records of births and deaths, Christophers and Bentley concluded that they were inadequate and incomplete, and even ridiculous because occasionally they ‘compared favourably on paper with some of the healthiest communities in England’.\textsuperscript{17}

Christophers and Bentley sought to ‘standardize’ labour management into the indentured format, and were the first government representatives to emphasize the need for a system of registration of vital statistics within the plantations, with the government inspecting the results. Why was the registration of vital statistics considered so crucial? The system of free labour that had developed uniquely in the Darjeeling foothills posed difficulties for existing international medical expertise and state policies within the more commonplace nineteenth-century institution of indentured labour in colonial plantations in Ceylon, Assam, the Malay Straits, Mauritius, South Africa and the West Indies.\textsuperscript{18}

Christopher and Bentley, were concerned that ‘since the labour force forms only a fraction of the total coolie population on a garden, a large number of the latter are not registered in any way and their sickness or death entails no responsibility upon anyone’.\textsuperscript{19} Moreover, any worker who due to sickness or for any other reason would remain absent from the rolls of a tea estate would be struck off after one month. Such workers might still be resident within the tea estates, suffering from long illnesses, but they were ‘to a large extent lost to sight’.\textsuperscript{20} The lack of indentured labour entailed, they insisted, a floating population of migrant workers who were not only afflicted with disease themselves, but who also formed a mobile reservoir of disease which could spread to the entire district and even the entire province.\textsuperscript{21} A few years previously, a report commissioned by the Assam government had noted the large number of temporary workers in Duars – in 1902 the number (provided by the

\textsuperscript{15} Arbuthnott, \textit{Report}, p. 5.
\textsuperscript{16} Christophers and Bentley, \textit{Malaria in the Duars}, p. 42.
\textsuperscript{17} Christophers and Bentley, \textit{Malaria in the Duars}, p. 109.
\textsuperscript{19} Christophers and Bentley, \textit{Malaria in the Duars}, p. 43.
\textsuperscript{20} Christophers and Bentley, \textit{Malaria in the Duars}, p. 45
\textsuperscript{21} Christophers and Bentley were, however, not the first to observe that newly immigrant labourers and children suffered more than the old immigrants in the tea districts. The point had been made two decades earlier in the context of immigrant indentured labour in Assam. See \textit{Special Report on the Working of Act 1 of 1882 in The Province of Assam during the Years 1886–1889} (Calcutta, Superintendent of Government Printing, 1890, APAC), p. 253.
plantation managements) was estimated at 38,218 out of a total workforce of 61,784.22 ‘Floating’ workers represented the danger of transmission of diseases on an epidemic scale. Therefore, Christophers and Bentley were not arguing for dismantling the plantation enclave; rather, they argued that the plantations must reinforce their boundaries, keep an account of the numbers of workers and furthermore record their vital statistics. The planters felt challenged because ‘free’, non-contractual labour absolved them of responsibility for the workers resident within the plantations. Moreover, any compulsory record-keeping would also render them open to government inspection.

Planter as the Provider: The Moral Economy of the Plantation Enclave

The Christophers–Bentley report raised another point: that the system of recruitment, pay and work in the plantations led directly to a cycle of impoverishment and disease. In northern Bengal unlike in Assam, the sardars were also the foremen who distributed work and pay among the labourers. This sustained the hierarchy between the sardar and ‘his’ workers within the plantation enclaves. After a few years, some labourers were able to save money and settle outside the tea plantations as cultivators; yet others supplemented their incomes by buying and then hiring out their bullocks for carting. They argued that such signs of prosperity among the workers were limited to a few only, mostly sardars, or their assistants.23 Meanwhile newly immigrant workers were the most vulnerable to disease, partly due to lack of adequate food and nutrition. The medical experts attributed inadequate nutrition (inadequate in the sense that they perpetuated unproductive capacity) to the sardari system of labour in the Duars. This sardari system was the common method of recruitment in India’s manufacturing centres particularly in the jute industry as well as in the tea plantations. It relied on clan networks to draw in dispossessed or landless peasants who would migrate on a temporary or permanent basis.24 In northern Bengal, the plantations paid the sardars a certain sum for every worker that they recruited; anything between two and five rupees.25 They were also paid a small amount, a pice for every day’s work (haziri) done by each of the

23 Christophers and Bentley, Malaria in the Duars, pp. 61–62. The RCLI pointed out in 1931 that not all workers had access to land for cultivation.
24 The dependence on the sardari system both for recruitment of labourers and for their supervision in the daily work regimes in the plantations continued even after 1924, when a separate branch of the Tea Districts Labour Association (TDLA) was formed in order to recruit for the planters in the Duars. See ITAAR, 1921 (Calcutta, 1922, APAC), pp. 32–33. The TDLA was originally formed by planters in Assam to facilitate centralized recruitment. The Duars branch of the TDLA used garden sardars for recruitment in the Chota Nagpur and Santhal Parganas areas, which were its ‘traditional recruiting districts’. It used paid recruiters for new recruiting areas such as the Madras Presidency. Griffiths, History, pp. 284–86.
workers they had recruited. In some plantations (possibly the newly opened ones which did not already have a substantial settled community of labourers) the sardar’s commission was two pice. The plantation management also gave the sardars a sum of money to advance as a loan to newly recruited workers, who used it to pay for their journey to the tea district and for subsistence in the initial weeks. The entire system relied on the sardars providing, through the planter, for the various requirements of every worker that he recruited and supervised in the plantations. This system enabled the planters to transfer the responsibility for the labourers to the sardars, while retaining their status as the ultimate providers and arbiters of justice. The dependence on clan networks carried an implicit notion of a moral economy sustaining a hierarchical, quasi-feudal relationship between the sardar and his gang, in this case, emulating the colonial system of the manager (burra sahib) at the top of the hierarchy. This particular moral economy was a construct, and a new one. The coexistence of the feudal and colonial capitalist system was as new as the system of work and recruitment in the tea estates, a social and economic relationship created out of the plantation economy system.

Christophers and Bentley argued that the system depended too heavily on the assumed benevolence of the sardars: ‘the real conditions are unrecognized. The relation between the sardar and his coolies are on a much less philanthropic footing’. From a medical point of view, they found little to recommend it. This intervention by Christophers and Bentley was on the principle that the supervisory position of the state would help to rationalize the wages in the plantation system. Nutrition for the workers was important for their productivity; ‘Perhaps there is nothing of more vital importance to the members of a community than that they shall obtain a physiologically adequate dietary … proportionate to the amount of physical work expected of them’. The process of government intervention to ensure fair wages was one which substituted the paternalism of the planter with that of the state. It is another matter that the example of Assam was not necessarily the most pertinent demonstration of the paternalism of the state, because the neutrality and accuracy of the government inspections had been in doubt from the time the Indian Association sent its first delegate to the tea plantations in 1886.

Christophers and Bentley recognized that the economy of the plantation system left the sardars with little alternative but to coerce the labourers to work even when they were too ill to work, because in the case of illness or death, the

26 Arbuthnott, Report, p. 2.
27 The Royal Commission on Labour found the system unchanged in 1931, RCLI, p. 415.
28 Christophers and Bentley, Malaria in the Duars, p. 44.
29 Christophers and Bentley, Malaria in the Duars, p. 5.
30 Gangopadhyaya, Slavery, pp. 33–35.
advances made to the sardars were called in by the management: workers’ debts were to be accounted for by the sardars. Nor was this unique to the Duars. In Darjeeling, the advances to workers were dispensed through and recovered from the sardars: ‘The cooly looks to the sardar for an advance, and the sardar to the manager.’ In Terai as well, a similar system of organizing labour prevailed. W.M. Fraser, a planter who initially worked in Sylhet and in 1895 moved to a tea plantation in Terai, pointed out the role of the sardar in Terai:

It was all very different from Sylhet, where every coolie was a unit. Here the unit was the sirdar. He it was who got the advance in money that brought the coolies in, and the whole of the pay earned by his people was handed to him. The coolies were in debt to the sirdar and the sirdar to the garden, and the only security the latter had was the presence at work of the coolies.

Even before the Christophers–Bentley report, the Arbuthnott report had noted that in the Duars, the sardars had no security for the money loaned out to workers, and that the tea gardens considered them liable for any loss. It was in the sardar’s interest to see that ‘his’ labourers worked every day and that there existed a system of intelligence through which a sardar could locate an absconding labourer in any tea plantation. The sardars and the workers, the Christophers–Bentley report emphasized, were trapped within a relentless system of debts and coerced labour, because the final responsibility for the workers did not rest with the tea plantation management, but with the sardars. Christophers and Bentley had pointed out an essential contradiction in the paternalism of the plantation system. The planter, although symbolically the mai-baap (feudal lord), was ultimately not directly responsible for the labourers’ welfare. The system ensured that the planter remained at a distance, while the sardar, who had limited resources, had the burden of the labourers’ welfare. This misplaced responsibility was of course a direct contradiction of the claim of paternal benevolence that the management of the tea plantations assumed with respect to the workers; a claim that gained in certitude and legitimacy throughout the colonial period. The system evidently continued long after the Christophers–Bentley’s report was published, and the Royal Commission recognized that the system was ‘fraught with danger to the labourer, who is frequently in debt to his sardar’.

The third intervention by Christophers and Bentley was on the inadequacy of the labourers’ wages. The working day in each tea estate was divided into two daily tasks – the hazira and the ticca. The hazira was the first work of the day, and ticca (or doubly) was the second, theoretically optional task. Ray has shown that the ticca or the doubly was not really optional. It comprised the essential task of the day for most workers. See Ray, Transformations, pp. 104–6.

31 Arbuthnott, Report, p. 3.
32 O’Malley, Bengal District Gazetteers, p. 84.
33 Fraser, Recollections, p. 51.
34 Arbuthnott, Report, p. 3.
35 Arbuthnott, Report, p. 3.
36 RCLI, p. 399.
37 Ray has shown that the ticca or the doubly was not really optional. It comprised the essential task of the day for most workers. See Ray, Transformations, pp. 104–6.
first tasks varied according to the season, being the heaviest during the peak monsoon months. The men were generally given the heavier tasks of hoeing and digging, and the women and children did the plucking. Women were also allocated lighter hoeing and pruning tasks. In the winter, between November and February, work was easier and consisted of digging and clearing the trenches and drains, and some pruning.

According to Christophers and Bentley, the workers’ wages were below the level of subsistence. Their perspective on subsistence was clinical: food available to the working population, they believed, should be proportionate to the amount of labour they were to expend. The average monthly pay of a coolie that the managers claimed to pay was Rs 6 for a man, Rs 4–8 for a woman, and Rs 2–8 for a working child, and these would not be sufficient to supply adequate nutrition, even compared to a famine code recommendation. After an inspection and a survey of local prices, they discovered that the real purchasing power of the wages they earned was much less than what the planters had suggested.  

This contradicted all assertions by planters, who generally claimed that their workers were prosperous, able to save when they were thrifty, and thereby either move out and settle outside the tea estate as tenant-cultivators or buy bullocks, goats and even cultivable land with their savings. The planters argued, too, that the workers who were not able to save were either indolent or wasted their money on drink.

It is difficult to estimate the real wages of the labourers throughout the colonial period because the workers survived not only from their wages but also by cultivating rice and vegetables in small plots of land, known as khet land. Most plantations possessed several acres of land that were not under tea cultivation, as government required only 15 per cent of the leased land to be under tea. The plantations used the excess land for timber as well as rented some of it to their labourers as khet. Many workers also provided for themselves through occasional hunting game, fishing and gathering edible roots in the forests. Their report argued that the low wages affected particularly the new immigrants who did not immediately have access to khet land.

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38 Christophers and Bentley, *Malaria in the Duars*, p. 51.
39 The Royal Commission on Labour in India pointed out that an evaluation of the concession to cultivate lands should be made, because there was a discrepancy (both in the tea estates and among labourers within the estates) in the distribution of land for cultivation: ‘some managers charge an uneconomic rent, others charge no rent and yet others have no such land at their disposal’. See *RCLI*, p. 397. The planters usually resorted to the argument that their subsistence was provided for in kind through their subsidiary occupations. This was accepted as fact. Griffiths, *History*, p. 297. Das Gupta has pointed out that the land given for cultivation was used as a means of disciplining the labourers by taking it away. See Das Gupta, ‘Exploitation of Plantation Workers, Reproduction of Labour Power and Nature of Proletarianization in North-East India’, in idem, *Labour and Working Class in Eastern India: Studies in Colonial History* (Calcutta, KP Bagchi, 1994), pp. 141–74. The plantation management admitted to the Royal Commission that they had an ‘understanding’ among their members not to raise their wages. See *RCLI*, p. 399.
40 Not all the workers had khet/bari lands for their own cultivation. They were given to some labourers on condition of work in the plantations. See *RCLI*, pp. 384–85.
Christophers and Bentley also pointed out that the workers were housed in ‘insanitary and inadequate shacks’: ‘the majority are housed in a manner at once primitive and temporary’.\textsuperscript{41} For them, the protection of the labourer under the \textit{sardar}, based on paternalistic terms, was not a foregone conclusion.

Their living conditions, Christophers and Bentley argued, led not only to a state of endemic malaria among the residents within the plantations, but also to other diseases including cholera, dysentery and ulcerated legs and feet.\textsuperscript{42} They also suffered from phthisis, which was particularly prevalent among the Paharia (Nepali) labourers. Small-pox epidemics also occurred, and infective conjunctivitis was common. At this time, small-pox vaccination was available to them but they had to pay for it themselves, which they therefore ignored.\textsuperscript{43} Christophers and Bentley emphasized the inadequacy of medical provisions, the ‘incompetence’ of the doctor babus and argued strongly for the appointment of ‘qualified’ resident doctors.\textsuperscript{44}

The Formation of the Duars Committee

The Christophers–Bentley report laid down the framework within which health in the tea plantations of northern Bengal would be analysed and reformed. The report was also strongly contested by the medical authorities, the administration and the planters themselves. Their understanding of malaria, its causation and cures apart, the authors located disease in the Duars not in the land itself, but within the economic structures of their daily lives. In identifying sanitation, proper water facilities, good housing, adequate nutrition and an effective

\textsuperscript{41} Christophers and Bentley, \textit{Malaria in the Duars}, p. 60.

\textsuperscript{42} Christophers and Bentley noted that ulcers occurred in the rainy season and could incapacitate a worker, and speculated on its bacterial origins. Like some other diseases suffered by the labours, ulcers on the legs and feet remained a constant problem, rarely addressed. In 1914, in the first annual report on the working of the Jalpaiguri Labour Act, the Civil Surgeon of Jalpaiguri remarked that the ulcers caused more sickness than malaria in the tea estates and recommended a ‘scientific enquiry’ into the ulcers and in the next annual general meeting of the DPA the chairman heartily endorsed it. See \textit{DPAAR}, 1915 (Calcutta, 1916, APAC), pp. 76 and x. Also see \textit{ARWJLA}, 1913–14 (APAC), p. 3. It was commented upon by the Civil Surgeon again in 1918–19. See \textit{ARWJLA}, 1918–19 (Calcutta, 1920, APAC), p. 4. In 1920 the newly established Calcutta School of Tropical Medicine asked the Indian Tea Association for patronage and in that context enquired into whether there were any specific diseases pertaining to the workers that needed to be studied. The DPA, after consultation with its British medical officers, who were organized in the northern Bengal branch of the British Medical Association, suggested an enquiry into the causes and cures of ulcers on the legs and feet. See \textit{DPAAR}, 1920 (Calcutta, 1921, APAC), p. 134. Ultimately, however, the DPA contributed a sum towards the study of malaria instead. See Chapter 5 for a study of malaria control in the tea estates. In 1947 the workers were still reported to suffer from ulcers and sores in their legs and feet, which had decreased from a high level of occurrence during the war years. See \textit{DPAAR}, 1946 (Kalimpong, 1947), p. x.

\textsuperscript{43} Christophers and Bentley, \textit{Malaria in the Duars}, pp. 63–68

\textsuperscript{44} Christophers and Bentley, \textit{Malaria in the Duars}, pp. 68–71.
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system of medical care as the factors that would improve the labourers’ health, they emphasized human agency rather than environmental causes as the essential causal factor of disease in the plantations.45

The sense of a crisis created by the Christophers–Bentley report resonated in both official and management circles. For the plantation management, the crisis was in the severe indictment of their labour system. They feared that when published, the report was likely to draw unwanted nationalist criticism. Even more crucially for them, the report recommended a system of governmental agency through inspection of their plantations, which had previously been non-existent. For the local and provincial governments the report was highly embarrassing as well, because it indirectly held the government responsible for the sorry state of affairs within the plantations. It also led to a situation where the government would have to confront the planters, thereby destabilizing a status quo more or less maintained between British industry and the colonial government. The managing agencies which owned most of the larger plantations in the Duars also controlled most of the British capital in eastern India in the jute and mining industries. The tea lobby exercised a strong influence on government policy. Finally, and for the government probably the most awkward consequence of the report, it contradicted the stated policy of the government in which indentured labour was to be gradually phased out in Assam and a system of free labour installed in its place. This was to be the pattern, too, in all other plantation areas in South Asia.

Almost inevitably, therefore, the government did not publish the Christophers–Bentley report immediately. The government of India asked the Sanitary Commissioner of India if it ought to be published at all, and he replied that the government could not possibly avoid publishing the report, but since ‘the report if published is likely to lead to a good deal of agitation’ the government should take action to counter it before it reached the public domain.46 The Secretary to the Home Department of the government of India also thought that the ‘planters won’t like the remarks on the arrangements in the Duars, but the inquiries were started at their instance and they will have to be supplied with the report’.47 Everyone in government agreed that the report put the govern-


47 Memo of Secretary, Home Department, 18 Aug. 1909.
ment ‘in a very embarrassing position’, especially because it had committed itself to a system of non-contractual labour in the plantation for the future.\(^{48}\) In private, government officials in Delhi conceded that the wages of the plantation workers were insufficient in both northern Bengal and Assam.\(^{49}\)

Meanwhile the provincial government, confronted with the report, summoned a meeting of senior officials to discuss its strategy.\(^{50}\) The Deputy Commissioner of Jalpaiguri showed a copy of the preliminary report to the chairman of the DPA, and a copy was sent on to the ITA in Calcutta. After deliberations the provincial government sent a strongly worded letter to the government of India, particularly defending the planters’ benevolence and the sardari system of labour:

> The Lt. Governor is of the opinion that authors of the report … have overstated the facts … the amount of sickness and mortality among the new coolies was perhaps due to their low physical condition on arrival and not to the sardari system of labour, and that in the absence of more convincing arguments the Lt. Governor cannot abandon the opinion hitherto held that the sub-Himalayan tracts are intrinsically unhealthy.\(^{51}\)

Once it came under pressure from the tea lobby and the provincial government, the government of India agreed to commission another enquiry committee to review the Christophers–Bentley report, and this time left its membership to the provincial government. It also agreed not to publish the Christophers–Bentley report until the report of the new committee was published.\(^{52}\) The only dissenting note in condemning the Christophers–Bentley report and in formulating these crucial decisions was from the Sanitary Commissioner of India. He qualified his critique of the report (in the interest of medical specialization, presumably) by remarking that miasmatic causes of disease were not compatible with ‘modern preventive medicine’.\(^{53}\) Nevertheless he too recommended that the report be withheld until a new committee had examined its claims. The government of India next sanctioned a new committee to investigate medical and sanitary conditions of the tea labourers in the Duars.\(^{54}\) As it happened, the new committee – the Monahan Committee (or Duars Committee as it came to be referred to later) – submitted its report within a few months as instructed. It

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48 Memo of Secretary, Home Department, 18 Aug. 1909, p. 2.
49 Memo of Secretary, Home Department, 18 Aug. 1909, p. 4.
52 Memorandum of P.W. Monier, Secretary to Government of India, Home Department, 3 Jan. 1910, p. 2.
53 Memorandum of the Sanitary Commissioner to the Government of India, 13 Aug. 1910, p. 3.
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was published immediately by the provincial government.\(^55\) The Christophers–Bentley report on malaria was published a year later by the imperial government.

The new committee had a more local composition, being chaired by the deputy commissioner of Jalpaiguri, F.J. Monahan, and including medical officials and planters from Assam. Its brief was limited; not to challenge the causes of malaria as detailed by Christophers and Bentley, but simply to examine the standards of living among the workers.\(^56\) Its constitution differed from the Christophers–Bentley report, positing even before the enquiry began a difference between the perspectives of the local administration and medical practitioners with knowledge of local practice and those of experts from outside. The inaccuracy of this assumption (Bentley had served in Assam) did not detract from the duality posited between outside experts and those with local knowledge. The Duars Committee emphasized two principal points in their report: first, that planters’ records and testimonies were more reliable than that of the workers, and second, that only those experts who had experience of working within the plantations could legitimately understand and report on its mode of functioning, whether they were medical men, planters or government experts.

The Duars Committee collected information from managements within the tea plantations rather than from the labourers because, ‘Any coolies brought … before a number of strange Europeans would inevitably become frightened and confused, and no information of value was likely to be obtained in that way.’\(^57\) This approach is generally representative of the managerial discourse about labour within the plantations. Infantilizing the workers and rendering their utterances irrelevant remained an enduring constant in management discourse in colonial plantations. The infantilizing of the Madesia tribes who worked in the plantations, and indeed the managerial understanding of their ‘primordial’ social relationships, religious sentiments and ways of life are reflected in almost every report on the plantations. This served to legitimate only managerial or medical discourses on their standards of life. It also justified the resistance to the introduction of any changes in their lifestyles, on the part of the management and to an extent the local administration, the justification being that it would destabilize their natural social lives, which were ‘primitive and simple’.

The other aspect was that the Committee, composed of individuals ‘in the field’ (and in contrast to the outsiders, the medical experts Christophers and Bentley), were the ones who, through an intimate knowledge of the workers, their daily lives and the cultural frameworks of their worlds, would be better equipped to translate their meanings to the wider audience of the state and central government. As we shall see, changes did occur in the system of medical care in the plantations in the colonial period. But these changes were always effected in the context of managerial assertions that no drastic changes in their

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lifestyles, including changes to their habitations, sanitary facilities and medical dispensaries, would be acceptable to the workers.

Paternalism and Local Knowledge: The Duars Committee

Unsurprisingly, the Duars Committee report contradicted most of the findings of the Christophers–Bentley report. It recognized the lack of statistics on the plantations as had Christophers and Bentley. Unlike them, it interpreted the extent of immigration far more conservatively.\(^{58}\) The report stated that the residents of the tea plantations often included relatives of the workers who were cultivators, having taken up sharecropping in the areas outside of the tea gardens, but who nevertheless lived in the tea gardens. These might include both Madesias (the Oraons, Santhals and Mundas from Chotanagpur and Santhal Parganas) as well as the Paharias (the hill-men). Therefore the tea plantations countenanced large families with ties outside the tea estate boundaries. In northern Bengal, they pointed out,

> It is to the advantage of a garden to have a large number of people who keep up a connection with it, and who, if they do not work regularly on the garden, may do so occasionally, or may attract others. In this way a large number of persons may be found living in coolie lines, who are not on the garden books and are not dependants of persons working in the garden.\(^{59}\)

The Committee acknowledged that tea estates encouraged labourers to live in the coolie lines within the boundaries of the plantations so that they would have enough people to provide the requisite labour seasonally, but accepted the managerial position that the tea estates could not be responsible for their health and well-being, because many of the residents within the coolie lines were part of a floating labour population.\(^{60}\) They justified the lack of vital statistics because it was an inevitable part of a system of free labour, a system, moreover, towards which the government had pledged its future policies. Next, the report emphasized the irreplaceable nature of the free-labour system, which hinged on the status and role of the sardar:

58 Report of the Duars Committee, p. 3. They stated that the figures of the labouring population supplied by some of the plantations (several did not supply figures because they did not keep records at all) were not useful because they did not accurately reflect the numbers of residents in the tea gardens’ coolie lines, because the ‘permanently employed represent not the total number of persons employed but the average daily muster of labourers turning out to work, which is a very different thing’.

59 Report of the Duars Committee, p. 3.

60 G.G. Webb had remarked on the easy mobility between the coolies within the plantations with their friends and neighbours outside in the bastis: ‘garden coolies when they had accumulated sufficient money used to become farmers and small holders on Government waste land. There was much coming and going between these people and their relations and friends on the Estates’. Typescript ‘Leopards’, Mss Eur C474 (APAC), p. 11.
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a sardar is the leader of coolies recruited from a certain local area ... His tribesmen live around him in the garden lines, and he holds a social position similar to that of a village headman ... He and his followers are bound together by ties of country ... and although he can usually count upon the support of the manager of the garden, his position mainly depends upon the maintenance of his popularity among the members of his own patti [gang] ... strong prima facie reasons exist why a sardar should deal justly with his coolies.61

The Duars Committee explained the charge of oppression by the sardars in terms of clan and village networks; and stressed the feudal relationship and the moral economy of the relationship, rather than the numerous instances of oppression within the plantations. They also situated any disputes between the sardar and his workers in terms of disputes between the ‘coolies’. Therefore, the position and the status of the manager retained its pristine quality, reflecting management understanding of the social relations in the plantations; the position of the manager as the fair and ultimate arbiter of justice was not compromised. It re-endorsed the role of the sardar as the first point of authority for the worker and situated the sardar as the dispenser of patronage among the workforce.62

The system of free labour, the Duars Committee argued, made necessary both the existence of a floating population, unaccounted for and beyond the responsibility of the tea gardens, as well as the crucial role of the sardar in the entire system of labour within the plantations. In effect, the system transferred the moral responsibility for the welfare of the workers to the middlemen, the sardars. It led to a situation where the reservoir of infection, any infection, within the tea gardens was finally the floating population of the bastis.

The lack of figures makes it difficult to estimate the actual number of floating workers. In fact Grunig noted in 1911 that not more than ten per cent of the working population was on the move, settled as they were in several tea gardens with their own plots of land to cultivate and also often in a state of indebtedness. He quoted from the district commissioner’s report in 1900:

a coolie has taken advances from the garden and has not repaid the money or the garden has lent him money to buy a pair of bullocks, taking the animals themselves as security. This is a very common practice. As long as the coolie remains on the garden the Manager is not likely to be hard on him, but if he attempts to leave for another garden, he could not hope for any consideration. He, therefore, is practically bound to stop where he is.63

Once it re-established the legitimacy of the system of non-contractual labour, the Duars Committee report ascribed the lack of hospitals in the Duars to cultural dispositions among the labourers: ‘caste prejudices are a great difficulty’.64 An

63 Grunig, Eastern Bengal, p. 109.
64 Report of the Duars Committee, p. 28. The Christophers–Bentley report on the other hand emphasized that ‘in our experience coolies are by no means averse to accept treatment
argument for a cultural understanding of the ways of life of the people led to conclusions about their responses to provisions for sanitary measures such as toilets and pipe wells as well as to hospitals and doctors. The report rejected the system considered in the Arbuthnott report of 1904, which commended the system then prevalent in the plantations of Ceylon where labour also was free. In Ceylon there was legislation in place to compel management to contribute towards group hospitals and medical facilities for all workers. Instead, the Duars Committee stressed that the nature of investment in medical facilities for the workers should be voluntary. Meanwhile, so far as the medical facilities were concerned, the Duars Committee agreed with the Christophers–Bentley Committee that they needed improvement; they identified the training of the resident doctor babus and the establishment of ‘branch dispensaries’ to take the load off individual doctor babus who were supposed to tour coolie lines spread over eight to ten miles each day. As for housing conditions, the Duars Committee report sympathized with the unwillingness of most plantation managements to undertake improvements in the coolie lines, attributing this to the labourers’ reluctance to live in more comfortable houses: ‘Coolies prefer to lead their own life in the lines, and strongly object to interference with their domestic arrangements.’ The Duars report borrowed from H.H. Risley’s Tribes and Castes of Bengal, a massive colonial ethnographic project, where the Oraons were described as a ‘slovenly race’ and their dwellings as ‘badly built mud huts’. Nicholas Dirks has argued that the colonial state was an ‘ethnographic state’ in the late nineteenth century, when the anthropological and official understanding of Indian social formation was reified within the caste system and, through Risley, racialized as well. Risley’s ethnographic project was to instil caste as the primary civil institution in colonial India; one that was also closely related to physical anthropology and the racial distinctions within the

65 This was most explicitly stated at the time of a campaign against hookworm started by the government of Bengal, which singled out the coal mine areas and the tea estates as the sites of examination. See speech of Chairman, DPA, in DPAAR, 1918 (Calcutta, 1919, APAC), p. x. For a discussion on the hookworm survey, see Chapter 6. When government officials recommended well-stocked dispensaries or provisions for a few hospital beds, or even piped water for the workers to prevent bowel diseases, the stock response of the planting industry was similar. For an analysis of the slow growth of medical infrastructure in the region see Chapter 6.

caste system, in which framework the tribal populations of the Oraons, Mundas and Santhals were racially condemned to the lowest status, beyond civilisation. The wide acceptance of this ethnographic formulation set indigenous tribes such as the Oraons and Mundas as uncivilized, unchanged tribal groups at the very edge of civilized Hindu society. At the same time that it recognized that adequate housing and piped water was expensive and therefore as yet unavailable, recommending provisions for ‘more comfortable housing’, sanitary facilities and piped water, the Duars Committee posited sanitary provisions as culturally repugnant and somehow alien to their labourers, and themselves as the custodians of a gradualist programme of sanitary reform.\footnote{Report of the Duars Committee, pp. 34–36.}

The Contingent Solution: Disease Control and the Enclave System

In this chapter I have highlighted the different and conflictual ideals of health care in the plantation enclaves, that of the planters versus experts in Tropical Medicine. Within the plantation enclaves, and especially in the Duars and the Terai, where the land was colonized from grasslands or forests and cultivated for the first time, disease and often death were accepted as an unpleasant but inevitable part of the process of colonization of the area. The planters dealt with disease among their labourers and themselves in the same way that they managed other necessities of life in the area. A rough-and-ready system of medical care had evolved, its chief characteristic being a great dependence on the competence and the kindness of the individual planters.

After a couple of decades, when some plantations had settled into regular production of tea with a relatively settled labouring population within the plantations, an enquiry from medical experts into the causes of fevers, the most common disease, turned unexpectedly for the planters into a critique of the entire plantation economy. Pressure from the planters and the local government led to another enquiry that was to counter the claims of the first. I have highlighted the differences between the two reports to project the divergent discourses within the colonial order so far as plantation health was concerned. On the one hand there was a committee of experts who spent four months in the area, focusing intensely on two specific diseases and intent on their resolution. The resolution they proposed was one of more active government agency within the plantations. Their recommendations were for a set of policies that combined a system of registration of immigration, and adequate legislation that would enable periodic government inspections, keep count of immigration into the district and attempt to impose the rule of law by the substitution of the paternalism of the state for paternalism of the planter.\footnote{Das Gupta has shown that in the coal mining area of Asansol where such government supervision was in existence, the sanitary and medical provisions for the workers were ‘absent or inadequate’. See R. Das Gupta, ‘Migrants in Coal Mines: Peasants or Proletarians, 1850s–1947’, Social Scientist, 13 (1985), pp. 18–43.}
other hand, the Duars Committee Report represented a closer alliance between the local administration and the planters. Imbued with the topos of the men on the spot, they professed an intimate knowledge both of the area and the peoples who worked in the plantations. In effect their report distanced itself from what they perceived as a clinical, impersonal understanding of health in the plantations. Instead, they posited an alternative view. It was one, they argued, that was enriched by cultural understanding of their labourers and at the same time cognizant of the logistic and economic limitations on the management. Their report delved deep into colonial structures of knowledge and borrowed extensively from colonial ethnography of tribal peoples to reinforce the notion of the workers in Assam. This committee conferred with the managers and assistant managers for informed knowledge about the culture and ways of life of the labourers. 73 The outcome was a much more contingent solution.

Yet the Duars Committee report was no mere refutation of the Christophers–Bentley critique: the two reports had a great deal in common in their advocacy of sanitary facilities and living space within the plantations. Thus the conflict in the divergent discourses of the two reports were between two interpretations of the responsibility of the planters; one, that of the experts from outside who thought of the planters as capitalists who had ultimately to retain and sustain productive labour, the role of state being to oversee the welfare of the labourers. The alternative view was articulated by the plantation doctors and the local administration that saw labour welfare in terms of paternalistic benevolence and the occurrence of diseases a problem of the peculiarities of location. In the process, they categorically denied that the workers were ill-paid, attributing some of the obvious malnourishment either to their state of impoverishment prior to arrival or to the uniquely high price of foodstuffs in the particular year of Christophers–Bentley’s survey.

Both the reports contained certain sites of consensus; one was the general incompetence of the resident doctor babus; another was the need to invest in

73 The inspiration for this view of the reification and of the essentialization of the customs and culture of Indian communities in the British period is Edward Said, Orientalism (London and Henley, Routledge and Keagan Paul, 1978), and Nicholas B. Dirks, Castes of Mind: Colonialisma and the Making of Modern India (Princeton, NJ, Princeton University Press, 2001). Almost every planter’s memoir resonates with many instances of the reification of the labourers’ culture as well as their infantilization. For one such instance, see the interview with William Webb, Mss Eur R 187 (APAC). In 1911, in response to a government resolution on compulsory education, the DPA announced that ‘the Association does not approve of the principle of compulsory education … and considers that any attempt at compulsory education of coolie children is unlikely to be successful or to produce beneficial results commensurate with the disturbance of ancient customs involved’. DPAAR, 1911 (Calcutta, 1912, APAC), p. iv. Nor was this infantilization and primitivization limited to the European planters. The Indian planters generally made similar arguments. When the first labour seat was proposed by the GOI in 1933 for the 1935 Provincial Assembly elections, the Dooars Planters’ Association, the Darjeeling Planters’ Association and the Indian Tea Planters’ Association protested on the grounds that the labourers were simple and ignorant people incapable of comprehending or appreciating democratic representation. See DPAAR, 1932 (Calcutta, 1933, APAC), pp. 112–15.
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long-term medical infrastructure, including dispensaries and qualified doctors, safe sources of water supply to prevent cholera and the gradual introduction of quinine for the workers. The planting industry was quick to formally endorse and publicize the distinction that the Duars Committee made between the economic status of the workers and the sanitary state of their living conditions. While they were willing to admit deficiencies in the latter, they unwaveringly defended the adequacy of the former. The Duars Committee strongly argued against legislation of the kind in effect in Assam, which would bind the labourer in a penal contract and simultaneously make the management responsible for the health care of its labourers.

In response to the reports, the provincial government proposed legislation where the tea estates would submit vital statistics of their labourers. These would be checked by the Civil Surgeon of the district, who would also conduct a minimum of 60 annual inspections among the tea estates and make recommendations for the improvement of the sanitary and medical conditions. But his recommendations would be classed as ‘suggestions’ and therefore would not be compulsory. It did not provide for government control over the recruitment process, or lay down regulations for the establishment of dispensaries, hospitals or sanitary facilities. It proposed to implement this initially in Western Duars for a term of five years, and then to extend provisions to the plantations in Darjeeling and Terai. The government of Bengal passed the Jalpaiguri Labour Act in 1912.

The conflict between the divergent visions of health care within the plantation enclave resulted in an uneasy, contingent resolution. But from this time, the plantation enclaves were firmly within the remit of international medical attention from specialists of Tropical Medicine. They provided the sites for the study, prevention and cure of various ‘tropical’ diseases including malaria, hookworm, kala-azar and leprosy in a relatively controlled environment and on supposedly quiescent residents. Government intervention increased as well, although the supervision of the district administration over the plantation enclaves was cautious and sporadic. Nevertheless, in the next 40 years, the plantations oversaw, with government encouragement and resources, researches and preventive and curative projects on malaria, hookworm, leprosy and dysentery by medical experts from London, Liverpool and Calcutta. They also carried out, with varying degrees of tenacity and success, measures to prevent infant mortality, encourage reproductive health and provide basic sanitary facilities for the labourers within the plantation enclaves. The plantation enclave was now firmly on the horizons of the colonial state as well as of Tropical Medicine, and was set as one of the sites of the circulation of scientific and medical knowledge creation and diffusion.