

## THE HOOKWORM EPIDEMIC ON THE PLANTATIONS IN COLONIAL SRI LANKA

by

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The history of disease and health in colonial Sri Lanka has been largely ignored. Historians of colonial economic and social policies in that country have produced a deluge of materials without mentioning the impact of colonial labour policy on the health of the indigenous people.<sup>1</sup> Meanwhile, even those who have written on the history of medicine in Sri Lanka have not fully accounted for colonial labour practices that had a significant impact on health.<sup>2</sup> This conspicuous neglect by both medical and social historians has contributed to the prevailing notion that the medicine brought by European colonial forces saved the lives of millions of people in the colonies.<sup>3</sup> Instead, medicine and medical services were introduced to the colonies for the self-interested concerns of the colonizers themselves, and were “constrained ideologically, financially and politically from broader and more effective involvement in the health of the population”.<sup>4</sup> An integrated study of the history of disease and health in colonial Sri Lanka must examine the implications of economic policies for the health of the indigenous people. Therefore, the purpose of this paper is two-fold: first, I will examine how British colonial labour policy in Sri Lanka resulted in an epidemic of hookworm disease on the plantations and in neighbouring villages. It is argued that the *laissez-faire* policy of the colonial government enabled the planters to ignore basic requirements such as the water supply and latrines for the workers in favour of their own economic goals. Second, I will discuss the involvement of Rockefeller

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<sup>1</sup> Lennox A. Mills, *Ceylon under British rule 1795–1932*, London, Frank Cass, 1964; G. C. Mendis, *Ceylon under the British*, Colombo, Apothecaries, 1952; S. Arasaratnam, *Ceylon*, New Jersey, Prentice Hall, 1964; S. U. Kodikara, *Indo-Ceylon relations since independence*, Colombo, Apothecaries, 1965; K. M. de Silva, *A history of Sri Lanka*, London, C. Hurst, 1981. Although these are some of the major historical studies on the impact of Western colonial rule in Sri Lanka, they make no reference to the health implications of colonial policies.

<sup>2</sup> C. G. Urugoda, *A history of medicine in Ceylon*, Colombo, Middleway, 1987. This is the only comprehensive historical survey of disease and medicine in Sri Lanka. However, the author's failure to address the fundamental social and economic policies of the colonial rule that had a far-reaching impact on the health of the people on the island severely undermines the potential contribution of this volume.

<sup>3</sup> K. David Patterson, *Health in colonial Ghana: disease, medicine, and socio-economic change, 1900–1955*, Waltham, Mass., Crossroads Press, 1981; Meredith Turshen, *The political ecology of disease in Tanzania*, New Jersey, Rutgers University Press, 1984, pp. 133–53.

<sup>4</sup> David Arnold, 'Medical priorities and practice in nineteenth-century British India', *S. Asia Res.*, 1985, **5**: 167–83.

“philanthropic” medicine in Sri Lanka, which came to assist the British planters but which also served the long-term economic and political interests of American industrial capitalism. The Rockefeller philanthropists failed to eradicate hookworm disease on the plantations because the planters, not perceiving the relation between their own profits and the health of the colonial labour force, did not fully co-operate with the programme.

## I

The British conquered the Kandyan Kingdom of Sri Lanka in 1815, burning numerous villages and desolating large tracts of land.<sup>5</sup> Dr Henry Marshall, a senior medical officer of the 89th Regiment that led the war against the Kandyan Kingdom, wrote that after such devastation amongst the Kandyans it would be “impossible to establish a cordial or social union with them”.<sup>6</sup> The bitterness of the war remained in the minds of the Kandyan Sinhalese for a long period. When the British established plantation industries in central Sri Lanka during the mid-nineteenth century, the Kandyans were unwilling to work on the estates. The planters had no choice but to recruit labour from neighbouring India for the year-round work on the plantations. From the early nineteenth century, Indian workers had been employed in coffee, sugar, rubber and tea plantations in more than a dozen British colonies. It was their labour, along with British capital, which built the overseas wealth of Britain.<sup>7</sup>

From the very beginning, the government of Sri Lanka maintained a very clear and firm policy towards the recruitment of Indian labour. It was argued that Sri Lanka was close enough to India for the planters themselves to make the appropriate arrangements to recruit workers as their economic interests dictated. This *laissez-faire* policy differed markedly from that of other British colonies. According to the labour law in India, labourers could be recruited only for Mauritius, British Guiana, Jamaica, and Trinidad, where the abolition of slavery had caused serious labour shortages. The Colonial Office in London and the colonial governments in those countries felt obliged to find replacements for the slave labour force.<sup>8</sup> The availability of cheap manpower in India provided the solution for the colonial governments, which realized the importance of a free flow of labour for their economies and became actively engaged in recruiting Indian workers for their plantations. However, as the situation was different in Sri Lanka, the government never felt such an obligation to its planters and therefore adopted a strong policy of non-intervention. The inconsistency of the labour policy shows that neither the Colonial Office nor the government of Sri Lanka acted with honesty in their handling of the recruitment of Indian labour for the plantations of Sri Lanka.<sup>9</sup>

The workers were recruited in India by the estates’ agents, or “Kanganies”, who acted as leaders of each group of up to one hundred workers. Kanganies took the workers to Sri

<sup>5</sup> Henry Marshall, *Ceylon: a general description of the island and its inhabitants; with an historical sketch of the conquest of the colony by the English*, London, William H. Allen, 1846, p. 131.

<sup>6</sup> *Ibid.*, p. 226.

<sup>7</sup> Hugh Tinker, *A new system of slavery: the export of Indian labour overseas, 1830–1920*, London, Oxford University Press, 1974, p. xiii; Kodikara, *op. cit.*, note 1 above, pp. 6–7.

<sup>8</sup> S. V. Balasingham, *The administration of Sir Henry Ward, governor of Ceylon 1855–1860*, Dehiwala, Tisara Publishers, 1968, pp. 49–50.

<sup>9</sup> K. M. de Silva, *Social policy and missionary organizations in Ceylon 1840–1855*, London, published for the Royal Commonwealth Society by Longmans, 1965, p. 239.

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Lanka, and supervised their work on the plantations. In addition to their salaries as supervisors, the Kanganies received two cents per day from the wage of each labourer under their supervision.<sup>10</sup> A Kangany generally supervised up to one hundred labourers and he himself would work as a labourer if the number of workers was small. Often acting as a mediator between the management and the workers, he was “the medium of all advances made to labourers, and he was often the sole debtor to the estate”.<sup>11</sup> Further, Kanganies received a bonus when their workers turned up, and therefore they made every effort to bring as many workers as possible to the plantations. This direct control by the Kanganies and the plantation management led to widespread exploitation and abuse of the workers.

The periods of high immigration coincided with the expansion of the plantation industries: coffee in the years between 1841 and 1880, tea from 1890 to 1910, and rubber in the first two decades of the twentieth century. By the turn of the century (at the height of the plantation economy), about 100,000 workers plus their families arrived annually in Sri Lanka.<sup>12</sup> According to the 1911 census, there were about 500,000 immigrant workers scattered over 1,900 estates in the central, southern and western provinces of the island.<sup>13</sup> The apparent discrepancy between the census and the annual rate of arrival is accounted for by the high death toll and by the fact that a large number of incapacitated workers returned each year.<sup>14</sup>

Workers came by boat to the northwest coast of Sri Lanka; from there they walked for about two weeks to the plantations in the central province. The long march along undeveloped interior jungle roads was extremely hazardous and they faced the threat of malaria. Many workers succumbed to disease, starvation, and exhaustion on their way to the plantations. Those who did arrive were unfit to begin work for several days. Without warm clothes and protection from the cool and damp climate of the hillside plantations, the workers became even more vulnerable to diseases: “Few gangs of coolies arrived on the estates without some deaths occurring on the road, but more took place after arrival on the estates, being worn with the journey and changes of climate”.<sup>15</sup> The plantation organizations in Sri Lanka, such as the Ceylon Agricultural Society, repeatedly requested direct government involvement in the recruitment and the welfare of the plantation labourers. It asked the government to establish, as a minimum, basic welfare facilities for the workers during their long journey from India. The Society maintained that the construction of resthouses and

<sup>10</sup> Jane Philips, ‘The hookworm campaign in Ceylon’, in Harvard M. Teaf and Peter G. Franck (eds), *Hands across frontiers: case studies in technical cooperation*, Leiden, A. W. Sijthoff’s, 1955, p. 274.

<sup>11</sup> De Silva, *op. cit.*, note 9 above, p. 240.

<sup>12</sup> Rockefeller Archive (hereafter RA), *Summary of notes on the visit to Ceylon*, 1914, pp. 1–3, RG. 5, Se. 2, Box 47.

<sup>13</sup> RA, *Considerations of importance in connection with the control of hookworm disease in Ceylon*, 1914, p. 4, RG. 5, Se. 2, Box 47. It should be noted that the sources are not clear regarding the number of women and children who accompanied the labourers. Reports generally state “labourers plus their families”.

<sup>14</sup> K. M. de Silva, a historian, provides compelling evidence for the extremely high death toll among the Indian immigrant workers during the early phase of the plantation industries in Sri Lanka. For example, in the years from 1841 to 1848, about 70,000 (10,000 per year) or 25 per cent of the immigrant workers died of various causes. These figures were published in the *Colombo Observer*, a leading newspaper of the day. It argued that the death toll in Sri Lanka was much higher than that in Mauritius, where labourers received relatively better treatment. According to de Silva, the government did not challenge these estimated figures, thereby providing strong corroboration of their accuracy. De Silva, *op. cit.*, note 9 above, p. 299.

<sup>15</sup> P. D. Millie, *Thirty years ago, or reminiscences of the early days of coffee planting in Ceylon*, Colombo, A. M. and J. Ferguson, 1878 (no page numbers in this book).

hospitals for the workers along the interior road to the plantations would ease their difficult journey. To finance such services it suggested that the government spend a proportion of the money made from land sales on the welfare of the workers.<sup>16</sup>

A large majority of these Indian labourers came from the lowest social strata of the Hindu caste hierarchy. According to this system, people of the lower castes were expected to undertake the most menial or despised occupations in Indian society. Because of their low status at home, many of these people became willing recruits, going to the other British colonies only to pursue equally menial occupations. They did not achieve anything by migrating, but simply exchanged “one situation of casual, intermittent, poorly paid labour for a similar situation in the new country”.<sup>17</sup> For almost a century, British colonial administrators were confronted with evidence that the planting interests exploited Indian labourers in ways which could not be tolerated by a “decent, humane society”.<sup>18</sup> Yet the administrators continued to defend the indentured labour system, claiming that these wrongs were mere abuses and irregularities which were “amenable to reform”. One of the most common official justifications for the working and living conditions of Indian labourers in various colonies was that their situation was not any better in India. Improvements, it was argued, could be worked out through negotiations with the planters. Because of such prevalent attitudes in the rank and file of the colonial administration there was no public outcry or abolitionist campaigns in Britain against indentured labour. The irony was that British officials actively campaigned against the exploitative customs of the Hindu caste system in India, but they turned a blind eye when it came to the deliberate exploitation by British plantation companies of Indian labourers elsewhere. Indentured labour was finally stopped in the early twentieth century only because of the opposition of Indians themselves to the practice.<sup>19</sup>

The planters were required to provide accommodation and hospital care for the workers. The workers lived in barrack-like “lines” which consisted of a double row of rooms back to back. Each family was given two small rooms; in one they slept, and in the other they cooked on the floor. As many as twelve people lived in a room of 8 by 10 feet. The small verandas of the lines were used to keep goats, cattle, chickens or any other livestock that each family owned. There were no windows in the rooms and the verandas were boarded up to keep out the drenching monsoon rains, a practice which also kept out much needed light. The most unhealthy aspect of these living conditions was that the lines were not provided with latrines; the planters maintained that the workers would not use them even if they were built.<sup>20</sup> As a result, the entire vicinity surrounding the lines became the repository of night-soil and other household refuse. Hence, the sanitary conditions on the estates were deplorable.<sup>21</sup>

As for the economic argument, the workers were paid on the basis of work “units” similar to that of piecework in factories. If the workers were in good physical condition they could

<sup>16</sup> Ceylon Agricultural Society, *Proceedings*, first report, Colombo, 1842, pp. 30–1.

<sup>17</sup> Tinker, *op. cit.*, note 7 above, p. xiii.

<sup>18</sup> *Ibid.*, pp. xiv–xv.

<sup>19</sup> P. C. Emmer, ‘The meek Hindu: the recruitment of Indian indentured labourers for service overseas, 1870–1916’, in P. C. Emmer (ed.), *Colonialism and migration: indentured labour before and after slavery*, Dordrecht, Martinus Nijhoff, 1986, pp. 187–207.

<sup>20</sup> RA, *Relief and control of hookworm disease in Ceylon*, 1918, pp. 6–7, RG. 5, Se. 2, Box 47.

<sup>21</sup> RA, *op. cit.*, note 12 above, pp. 1–4.

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complete more units of work a day, and be paid accordingly. Conversely, of course, workers in poor health earned less.<sup>22</sup> As a result of this arrangement, the entire family often worked under all climatic conditions in order to complete the assigned work units. Children started working in the fields as early as six years of age.<sup>23</sup> On the other hand, because of the ready supply of labour by the Kanganies, the planters perceived no direct economic benefit from maintaining even the most basic sanitary requirements on the plantations let alone from improving those conditions. Incapacitated workers could simply be replaced.

## II

In the extremely unhealthy sanitary conditions on the plantations, the workers and their families encountered a wide range of parasitic and infectious diseases. The annual reports of the Principal Civil Medical Officer (hereafter PCMO) on the health and sanitary conditions of the island provide the rate of infections, hospitalization, and death among various groups of the population. Hookworm disease was first reported in the annual report of the PCMO of Sri Lanka in 1888, when 31 cases were diagnosed.<sup>24</sup> They were all immigrant labourers from the plantation districts. As the number of reported cases of hookworm infection rapidly increased among plantation workers, health officials became convinced that the disease had been brought by labourers from India. Consequently, for the first time, the 1891 returns of the Registrar General of Ceylon reported that “the disease had been introduced to the island by the Indian cooly”.<sup>25</sup> Following that year, almost every annual report of the PCMO, the Registrar General of Ceylon, the Inspector General of Hospitals, and various other organizations, emphasized the high rate of hookworm infection among immigrant workers. They warned the authorities in Sri Lanka that the disease was rapidly spreading into neighbouring villages due to the poor sanitary conditions on the plantations. Although at this time only a few cases of hookworm-related deaths were reported in the north, north-central and eastern provinces, where there were no plantations, generally the whole island was affected by the disease.<sup>26</sup> Speaking to the Indian Medical Congress in 1894, Dr Thornhill, the Senior Medical Officer of the province of Uva, argued that “Whether the disease existed among the Sinhalese in the past time or not, I can only say that it is now widespread amongst them in the Uva and other provinces of Ceylon, apparently mostly in the provinces where immigrants from India are employed”.<sup>27</sup> In 1897, the Registrar General of Ceylon reported that out of 262 deaths registered from hookworm disease, over 80 per cent were immigrant workers. The report stated that the disease must be more prevalent than had been noticed by the health authorities: “There is reason to believe that mortality from anchylostomiasis [hookworm disease] is much understated owing to the difficulty of diagnosing the disease, and that to this disease is really due a large number of deaths now

<sup>22</sup> RA, *op. cit.*, note 13 above, p. 6.

<sup>23</sup> RA, *op. cit.*, note 20 above, pp. 4–6.

<sup>24</sup> RA, *Anchylostomiasis—Ceylon, administration reports, Principal Civil Medical Officer and Inspector General of Hospitals*, 1888 (abstracted), RG. 5, Se. 2, Box 47.

<sup>25</sup> RA, *Administration reports, vital statistics: report of the Registrar General of Ceylon*, 1891 (abstracted), RG. 5, Se. 2, Box 47.

<sup>26</sup> RA, *Administration reports, vital statistics: report of the Registrar General of Ceylon*, 1897 (abstracted), RG. 5, Se. 2, Box 47.

<sup>27</sup> H. Thornhill, ‘Anchylostoma duodenale’, *Transactions of the first Indian Medical Congress held at St. Xavier’s College, Calcutta, 24th to 29th December, 1894*, Calcutta, 1895, pp. 62–8.

returned as due to diarrhoea, dysentery, anaemia, dropsy, debility, and fever. The disease has been introduced into Ceylon by the Indian Cooly.” Further, it stated that “it is a more insidious and dangerous enemy than cholera and requires to be met by systematic measures of prevention”.<sup>28</sup>

Health authorities continued to point to immigrant workers as being the carriers of the disease. Sir Allan Perry, the PCMO, reported again in 1899 that:

This disease, like many others in the island, is brought over from India by the Malabar coolies . . . Unfortunately the disease is not confined to the hosts who bring the parasites, but it is spread broadcast from the habits of the cooly, who pollutes the soil with his excreta and thus affects the water supply of others. The disease, in consequence, is said to be on the increase.<sup>29</sup>

In its annual report on Sri Lanka, the *Mining Journal, Railway and Commercial Gazette* in 1904 warned the authorities that unless proper measures were introduced the disease would soon reach a catastrophic level with a large number of immigrants arriving on the island every year. It stated that hookworm disease was “constantly introduced from India by Malabar coolies . . . The disease is on the increase. There were 1,775 admissions in all hospitals, with 272 deaths. The largest number was treated in the General Hospital, Colombo, viz. 756 admissions with 38 deaths. A large number of cases occurs in the planting districts”.<sup>30</sup> By 1909, the gravity of the situation was such that over 90 per cent of the plantation workers had been infected and the death toll was rising.

Hookworms are tiny parasites about one-half of an inch in length. Although parasitic in the bowel, the worms enter the human body through the pores of the skin when they come in contact with soil polluted by human excreta. The victims of hookworm infection suffer from undernutrition, anaemia and lassitude. Drained of blood, hookworm sufferers are too weak to resist new infections, which usually cause their death.<sup>31</sup> By the turn of the century, hookworm infection was a common health problem in many of the British colonies.<sup>32</sup> Being concerned with the ill health and the high death toll of the colonial labour force, the British Medical Association set up a committee, that included Sir Patrick Manson and J. S. Haldane, to study the hookworm problem in the colonies. The committee recommended to the Secretary of State for the Colonies, the Earl of Crewe, certain preventive measures against the hookworm disease.<sup>33</sup> Following their recommendations, on 4 February 1909, Crewe wrote to the Governor of Sri Lanka regarding the high death toll among immigrant workers. In this despatch, the Secretary of State repeatedly acknowledged the economic loss for the planters resulting from the ill health of the workers:

<sup>28</sup> RA, op. cit., note 26 above.

<sup>29</sup> RA, *Administration reports, Principal Civil Medical Officer and Inspector General of Hospitals*, 1899 (abstracted), RG. 5, Se. 2, Box 47.

<sup>30</sup> RA, ‘Anchylostomiasis in Ceylon’, *Mining Journal, Railway and Commercial Gazette*, September 10, 1904 (abstracted), RG. 5, Se. 2, Box 47.

<sup>31</sup> W. W. Cort, ‘Investigations on the control of hookworm disease’, *Am. J. Hyg.*, 1921, 1: 557–67.

<sup>32</sup> Victor Heiser, *An American doctor’s odyssey*, New York, W. W. Norton, 1936, p. 328.

<sup>33</sup> RA, *Ceylon—sanitary and health conditions—hookworm disease*, 1914, pp. 1–5, RG. 5, Se. 2, Box 47. Folder 289 contains the recommendations of the British Medical Association and despatch No. 53 of the Earl of Crewe to the Governor H. E. McCallum on 4 February 1909.

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Having considered the reports from the several Colonies, with the observations of the committee upon them, I recognize that the loss of labour caused by the prevalence of anchylostomiasis is very serious, and affects prejudicially not only the employers of labour, but the community at large. Not only is there serious loss of life, direct and indirect, but also through the invaliding of labourers, the charges for hospitals and pauper expenditure are largely increased. This loss is, in my opinion, largely avoidable. Experience has shown that certain simple, well-understood, and inexpensive measures can be adopted, which, if properly carried out, will reduce the evil effects of anchylostomiasis to a negligible quantity.<sup>34</sup>

Although Crewe's communiqué indicates concern about the problem, his reference to the planters' economic losses reflects an inadequate understanding of the labour recruitment practices that existed on the plantations. Moreover, his comments do not appear to have been sufficiently forceful to compel the colonial government—already committed to a non-intervention policy—to take any direct action. Not surprisingly, Crewe's communiqué did not produce any tangible improvements in the sanitary conditions on the plantations. The Governor, H. E. McCallum, appointed a committee consisting of several government officials and planters to recommend measures for the control of the disease, but took no concrete action. The committee suggested basically the same measures that had already been recommended by the PCMO, Sir Allan Perry, in 1903.<sup>35</sup>

The government's and the planter's ability to respond to medical crises, not to mention their priorities, is evident in the case of the fatal disease known as sprue. Sprue was characterized by chronic diarrhoea affecting Europeans, but not the natives.<sup>36</sup> The European planting community and the colonial administration were extremely concerned by the disease. They promptly responded with a joint effort to deal with the problem. The Planters' Association and the government together established a fund amounting to £1,000 (£750 from the government and £250 from the Planters' Association) to carry out research. Further indicating the level of official concern, Patrick Manson, a highly regarded authority on tropical disease, and his son-in-law Philip Manson-Bahr, were both brought to Sri Lanka at the Governor's request to undertake research on the disease between 1912 and 1914.<sup>37</sup>

The Planters' Association was a powerful political body which exercised a great deal of influence on the political affairs of the country. At the outset of the hookworm epidemic, the colonial government underestimated the political power of the Planters' Association and tried to interfere with their business. For example, when the PCMO distributed a pamphlet describing the hookworm infection on the plantations, the planters reacted angrily. They observed, pointedly, that the "government has done nothing for them as to hookworm disease for 20 years although fully conscious of the problem".<sup>38</sup> Since the government was unwilling to commit *itself* financially to affairs it had long maintained were the planters', it purposely avoided making recommendations that might involve capital spending and antagonize the planters further. Consequently, the recommendations

<sup>34</sup> *Ibid.*, p. 1.

<sup>35</sup> RA, *Anchylostomiasis—Ceylon, medical report on the health and sanitary condition of the island for the year ending Dec. 31, 1903, with the hospital returns for the same period* (abstracted), RG, 5. Se. 2, Box 47.

<sup>36</sup> P. H. Bahr, *A report on researches on sprue in Ceylon, 1912–1914*, Cambridge University Press, 1915, p. 19.

<sup>37</sup> *Ibid.*, p. 1–2.

<sup>38</sup> RA, *op. cit.*, note 13 above, pp. 5–6.

of the committee appointed by Governor McCallum tended to be superficial, considering the current understanding of the disease. It recommended that all workers arriving in Sri Lanka be treated with beta-naphthol until the rate of infection declined to a negligible level. With respect to the prevention of the disease, it recommended that every set of lines and its immediate surroundings be swept clean once a day and that any deposit of excreta be carefully removed and buried. In addition, at least 12 feet around the lines were to be cleared of all vegetation; and the verandas were not to be enclosed or occupied by livestock. It is critical to note however, that, given the importance of latrines in preventing the continuing spread of the disease, the committee issued no direct orders to construct them. The language used in the report reflects the relative weight given to each of the points it makes. In all, the report contained nine points, of which eight were explicit “recommendations” while the construction of latrines was only “urged”.<sup>39</sup>

For a variety of reasons, therefore, the effective control of hookworm disease on the plantations was prevented by the ideological, political and economic interests of the colonial government. The official viewpoint was that hookworm disease on the plantations was a problem for the planters to deal with in accordance with their own economic objectives. The planters, on the other hand, perceived no direct economic benefit from controlling and curing the disease; they tried to maximize their profit by ignoring even the most basic sanitary requirements of the workers.

For their part, the workers could ill afford to take time off for medical treatment which would result in loss of wages. After taking medication, they could not work for a day or two due to various effects of the treatment. According to Dr J. E. Snodgrass:

The most frequent complaint is of pains in the arms, legs, or other parts of the body—it is believed that the pains referred to are in large part due to the effect of the purgative in conjunction with the wet and fairly cold weather, and perhaps to the somewhat debilitated condition of many of the patients. An improper and probably insufficient food supply no doubt has a bearing on many of the phenomena.<sup>40</sup>

Because of these consequences, workers were reluctant to follow the treatment; this was interpreted by the planters as the result of ignorance and superstition.<sup>41</sup> Moreover, the poor sanitary condition of their living quarters was generally attributed to the cultural character of the people. It was argued that “the Oriental could not be sanitized; he always had lived in filth and squalor; to persuade him to live any other way was hopeless; he was happy in his present mode of existence and it would be a shame to disturb him”.<sup>42</sup> The poor socio-economic condition of these labourers in India was used by the planters as the standard for determining the services to be provided on the plantations in Sri Lanka. The assertion that these people would not use sanitary facilities even if they were provided was mainly prompted by the economic concerns of the planters. We may assume that, even

<sup>39</sup> RA, *Administration reports, 1910–1911, anchylostomiasis—Ceylon, Principal Civil Medical Officer and Inspector General of Hospitals* (abstracted), RG. 5, Se. 2, Box 47. Folder 289 contains the committee’s recommendations.

<sup>40</sup> RA, Letter from Dr J. E. Snodgrass to the International Health Board, No. 443/17, Aug. 19th, 1917, RG. 5, Se. 1.2.

<sup>41</sup> RA, *op. cit.*, note 20 above, pp. 4–7.

<sup>42</sup> Heiser, *op. cit.*, note 32 above, p. 35.



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lacking a detailed knowledge of the hookworm's life-cycle, or "germ theory", little encouragement would be required for a labourer to discern the value of a clean and functional latrine. In general, neither the government nor the planters acted upon the hookworm problem adequately, due to their own self-interested concerns. As a result, the disease became an epidemic in many parts of the island. By 1916, as is shown in Table 1, over 90 per cent of the labour force on the plantations was infected with it.<sup>43</sup> It was under these circumstances that the International Health Board (hereafter IHB) of the Rockefeller Foundation became interested in setting up a hookworm control programme in Sri Lanka.

*Table 1*  
Hookworm infection by age in major plantation areas, 1916–1917

Age groups		Total		Dickoya		Bogawantalawa		Norwood		Matale*	
		No.	%	No.	%	No.	%	No.	%	No.	%
All ages	examined	46,705	—	14,302	—	10,271	—	5,662	—	16,470	—
	infected	45,416	97.2	13,667	95.6	10,114	98.5	5,497	97.1	16,138	98.0
Under 6 years	examined	4,821	—	2,331	—	347	—	972	—	1,171	—
	infected	4,242	88.0	1,970	84.5	289	83.3	881	90.6	1,102	94.1
6 to 18 years	examined	13,108	—	3,737	—	2,746	—	1,320	—	5,305	—
	infected	12,778	97.5	3,660	97.9	2,696	98.2	1,309	99.2	5,113	96.4
19 to 40 years	examined	21,711	—	6,803	—	5,903	—	2,741	—	6,264	—
	infected	21,424	98.7	6,660	97.9	5,861	99.3	2,694	98.3	6,209	99.1
41 to 60 years	examined	6,373	—	1,295	—	1,197	—	580	—	3,301	—
	infected	6,290	98.7	1,246	96.2	1,190	99.4	567	97.8	3,287	99.6
Over 60 years	examined	692	—	136	—	78	—	49	—	429	—
	infected	682	98.6	131	96.3	78	100.0	46	93.9	427	99.5

\* Includes villages and estates' schools

Source: RA, No. 7388, *Report on work for the relief and control of hookworm disease in Ceylon*, 7 September, 1918. Record Group 5, Series 2, Box 47, Folder 292.

### III

The Rockefeller Foundation's involvement in the hookworm control campaign began in the early 1900s, when the disease was widely prevalent in the southern United States.<sup>44</sup> The Rockefeller capitalists of the North became interested in controlling hookworm disease and increasing the productivity of the people of the backward South for the purpose of expanding the industrial economic basis. Having successfully eradicated hookworm disease in the South, John D. Rockefeller Sr and his ideological mentors such as Frederick Gates, Simon Flexner, Wickliffe Rose, and Theobald Smith turned their attention to other nations, in particular the British colonies. According to Richard Brown,<sup>45</sup> Rockefeller philanthropists became interested in undertaking public health programmes in these colonies for specific economic and political reasons: 1) control of the

<sup>43</sup> RA, op. cit., note 33 above, pp. 4–6.

<sup>44</sup> R. B. Fosdick, *The story of the Rockefeller Foundation*, New York, Harper and Bros., 1952, p. 10.

<sup>45</sup> E. R. Brown, 'Public health in imperialism: early Rockefeller programmes at home and abroad', *Am. J. Publ. Health*, 1976, **66**: 897–903, p. 897; also E. R. Brown, *Rockefeller medicine men*, Berkeley, University of California Press, 1979, pp. 13–59.

economic resources and markets of those non-industrialized countries was necessary for sustained economic growth in the United States; 2) economic and political relations with the people of the colonies would facilitate future investments of surplus capital in those countries by industrial capitalists; 3) poor health and disease were believed to be an obstacle to those agrarian people receiving the benefit of civilization. If Western medicine could eliminate these diseases, the people of the colonies would be more receptive to Western social and cultural values, making increased American economic and political influence possible in those societies. Frederick Gates, a founding member of the IHB, wrote to Rockefeller Sr: "all the nations and all the islands of the sea are actually opened and offer a free field for the light and philanthropy of the English speaking people". He went on to observe that, "Missionary enterprise, viewed solely from a commercial standpoint, is immensely profitable . . . Imports from heathen lands furnish us cheaply with many of the luxuries of life . . .".<sup>46</sup> The IHB had its own reasons for selecting Sri Lanka for a hookworm control programme: "Ceylon was regarded as the key to the situation in the East, particularly for work in British colonies".<sup>47</sup> Among the specific reasons for selecting Sri Lanka, Wickliffe Rose, the Director of the IHB, recognized the importance of agriculture as a viable economic medium and the country's location at a cultural crossroads in the East which would be ideal for spreading the new knowledge.<sup>48</sup>

When the IHB first approached them, the colonial government and the planters strongly objected to the proposed plan to start a hookworm control campaign on the plantations. The Governor at the time, Sir Thomas Chalmers, stated that he did not want "any Yankee men or Yankee methods introduced; Ceylon was capable of running its own affairs and paying for its own health work".<sup>49</sup> However, the government and the planters were eventually convinced by Rockefeller representatives that improved health would also mean increased productivity and reduced absenteeism. They argued that "a healthy labourer is an asset to an estate while an unhealthy labourer is a partial liability. It appears economical therefore to keep labourers healthy".<sup>50</sup> The representative of the IHB in the East, Dr Victor Heiser, strengthened the argument by noting that "disease never stays at home in its natural breeding place of filth, but is ever and again breaking into the precincts of its more cleanly neighbours".<sup>51</sup> As a further incentive, the IHB was prepared to bear more than half the cost of the project, which neither the government nor the planters could refuse. Also, by that time the relationship between the planters and the government had reached its lowest point over the issue of sanitation on the plantations. Therefore, both sides were ready to use the opportunity in order to break the deadlock. Although the easy supply of workers continued unabated, it can be suggested that the planters had their own reasons for wishing to improve their relations with the government.

With the approval of the colonial government and the Planters' Association, the hookworm control programme was initiated in 1916 in a group of selected estates. The

<sup>46</sup> RA, Letterbook No. 350, 1905, RG. 1.

<sup>47</sup> RA, *Ceylon*, 1915, p. 13, RG. 1.1, Se. 600, Box 2.

<sup>48</sup> Philips, op. cit., note 10 above, p. 271.

<sup>49</sup> Heiser, op. cit., note 32 above, p. 332.

<sup>50</sup> RA, *Suggested memorandum of procedure to control anchylostomiasis in Ceylon after the International Health Board's officers are withdrawn*, 1922, p. 4, RG. 5, Se. 2, Box 48.

<sup>51</sup> Heiser, op. cit., note 32 above, p. 37.

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representatives of the IHB, Doctors J. E. Snodgrass, W. C. Sweet, and W. P. Jacocks, developed a working plan for Sri Lanka, which would be supervised by American medical personnel appointed by the IHB. The equipment and salaries of the American personnel were provided by the Health Board, while the cost of local subordinate staff was provided by the government and the plantation owners.<sup>52</sup> Although we will later see that little came of it, at this point the planters finally agreed to take the crucial step of building latrines on the plantations. The government also promised to provide every legitimate assistance to the planters to improve sanitary services. This was an important change in government policy toward the plantation industry.<sup>53</sup> An area of about 7 by 10 miles in the Matale district, comprising 24 estates with a population of approximately 10,000, was selected for the initial stages of the campaign. The programme was gradually extended to other estates in the plantation districts. Besides the treatment of those infected, the campaign consisted of a study of suitable types of latrines for the estates and an information campaign on the cause and prevention of hookworm disease. This was done through lectures, distribution of pamphlets and demonstrations. In addition, the estate dispensers were trained to diagnose the infection using microscopical and clinical techniques, and to administer proper doses of chenopodium oil as treatment.

By the end of 1917, the hookworm control campaign had treated about 40,000 people. Of these, 77.9 per cent were pronounced cured upon microscopic re-examination. In the course of examination of specimens for hookworm ova, microscopists found the eggs of other intestinal parasites such as ascaris, trichocephalus, strongyloides, oxyuris and taenia. A mixture of chenopodium oil and sugar syrup was given as treatment. Morbidity statistics were gathered from several estates which showed the improvement in general health following the treatment for hookworm disease. The death rate declined to 7.5 per 1,000 people on the estates compared to 13.8 per 1,000 prior to the hookworm control campaign. The District Medical Officer of Matale reported that only 2,604 patients were admitted to hospitals in 1918, compared with 3,694 hospital admissions in 1916 before the hookworm control programme was begun, a reduction of 27 per cent.<sup>54</sup>

In spite of these improvements in the health of workers, they were not sufficient to convince the planters to undertake the major sanitary reforms suggested by the IHB. As has been noted, the crucial requirement for the control of hookworm disease was the construction of latrines. Although the planters had agreed to construct latrines at the beginning of the campaign, they did not honour their commitment. Because of the pressure of the IHB, the government introduced legislation making it compulsory for all the estates to provide sufficient latrines for the workers' lines.<sup>55</sup> In order to comply with the law, many estates constructed latrines using temporary materials such as cadjan and jute bagging which did not last more than a few weeks. Therefore the persistent soil pollution on the plantations combined with the arrival of infected new workers from India contributed to a high rate of re-infection. Faced with this situation the government took no significant action. Although voicing agreement for the plan initially, the lack of real

<sup>52</sup> RA, *Working plan for the relief and control of anchylostomiasis in Ceylon*, 1916, pp. 1–3, RG. 5, Se. 2, Box 48.

<sup>53</sup> RA, *op. cit.*, note 50 above, p. 4.

<sup>54</sup> RA, *op. cit.*, note 20 above, pp. 27–37.

<sup>55</sup> *Ibid.*, p. 8.

commitment on the part of the planters was demonstrated by the shoddy construction of those latrines which were built. As the Rockefeller observers reported:

In no case were the latrines in the right position. They were too far away, and not handy enough to the lines they were intended to serve. . . . The latrines were also ill-constructed, roofs too low, no drains, platforms laid on ground level instead of on a raised stone work, and many of them rotten and unsafe.<sup>56</sup>

In 1919, three years after the completion of treatment in Matale district, a sample of about 3,000 workers were given post-campaign treatment. Examination of the excreta of these workers showed that there was a high rate of re-infection among those who had been cured in 1917. As shown in Figure 1, on 33 estates of the district, the average rate of re-infection was 88 per cent, while the level of re-infection ranged from as low as 45 per cent to as high as 100 per cent. In all the other plantation districts the post-campaign examinations showed high rates of re-infection.<sup>57</sup>

#### IV

The hookworm control campaign on the plantations failed to achieve its goal because the sanitary conditions were not improved while the treatments were being carried out. The continued soil pollution on the estates and in the neighbouring villages created a cycle of re-infection which prevented total eradication of the disease. It became clear to the IHB that neither the government nor the Planters' Association was seriously concerned about the hookworm problem. Although sharing the cost of the programme, the government was not fully committed to the objective of improving sanitary conditions on the estates. It did not want to antagonize the Planters' Association by forcing them to construct latrines, nor did it want to construct latrines on the estates as this might appear to be a change of government policy toward the plantations. For their part, the planters believed that they could overcome the persistent complaints against them by letting the IHB medical personnel treat their labourers. Anything beyond that which required capital spending was not something that they were prepared to undertake. The planters insisted that they could not make a substantial capital outlay to improve sanitary conditions in the context of the depressed financial situation in the tea and rubber markets following World War I. At this juncture, the hookworm control campaign on the plantations came to an abrupt end; the IHB felt that there was no point in carrying out treatment on the estates unless the sanitary conditions were improved to prevent soil pollution. The complete eradication of the hookworm disease on the plantations, according to the IHB, required the following measures: 1) the estates were to comply with basic sanitary requirements such as the construction of appropriate latrines in the workers' lines; 2) all new workers were to be treated upon their arrival at the estates; 3) until sanitation was well enough established to prevent re-infection, one round of treatment was to be repeated each year; 4) arrangements were to be made to treat workers while they were in quarantine camps in southern India.<sup>58</sup>

On 18 January 1921, the Hookworm Control Committee met at the office of the Colonial Secretary to discuss the future of the campaign. The chairman of the committee, the

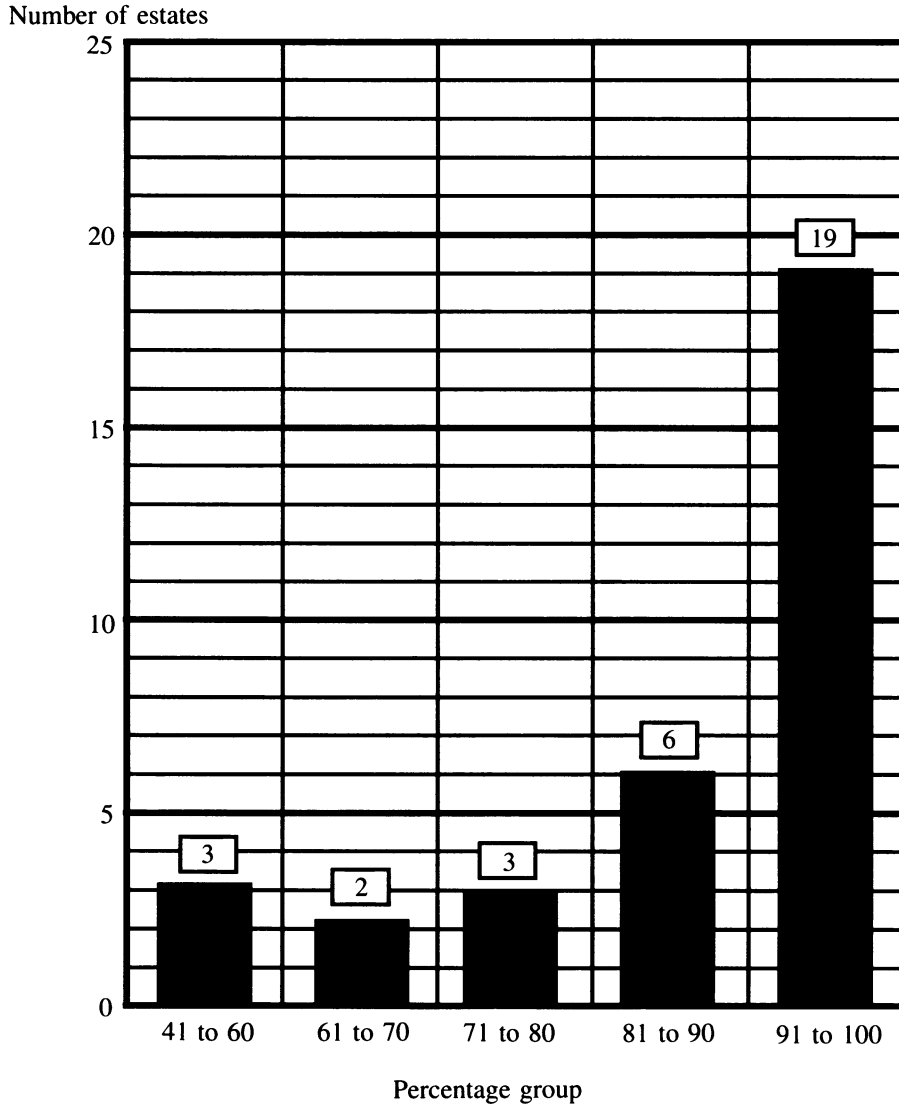
<sup>56</sup> RA, *Sanitary survey, Mahateme estate, Kandy district*, 1919, p. 1, RG. 5, Se. 2, Box 48.

<sup>57</sup> RA, *Relief and control of hookworm disease in Ceylon*, 1920, pp. 18–20, RG. 5, Se. 2, Box 47.

<sup>58</sup> RA, *op. cit.*, note 50 above, pp. 3–5.

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Figure 1: Hookworm re-infection rates in 33 estates of Matale District, Sri Lanka, 1919.



Source: RA, No. 7542, *Report on work for the relief and control of hookworm disease in Ceylon*, December, 1920. Record Group 5, Series 2, Box 47, Folder 294.

Colonial Secretary, informed the meeting that Dr Heiser of the IHB would be visiting Sri Lanka in the near future to assess the progress of the campaign on the plantations. In the meantime, he pointed out that the IHB had decided to stop all its treatment activities on the estates and to resume work in the villages: “It was decided, for the present at any rate, the campaign should be undertaken in village areas . . . , but at the same time it was realized

that there was little or no prospect of transferring such activities to upcountry estate areas even after the arrival of Dr. Heiser".<sup>59</sup> In April 1921, as anticipated by the government, Dr Heiser visited Sri Lanka and confirmed the IHB's decision to stop its work on the plantations after 1922. He met government officials, the Planters' Association and the medical personnel of the project to discuss the future of the campaign. The project director, Dr W. P. Jacocks, pointed out that in the context of the given state of sanitation it would be futile to continue treatment activities on the plantations:

In regard to sanitation on estates the requirements of government are comprehensive but are not enforced to any extent. As a matter of fact legal steps are scarcely ever taken against even the worst offenders with the result that sanitary conditions are as bad as ever on most estates. . . . There was considerable opposition, of a passive nature, against the innovation and on the majority of estates only the bare letter of law has been complied with.<sup>60</sup>

Under these circumstances, Dr Jacocks advised that the emphasis should be shifted from hookworm control on the estates to a comprehensive health programme, which would include hookworm control, sanitation and other related problems, directed towards some selected native communities on the island.

Following these consultations, Dr Heiser made several recommendations to the government and the planters with regard to the permanent control of hookworm infection on the estates. He made it clear that until such recommendations were satisfactorily met, "No further regular campaigns are needed to be done on estates. Demonstrations have already been given on approximately 1,700 estates and more than 300,000 labourers have been treated".<sup>61</sup> He suggested that the plantations should carry on with their own treatments through their dispensers, as it would be more affordable to the planters and would interfere less with their economic activities. For the first time, Dr Heiser raised the issue that the planters should consider making an arrangement with the South Indian government to provide treatment for the labourers before they left the quarantine camps at Mandapam and Tatta Parri in India. His report concluded expressing disappointment with the level of co-operation of the government and the planters: "This whole program is based on the understanding that estates are putting forth every effort to improve sanitation by building latrines and by getting them used. This is the most important feature of the work. Every legitimate encouragement should be given by the government to enable estates to conduct their own campaigns and to improve their sanitation".<sup>62</sup>

By the end of 1922, according to the annual reports of the project directors, the IHB had spent \$195,048 on the hookworm control campaign in Sri Lanka. The campaign had treated a total of 413,175 individuals on the estates and neighbouring villages.<sup>63</sup> This included people who received one to four treatments. Costs in terms of patients

<sup>59</sup> RA, *Minutes of a meeting of the anchylostomiasis control committee held in the office of the Colonial Secretary*, January 18th, 1921, RG. 5, Se. 2, Box 48.

<sup>60</sup> RA, *European planting community in regard to medical aid and sanitation*, 1921, p. 1, RG. 5, Se. 2, Box 47.

<sup>61</sup> RA, *op. cit.*, note 50 above, p. 3.

<sup>62</sup> *Ibid.*, p. 4.

<sup>63</sup> RA, *Ceylon anchylostomiasis campaigns*, 1916–26, pp. 1–2, 8–9, 18–19, RG. 5, Se. 3, Box 196; Philips, *op. cit.*, note 10 above, p. 296.

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amounted to less than 50 cents per person. If treatments were counted as units of service, the cost of each unit was less than 20 cents. Approximately two-thirds of the total cost of the campaign had been spent between 1916 and 1919: this amounted to \$122,538.<sup>64</sup> The high operational cost during this period was due to extensive preliminary examinations of patients during the early part of the campaign. After 1919 the programme was modified to reduce the cost of examination. Although the government shared the cost with the IHB, the annual reports of the campaign do not provide information on the government's share. Therefore, the above figures represent only a portion of the cost. The government provided for the salaries and expenses of local subordinate staff, drugs, equipment, offices and office supplies. The annual reports of the IHB describe the government's spending as "an approximately equal division of the expense of the work".<sup>65</sup> If that was the case, it can be suggested that from 1916 to 1922 the IHB and the government jointly spent approximately \$400,000 for the hookworm control programme on the plantations.

The deaths from hookworm disease did not decline during this period. For example, out of ten major plantation districts where an extensive treatment programme had been carried out, in only one (Matale) had the number of deaths been reduced (by 13 per cent) between 1916 and 1919. In all the others, hookworm-related deaths continued to increase during the campaign, with disproportionately high numbers from 1917 to 1918, which were the years of the influenza epidemic. When the campaign began in 1916, an average hookworm related death rate for these ten districts was 520, which rose to a peak of 619 in 1919. Several explanations have been given for this increase: 1) that doctors became aware of the disease and were making facile diagnoses, resulting in the attribution of more deaths to hookworm infection; 2) a rice shortage on the plantations during World War I changed the diet to rougher foods which aggravated the disease; 3) for the first time, an administrative mechanism was developed to obtain accurate registration of vital statistics in 1919.<sup>66</sup>

Despite these official interpretations of the increased deaths during the campaign, one cannot overlook the fact that the treatments could not prevent continued re-infection due to the poor sanitary conditions. Although the campaign reduced the number of worms each infected individual harboured, the rate of re-infection increased over time with the unabated soil pollution. This was the major factor that was never adequately tackled on the estates. Almost every annual report of the project directors and field doctors referred to the poor sanitary conditions, but the problem was always brushed off with temporary solutions by the planters and the government. Given the transparent importance of sanitation in controlling hookworm disease, it is hard to comprehend why the construction of latrines on the plantations was not given priority in the hookworm control campaign. It is in response to this question that the remainder of the paper is addressed.

## V

First the respective situation of, and the relationship between, the planters and the government will be briefly reiterated. Leaving aside lengthy commentary on the callous

<sup>64</sup> RA, *op. cit.*, note 57 above, pp. 23–4.

<sup>65</sup> *Ibid.*, p. 23.

<sup>66</sup> RA, *Number of deaths according to hospital reports in plantation districts where ancylostomiasis campaign was conducted, 1911–1920*, RG. 5, Se. 2, Box 48; also Philips, *op. cit.*, note 10 above, p. 297.

treatment of those in their employ, it should be clear that the planters' reluctance to construct latrines rested principally on the issue of profit. They knew that it would cost them a certain amount of money to build the necessary permanent latrines and they perceived no economic or legal impediments to disregard such needs. The sanitation problem caused no serious labour shortages, owing to the ready supply of workers from India. Further, the planters enjoyed relative immunity from prosecution for failure to comply with even those sanitary regulations already in place. For its part, having begun to experience a degree of cordiality with the planters by the time of the programme's implementation, the government seems to have been reluctant to press its legal hand over the matter of sanitation. The arrival of the Rockefeller "philanthropic" medicine provided the government with some means to move away from its mutually confrontational relations with the planters in a way which would not jeopardize its dubious *laissez-faire* policy. The government was decidedly unwilling to accept responsibility for sanitary services as it reasoned this might—in the perception of the planters—appear to be a retreat from its own (self-serving) policy of non-interference. Realizing that endorsement of the hookworm campaign was necessary, given the influence of the Planters' Association on the Colonial Office in London, the government of Sri Lanka eventually acquiesced, conceiving no harm in playing a supportive role in the campaign. But the government's stated goal of eradicating hookworm disease was not its primary objective. This led to the curious result that it spent what was for that time a considerable amount of money on a largely futile exercise.

Finally, what accounts for the Rockefeller doctors' own failure to pursue more vigorously the importance of sanitary reforms on the plantations? Owing to past experience, they were well-informed about the crucial relationship between latrines and the hookworm infection. This is often evident in their reports; for example, referring to the experience in Puerto Rico, a staff member of the IHB recalled:

Although Puerto Rico has a population of approximately one million and has already spent \$347,000 on hookworm, we found an infection rate over 90 per cent in 2000 examinations at various test points among the rural population. Fully 80 per cent of the houses have no latrines. The trouble is that all the money was spent on relief measures and very little effective sanitation was accomplished.<sup>67</sup>

Frequent reference is made by the project director and the field doctors to the necessity of latrines on the plantations in Sri Lanka. The temporary latrines which were constructed during the campaign lasted only a few weeks, after which the problem of sanitation again became the major concern. Reflecting a considerable level of frustration, one field doctor reported:

We are doing our best to prevent soil pollution on the various estates, . . . At the present time, the [latrine] structures are unserviceable and unsafe. They are not used except perhaps in one or two instances. It is very desirable that new structures of permanent materials be constructed as soon as convenient. It is considered important that as little wood, mud walls, or cadjan as possible be used. It is advisable that stone, bricks, or tiles be used.<sup>68</sup>

<sup>67</sup> RA, *Anchylostomiasis operations in Ceylon*, 1919, pp. 6–7, RG. 5, Se. 3, Box 193.

<sup>68</sup> RA, *Sanitary conditions on the estates*, 1919, p. 14, RG. 5, Se. 2, Box 47.



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From the beginning of its sojourn in Sri Lanka, senior representatives of the IHB employed formidable diplomatic tact in bringing together the two hostile parties—the government and the Planters' Association—in order to initiate the campaign on the plantations. To a certain extent it would seem that this rhetorical current of diplomacy became the predominant tenor of discourse, imbuing all subsequent relations. And since it was so important in initiating the campaign it was difficult to interrupt. As a result, the representatives of the IHB were required to play the role of mediator or broker between the government and planters, which compromised their ability to advocate sanitary reforms more forcefully in conjunction with treatments.<sup>69</sup> Moreover, despite the field doctors' continual reports of the sanitary problems on the plantations, there was no significant effort on the part of high-ranking officials to convert these concerns into tangible reforms.

However, there is another dimension to the failure of the hookworm campaign in Sri Lanka. It is that, being both trained and socialized by the theories and values of Western medicine, the medical personnel involved were products of, and enamoured with, the emerging biomedical model. The IHB did not pursue the question of latrines forcefully with either the government or the planters because its aim was to *cure* the disease. From the very beginning, the success of the campaign was measured in terms of cure, reduced absenteeism, increased productivity and increased fertility on the plantations. These were the specific results that Dr Heiser promised to the chairman of the Planters' Association when he first met him in 1915. When absenteeism was reduced immediately after the first year of the campaign, the enthusiasm was overwhelming—despite the early indications of re-infection. Again in 1919, the IHB did not insist upon sanitary reforms on the estates when the government refused to enforce the existing sanitary regulations. Instead, it went ahead with expanding the campaign to other plantation districts while fully aware of the problem of re-infection on estates where treatment had been completed. The IHB recognized the importance of latrines as an essential step toward the eradication of hookworm disease. Project directors and staff members of the IHB often talked about the *prevention* of the disease. However, because they were overwhelmed by the “power” of medicine they soon sidestepped the issue when the government and the Planters' Association insisted upon continuing treatment.

For the Rockefeller Foundation, eradication of hookworm disease meant not only the increased productivity of labour but also a wider acceptance of Western cultural values by the people of European colonies. This was considered to be crucial for the future of American economic and political interests in those countries. It is ironic that the money spent on treatment could easily have provided a sufficient number of latrines on the plantations.<sup>70</sup> In spite of the persistent suggestions by the field doctors regarding the

<sup>69</sup> The government often acknowledged that the unconditional commitment of the IHB to carry out treatment on the estates would help to “heal the break” between the government and the planters. It was widely believed by high-ranking government officials that any support the IHB provided to the planters would help to convince them that the government was behind such support because, as Dr Rutherford, PCMO, put it, “the aid could not have been granted without Government consent”. The eventual outcome, according to the PCMO, was a “more kindly reciprocal feeling between planters and Government”. RA, Letter, May 24, 1920, from Dr W. P. Jacocks to Dr Victor Heiser, No. 1132, RG. 5, Se. 2, Box 47.

<sup>70</sup> It is interesting to note how little it would cost to construct a regular outdoor pit latrine in Sri Lanka at that time. In 1930, requesting a grant of Rs. 5000 from the IHB, Dr R. Briercliffe, the director of Medical and Sanitary Services in Sri Lanka wrote: “Rupees 5000 would I think enable us to provide at least 5000 latrines. With 10

*Soma Hewa*

urgency of sanitation, the prevention of hookworm disease was never—not in an unequivocal manner, at least—considered an indispensable part of the agenda. This is because the main concern of the senior officials of the IHB was to “demonstrate” the curative power of Western medicine. In conclusion, it can be suggested that the control of hookworm disease through sanitary reforms was less alluring to the senior officials of the IHB and, consequently, was judged by them to be a less impressive display of Western culture in the ongoing publicity campaign.

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borers at work we could probably install 3000 latrines a year. It would be an excellent demonstration to Government of what can be done with a little money . . .”. (Incidentally, one U.S. dollar was equivalent to three rupees at that time.) RA, letter, October 6, 1930, from Dr R. Briercliffe to Dr W. P. Jacocks, No/Y/1667, RG. I.1, Se. 462, Box 1.