2

Constructing Colonial Railway Networks in Malaya

Contextual Grounding

The construction of transportation infrastructures in Malaya is a crucial part of the global story of industrial capitalism, which is intertwined with the unprecedented movement of labour in the nineteenth century. By 1932, an elaborate and interconnected railway network had materialized in Malaya, including on the island of Singapore. This chapter historicizes the railway networks that were constructed in Malaya using Indian, Chinese and Malay labour. Picking up on the discussion in the previous chapter, here I elaborate on the overwhelming historical demand for immigrant Indian labour globally and in Malaya. Even though it was challenging to secure labour, recruitment strategies that sought to ensure labour welfare – supported by legal laws and labour codes – brought large numbers of Indians to Malaya. Over time, these labour clusters assumed centre stage in maintaining the railway infrastructures that they had helped build. This chapter also depicts the socioeconomic profile of Indian labour – their class, caste and gender backgrounds, and the positions they occupied in the railway services. This labour constituency is contextualized within a broader discussion on the Malayan railway's workforce and the terms of employment of the clusters within.

At the close of the nineteenth century, colonial capitalism required a large pool of cheap labour to extract raw materials and produce commodities, spurring industrial growth in Britain. A staggering range of complex contracts, legislations and policies were conceived to control and consolidate labour flows and ownership, sale and utilization of lands – particularly by indigenous communities – and, indeed, the very building of colonial infrastructure itself. These commercial commitments engendered exceptional demand for labour, which was sought primarily from India and China, but also from Java. The strategy

Endnotes for this chapter begin on page 115.

adopted to ensure labour for working in tin mines, and rubber and coffee plantations, as well as on telecommunication and transportation infrastructures – laying telegraphic lines, building ports, harbours, prisons, hospitals, offices, residences, roads, bridges and railways – was importing cheap and plentiful workers from these territories.

The earlier disinterest in Malayan regions and the British policy of nonintervention (Dharmalingam 1996; Lo 1957; Looi 1995) therein was transformed dramatically at the turn of the nineteenth century, when these regions assumed strategic importance. Economic historians have highlighted that Malaya was rather peripheral to the bigger geopolitical and commercial concerns of the British Raj (Shennan 2001; Tarling 1969; Tregonning 1965). Britain was more concerned about trade with India and China during the eighteenth century and did not pay much attention to commercial opportunities in Malaya. When Malaya did make an appearance on the horizon of British interests at the end of the eighteenth century, it was to fortify the Empire and secure India–China trade, specifically the trade in tea (Tarling 1969: 1). Tregonning, an eminent historian of the Malay Peninsula, remarks that: 'For most of its history, the Malay Peninsula has been on the flank of greater empires, either in Southeast Asia itself (empires which have controlled it) or in India and China (empires which have influenced it). Denied the ample flat land a great civilization demands, the Malay Peninsula has been, almost invariably, a subsidiary of greater empires elsewhere in Asia' (1965: 5). Shennan agrees that: 'Malaya has never gripped the imagination of the British nation as vividly as the splendours of the Raj or the arcane riches of China' (2001: 14–15).

However, a key historical moment was the institution of the British residential system[1] in the west coast states in 1874, resulting in enhanced British control therein. Subsequently, the region experienced the clearing of large land areas for growing rubber and the escalation of mining activity, accompanied by large-scale immigration from India and China. Initially, this growing agricultural activity in Malaya was for fulfilling the food needs of the indigenous and immigrant communities. Gradually, the British experimented with growing coffee, gambier, sugar and rubber and established commercial estates. The burgeoning global importance of tin and rubber as profitable commodities spurred and fed industrial growth in Britain, which turned its attention towards augmenting and controlling the tin and rubber industries in Malaya. Sadka observes that driven by economic imperatives, British administrators were concerned about 'how to fill empty lands, develop mining and commercial agriculture and establish a modern system of communications' (1968: 381). Indeed, the establishment of roads and railways in Malaya was justified in light of the colonial-capitalist project. However, in order to execute these missions and other public works projects, the labour question would first have to be addressed.

Sustaining an Extractive Economy: The Labour Conundrum

The increase in rubber production and tin mining, as well as the urgent need to build infrastructure to sustain a capitalist export economy, necessitated the availability of large and cheap labour pools. From as early as the 1860s, rumblings of labour shortages, the challenges and high labour costs associated with overseas labour recruitment, and problems of labour retention reverberated through the reports and accounts of miners, planters, public workers and government officials in Malaya. These fears were not unfounded. Imported labourers, while screened in their home countries for 'quality' and fitness for labouring, could be – and were – rejected upon their arrival in Penang. They were judged as being unsuitable as labour due to illness or on suspicion that they had been recruited through illegal and illegitimate methods (Jackson 1961). The British relied overwhelmingly on imported labour, given that the local labour force – even if mobilized and fully engaged in agricultural and nonagricultural mineral economic activities – was not large enough and unsurprisingly not as willing as immigrant labour to be employed as wage labour. Chai observes of the Malays: 'When they worked it was for themselves, on their land, and very few could be persuaded to accept employment as agricultural labourers or on public works' (1967: 98–101). This has been noted by other scholars, including Drake:

> The need for immigrant workers was first felt in the middle of the nineteenth century when the Malays were unable, or unwilling, to provide (at prevailing wage rates) the labour necessary to achieve the much higher level of tin production promised by the new discoveries of ore … Moreover, such mining as was done by Malays was a part-time activity, carried out during the slack period of the rice-growing cycle. A large and full-time labour force was required to work the new-found tin deposits in Perak and Selangor. (Drake 1979: 278)

According to colonial logic, an imported, transient labour force was required for the 'capitalised export economy which operated alongside a labour intensive subsistence economy' (Kratoska 1982: 281), through the nineteenth and twentieth centuries in Malaya. Kratoska highlights that much of this production was confined to the western coast of the peninsula – in the states of Perak, Selangor, Negeri Sembilan and Johor – and dominated by the production of tin and rubber (ibid.: 282). For Malaya, the result was an 'unbalanced production' (King 1939: 136) in the agricultural sector where the economy was 'characterized by the extensive cultivation of crops for export markets, and the total inadequacy of the food-crops grown in the country to supply local demand' (ibid.: 136). It was a curious situation where Malaya produced less than half of the local demand for

rice – a staple crop (Kratoska 1982) – while rubber cultivation consumed 'nearly two-thirds of the cultivated area and accounts for 90 per cent of the value of the export trade in agricultural products' (King 1939: 136). This gave rise to concerns relating to adequate food supplies and, ironically, from 1918, Malaya had to import rice for local consumption, as noted by Kratoska (1982).

The tin mining industry was dominated by Chinese labour funded by European and Chinese capital investment, and saw the Chinese moving away from the Straits Settlements to tin-rich states in the Malay Peninsula (Leinbach 1975: 262). Deposits of tin had been discovered in the Larut district in 1848, which attracted Chinese labour as well as capitalists. The earliest labour inflows to the mineral-rich regions were thus from China, which 'came in response to the rapid growth of tin mining and government works, which … were related activities' (Drake 1979: 279). Subsequently, from 1910 to the mid-1930s, the imported labour force was diverse, attracting 'Indians, Chinese, and Indonesians' (ibid.: 279) to the global booming rubber industry, of which Malaya was a key player. This reliance and dependence on immigrant labour created challenges and vulnerabilities for owners of rubber plantations, tin mines and government departments. In 1896, the Resident-General of the Federated Malay States (FMS, comprising Perak, Selangor, Pahang and Negeri Sembilan) spoke approvingly of the government allocating money for recruiting Indian labour, which was deemed essential for building the railways as well as public works, hoping that immigrants would take up what seemed to him to be an attractive employment opportunity:

> The government also voted last year $30,000 for the introduction of Indian immigrants and, while some hundreds of these have already been imported for railway work, little if any advantage seems to have been taken by people of Southern India of the facilities offered by the Government by way of free passages etc. to the Malay States … But the government still requires labour for the Railway and Public Works Departments, and free passages and higher wages should induce the Indian labouring classes to emigrate. (FMS 1897: 1)

The Resident-General's *Annual Report of the Federated Malay States for 1899* foregrounds labour as 'the most important question of the year under review and of the present moment' (FMS 1900: 2). He adds:

> The scarcity of Chinese and Indian labour is now so great that not only is it necessary to pay double and sometimes treble the wages current a few years ago, but the scarcity has been so great that the most important works, railways, irrigation, roads etc. have been seriously delayed. (Ibid.: 3)

The same lament about labour scarcity and the urgent need to secure labour even at higher costs are expressed by government officials, year after year. Despite the early presence of immigrant workers from China and Java, the greatest demand in Malaya was for Indian labour, which was also sought-after globally. Mahajani (1960) dates the emigration of Indian labour to Malaya in the early 1830s, when Tamil and Telugu labourers from India were brought to work on the coffee and sugar plantations. Between 1881 and 1940, almost three million immigrants (Sandhu 1962) came to Malaya from India, although large numbers also returned to India.

In Malaya, much of this labour was drawn from the lowest rungs of the Indian class and caste hierarchy – that is, from the non-Brahmin and *Āti Tirāviṭa* communities (Arasaratnam 1979; Mani 1977; Sandhu 1969). Between 1786 and 1957, 65.3% of the total Indian migrants to Malaya belonged to the labouring sector (Sandhu 1969: 159); in addition, up to 98% of the labour migrants to Malaya were from southern India (ibid.). The population was differentiated along caste, linguistic, regional and religious lines, although an overwhelming majority came from a Hindu background (Sandhu 1969). The North Indian migrants arrived through different recruitment mechanisms and conditions, many of whom were employed in the security services and the police force (Sandhu 1969; Rai 2004).

The indenture system of recruitment was used to secure Indian labour for Malaya until 1910, when it was abolished. The years between 1844 and 1910 saw 250,000 indentured labourers flowing into Malaya (Sandhu 1969: 81). Thereafter, Indians were recruited through the *kangani* (overseer*)* system, which provided south Indian labour for Malaya, Burma and Ceylon (Mahajani 1960; Sandhu 1969). Kaur provides the following comparative figures for the indenture and *kangani* systems of labour recruitment in Malaya:

> The peak of *kangani*-assisted recruitment occurred in the 1910s, when about 50,000 to 80,000 Indian workers arrived per annum. During the period 1844–1938, *kangani*-assisted migration accounted for 62.2 per cent of the total Indian labour migration compared with 13.0 per cent of indentured labour migration. (Kaur 2004: 68)

Indian labour was employed in rubber plantations, the nonagricultural mineral economy and public works projects across the Malay Peninsula and Singapore. These arrivals were essentially unprepared to perform manual work under harsh conditions, lacking experience or expertise in the plantation and infrastructural tasks that were given to them. In Malaya, one witnesses the *making* of immigrants from diverse agricultural and artisanal backgrounds into *colonial labour*, which was no doubt traumatic, with devastating consequences for the immigrants'

physical and mental health. The Straits Settlements Labour Commission was set up in 1890 to investigate the state of the labour in the Straits Settlements and the Protected Malay States and to consider how immigration could be encouraged to meet the growing need for labour in these territories. The *S.S. Labour Commission Report of 1890* records that the arriving immigrants were often misled and tricked into boarding the ships bound for Penang:

> in most cases when weavers, *dhobies*, cooks and other men break down, it is because they have been deceived by their recruiters, who tell them they will only be required to practise their own trades. Then when they are required to use the *changkol* and do hard work they lose heart and strength, deteriorated into 'hospital birds' and swell the death rate. (Paragraph 4, cited in Jackson 1961: 99)

Government officials were not unaware that many Indian immigrants had not been previously employed in the kinds of jobs they were assigned upon their arrival on Malayan shores. Jackson cites early complaints from European planters in Malaya that emigrants were not suited to labouring tasks, which was recognized in government accounts too:

> There were many more newly arrived Immigrants on the Estate (Batu Kawan Estate) and *they are men who before arriving here have, in nine cases out of ten, never held a changkol in their hands before*. I have heard that an outside planter of experience well up in diagnosing these Indian Immigrants and who had seen them, confirms this statement and says they have been principally weavers before coming here – a very different occupation. (*S.S. Gazette*, 1879: 556, cited in Jackson (1961: 62–63), emphasis added)

> Some few of the emigrants bring their wives and children with them, but the greater number are single men. *Comparatively few seem to have been field labourers in their own country, as it is generally some time before they become accustomed to the work they are put to.* During the last few years, at least a third of the emigrants have been weavers, this branch of industry being apparently on the decline in their own country. (*J.I.A, (New Series)*, 1862, vol. IV, cited in Jackson (1961: 62–63), emphasis added)

Despite this awareness, Indian immigrants continued to be sought-after, as labour shortages were endemic due to intense internal competition for labour. Private industry – miners and planters alike – complained that the government was their principal competitor. Indeed, the colonial government 'was one of the largest

employers of *Kangani*-recruited labour for the public works department and the railways. It also recruited free labour directly under the aegis of the IIC and the Tamil Immigration Committee' (Kaur 2004: 137). There was heightened demand for Indian labour in Burma and Ceylon, which offered 'cheaper passages, higher wages and more attractive conditions' (Jackson 1961: 97) and in Uganda and South Africa. The Acting Resident-General of the FMS, R.G. Watson, wrote in 1909 that incoming immigrants had to be shared and alluded to ongoing tussles with other colonies for securing labour: 'of the 3013 statue immigrants brought over for the states, 518 were for government departments, the remainder for labour on estates; it is reported that the competition by recruiters for Fiji and Natal was somewhat tense' (FMS 1910). W.H. Treacher, the Resident-General of the FMS, complained in 1903 that the demand for labour far outweighed supply and was 'met in driblets' (FMS 1904: 14). Consequently, considerable efforts seem to have been made to procure Indian labour, including working the ground in India itself:

> The Protector of Labour is to reside for six months in each year in South India, travel and advertise the 'inducements' in likely districts, issue licenses to approved native and other recruiting agents and sanction advances to them by the Madura Company, who have been appointed the Government Financial Agents in this regard … The planters are fully prepared to pay good wages – seven *annas* a day for men and five for women – have been agreed upon – to take all reasonable care as to the comfort and health of the immigrants, and to pay their share of any necessary Government expenditure on recruiting. (Ibid.: 14)

These exertions were driven by the perception that Indian migrants made ideal labourers – suited for manual work, uncomplaining and pliant. K.S. Sandhu, a prominent historian of Indian migration to Malaya, expresses the following widely held view among employers of labour in Malaya:

> Altogether, the South Indian was perhaps the most satisfactory type of labourer, for in addition to being a British subject, accustomed to British rule, *he was a good worker, not too ambitious and easily manageable.* He had none of the self-reliance nor the capacity of the Chinese, but he was the most amenable to the comparatively lowly paid and rather regimented life of estates and government projects. He was well-balanced, docile, and had neither the education nor the enterprise to rise, as the Chinese often did, above the level of manual labour. *These characteristics of the South Indian labourer made him all the more indispensable as a worker.* Apart from economic reasons, Indian immigration was also desired by

> British officials as a political move to counter balance the great number of Chinese in Malaya. (Cited in Chong-Yah (1967: 186), emphasis added)

A rather more unrestrained and negative portrayal of Tamils as the best estate coolies was published in the *Selangor Journal* (1894), where a European planter, adopting a self-serving stance, advised 'would be planters' as follows:

> The labourers available in this country are, as everyone knows, Tamils or Klings, Malays, Javanese and Chinese. To take Tamils first: as general all-round estate coolies, I believe the people of this nationality, as imported direct from India, to be second to none in the world and I should advise the intending planter to secure as many of them as he can possibly find work for. *Quiet, amenable to discipline, very quick to pick up and adapt themselves to any kind of work, they are when they come in from their country, or their cost as they call it, the best servants to a just master, and they will often settle down on an estate and remain there, content with considerably lower wages than they might procure elsewhere, if they are treated with fairness and consideration*. A Tamil *likes* a hard master; they even have a saying that 'the master who doesn't get angry doesn't give good pay'; but he is worse than useless if treated unjustly. (*Selangor Journal* (3)3: 44–46, cited in Jackson (1961: 106), emphasis in original)

Thus the demand for Indian labour in Malaya was 'exceptionally high' (FMS 1904) in the early decades of the twentieth century too, aligned with global demand. Push factors included 'famine and widespread unemployment' (Drake 1979: 283) in India. Yet, government officials were puzzled by the lack of enthusiasm on the part of Indians to sign up for work in Malaya, despite what seemed to them to be attractive employment opportunities. The Resident-General of the FMS observed in 1899:

> the government has gone into the market with other employers, and makes every effort to obtain recruits from Southern India on terms most favourable to the immigrant. We have met with very little success. We are now in the position of offering free passages, very high wages, quarters, medical attendance and perfectly reasonable work in a climate similar to that of their own homes, but we cannot induce the surplus labouring population of India to leave their over-populated land for an easy life and plenty in the Malay Peninsula … It is certainly rather curious that while the Chinese have come in hundreds and thousands, without any special protective legislation, the poor of British India seem to prefer starvation at home. (FMS 1900: 3)

While some Indians were indeed reluctant to venture overseas for work, the decision was not entirely in the hands of individuals. As early as 1837, the East India Company's regulations controlled the emigration of Indian labour, first from Calcutta and then from Madras. Shirras identifies three phases of Indian migration: the movement of indentured labour, first, between 1833 to 1908; second, between 1908 to 1922, with the formulation of a national migration policy; and, finally, in the post-1922 period, when this policy was executed (1931: 595).

In the first phase, the story of Indian indentured labour can best be described as one of stops and starts. Migrations to Ceylon, Mauritius and West Indies began after the end of slavery, but were suspended due to labour 'malpractices' and high levels of 'mortality' (ibid.: 596) during voyages. Shirras reports that: 'Emigration to Natal was stopped between 1866 and 1874 because of unsatisfactory conditions of labour' (ibid.). Probably the first ban on the movement of Indians was instituted in 1839, in response to reports of abuses of recruitment practices (Allen 2008). Under pressure from colonies as well as planters and miners, the ban was overturned to allow the export of Indian labour to Mauritius and then to other parts of the British Empire, such as the Caribbean. At the same time, a staggering number of new laws were conceived in the mid-nineteenth century (Shirras 1931) to address complaints of labour abuses and deaths during transportation due to the negligence of shipping agents. Striking amongst these was the Act XXIX of 1856, when the Government of India, 'for the first time took steps to protect its own nationals during their residence in the colony' (ibid.). This Act 'empowered the Government of India to suspend emigration to any colony which had not taken measures to protect emigrants on arrival or during the residence or to provide for return passage to India when the emigrant was entitled to it' (ibid.: 596). Despite attempts to regulate emigration and ensure that recruiters, employers and shipping agents were compliant, the system continued to be abused and labourers were mistreated and exploited by employers. During the latter half of the nineteenth century, these issues continued to surface repeatedly, and the plight of overseas Indian labourers was acknowledged to be less than ideal.

In the second phase, migration policies ended the indenture system in 1917, and the Emigration Act of 1922, which regulated the movement of 'unskilled labour' (Shirras 1931: 599), came into force. Malaya too felt the pinch of restrictions on Indian labour movement, as noted by E.L. Brockman, the Chief Secretary, in the *Annual Report of the Federated Malay States Railways for 1917*: 'The Indian government placed restrictions on emigration from India but gave permission for 82,000 assisted adults over 18 years of age to come to Malaya' (p. 10).

By the 1920s, Indian labour migration was highly regulated and labour was commoditized. As might be expected, the end of indenture was not well received by colonial officials globally. The South African statesman Sir Thomas Hyslop's

declaration that 'We want Indians as indentured labour not as free men' (Kondapi 1951: 7) has been quoted widely – a rather extreme expression of a 'slave-owner mentality' (Sandhu 1969: 46). With the end of indenture, labour shortages grew worse, with a greater, almost total, reliance on the *kangani* system, but there was also scope for voluntary – that is, 'free' – migration.

The Tamil Indian Immigration Fund[2] had already been established by the British in 1907 to control the flow of Indian labourers and to circumvent the problems of the *kangani* and indentured systems of labour recruitment (Rengasamey and Sundara Raj 2012). The Labour Code of 1912 also 'laid down certain requirements regarding working hours, pay, housing and accommodation' (Hagan and Wells 2005: 146), which were not always adhered to in practice. In Malaya, the end of indenture was not welcomed, although there was some confidence too amongst the authorities and employers alike that the *kanganis* would eventually deliver the much-needed labour: 'The abolition of indenture labour has caused a good deal of anxiety to the department, as the practice of obtaining coolies locally – by outbidding the employers who import them is not a practice to be commended' (FMS 1911: 7).

At the turn of the twentieth century, in response to political pressure, the Indian government raised the issue of the welfare of Indians employed overseas again (Hagan and Wells 2005) – including with the authorities in Malaya – and refused to allow further immigration unless these matters were addressed. This was in response to persistent reports of dismal living conditions and exploitative working environments for Indian labourers in Malaya. The Indian government invested considerable energy and resources in regulating Indian labour flows to the colonies, but not necessarily out of concern for labour; rather, this involved an element of national 'pride' and some degree of self-interest. In 1931, Shirras reflected on the weight of public opinion and the government's position on this matter:

> Coolieism has impaired India's national dignity in the eyes of the world. The unskilled labourer or coolie has been taken as representative of the entire population. For this reason, if for no other, the whole question of emigration requires careful control. (Shirras 1931: 604)

However, given the demand for labour, the movement of Indians continued, despite governmental reservations and the theoretical assurances granted by labour-related laws and codes. In addition to *kangani*, greater emphasis was accorded to free movement, which saw more Indians venturing to British colonies.

Another challenge for Malayan employers was retaining Indian immigrants. The labour woes of planters, mine owners and government departments

were amplified, given the significant number of desertions, as immigrant workers sought better employment opportunities (Datta 2021; Jackson 1961). Furthermore, South Indian migrants – more than 50% of the total migrants – preferred to return home at the end of their contracts, as noted by Kratoska:

> The immigrant workforce was transient, and employers continually had to replace labourers returning home or seeking new opportunities in expanding Malayan economy. Between 1911 and 1920, for example, though some 908,000 immigrants came to Malaya from South India, 562,000 returned. (1982: 282)

Despite these obstacles, the British invested significant energy and resources in procuring Indian labour, a large proportion of which was key in constructing colonial railways in Malaya. Critics have challenged – and some have resoundingly rejected – the portrayal of the railways as a gift to the native population, while acknowledging some positive outcomes, which in Max Weber's (2013 [1905]) terms, can only be denoted as the 'unintended consequences' of history. By and large, the railways did not spur economic growth in the colonies, where industrial development was limited at best. In '"But What about the Railways …?" The Myth of Britain's Gifts to India' (2017), Shashi Tharoor makes the point in graphic, colourful language, without political correctness:

> Apologists for empire like to claim that the British brought democracy, the rule of law and trains to India. Isn't it a bit rich to oppress, torture and imprison a people for 200 years, then take credit for benefits that were entirely accidental? … The railways were intended principally to transport extracted resources – coal, iron ore, cotton and so on – to ports for the British to ship home to use in their factories. (Ibid.)

Colonial railways – intended to move soldiers, labour, supplies, raw materials and commodities – served as an instrument of colonialism (Headrick 1988). Much has been written about why the railways did not herald economic growth and industrial modernity for India (Bogart and Chaudhary 2013; Roy 2018, 2019) while they positively impacted industrial development in Britain. Part of the answer for this lies in the fact that the business model adopted by the British government in the mid-nineteenth century did not encourage the growth of local industries (coal, iron or steel), train local manpower in managerial skills and capacities or transfer the technologies and expertise required to operate the railways. Satya argues that 'the Indian railway project was a good example of colonial capitalism whereby productivity was raised without mechanisation, and a capitalist labour market developed in a pre-capitalist economy, labour relations

of organisation involving Indian gangers, *sirdars, muccumdums, mistris*, etc' (2008: 73). Thus, even as the expanding railways were integrated into the vast Indian landscape, India remained predominantly agricultural, without realizing the anticipated growth in local industries and the much-touted technological transfer and expertise. For Malaya, Kaur makes a similar observation:

> The railways were essentially part of a system of colonial economic penetration; connected to Europe by way of the ports, they made possible the rapid carriage of goods. Thus, they had practically no 'multiplier' effect on the local economy; almost all the materials, skills, and labour (and to some extent the fuel) necessary for railway construction and operation were imported from abroad. (1980c: 696)

Kaur also observes that the advocates of railways found it 'more convenient to import railway materials from countries where those industries were already advanced than to develop an indigenous modern iron and steel industry' (ibid.). In contrast to others who have argued for the positive and favourable effects of colonialism on the Malayan economy (Chai 1967), Kaur delivers a more damning verdict:

> In effect, the railway system facilitated the 'reproductive' capacity of the country as the progressive exposure to, and domination by, capitalism resulted in the intensification of mining activity and the emergence of new economic activities such as rubber cultivation … Thereafter, Malaya began to play the classic role of a country at the periphery of the capitalist system, exporting primary production and importing manufacturers [1980c: 710].

Kaur has demonstrated that in Malaya, 'railway construction failed to stimulate industrialization' (ibid.: 699) and that 'Colonial policy was extractive rather than developmental' (ibid.). Throughout the colonial period, railway hardware and software – engineering, technologies, locomotives and carriages – continued to be imported to Malaya from Britain. This did not provide 'a stimulus for the establishment of domestic heavy industry' (Kaur 1980c: 696).

The economic development of Malaya in the closing decades of the nineteenth century saw firm government interventions to protect the interests of European and Chinese capital investments in the region. Establishing telegraphic, postal, transport and communication networks as well as legal, administration and regulatory schemes was crucial, and privileged the interests of the colonial government and private industry alike. Labour was needed to sustain both a large-scale agricultural and a nonagricultural mineral economy in Malaya. Remarkable

interimperial collaborations globally enabled a continuous and uninterrupted supply of labour at reduced costs. The project of constructing railways in these regions was deeply entangled with trans-Asian labour flows. I now turn to the colonial project of building railways in Malaya and argue that this was inextricably connected to the global story of industrial capitalism, with labour as a vital, but often neglected, constituency.

From the Federated Malay States Railways to Malayan Railways

Building railways in nineteenth-century Malaya was irrefutably conceived as a colonial project, entwined with the demands and ambitions of industrial capitalism. Drake notes that the colonial imagination for unbounded economic growth in Malaya was exemplified in 1896 by Sir Frank Swettenham, Resident-General of the FMS, who 'enunciated his view of official duty – to open up the country by great works: roads, railways, telegraphs, wharves' (1979: 274).

In the first instance, the pattern of railway networks in Malaya was determined by the sites of the tin mining industry and its needs. Railways were built first in the three tin-producing west coast states of Perak, Selangor and Negeri Sembilan, where British Protectorate control was exercised. The story of rubber plantations in Malaya is complex and multifaceted, and saw the arrival of Indian and Javanese labour and 'European capital, enterprise and management' (ibid.: 279). The growth of the rubber plantation economy in British Malaya subsequently intensified the construction of a transportation network. As Chai remarks, 'originally built to serve the tin industry, the railways served not only strategic or administrative purposes but also the rubber industry which was to dominate the world's supply of this raw material and give Malaya wealth and prestige undreamed of' (1967: 195). The subsequent expansion of the railways in Malaya was not just driven by internal pressures, but was also 'associated with global economic shifts; as the Cornish tin industry became exhausted, deposits in Bolivia, Malaya and Nigeria were turned to' (Jackson 2013: 130). The rapidly expanding tin industry was a great impetus for more efficient modes of transportation, given that 'roads were very poor, bullock carts satisfactory. It was in this context that the railways made its first appearance in the 1880s' (ibid.: 130–1).

In a geographical landscape dominated by rivers and waterways as traditional modes of transporting goods, the building of a network of railways, and then roads, was undertaken primarily to link the mines with the coastal ports. Interestingly, railways came to Malaya before roads. Chai observes: 'At the time of the Pangkor Engagement, there were no roads in the Malay States, but between 1881 and 1910, 1728 miles of roads of various classes were constructed' (1967: 194). Scholars writing on the Malayan case have observed this

to be a period of intense competition between road and rail (Leinbach 1975; Kaur 1980b). The railways were integrated with river launches to function as a feeder to the railways before roads were built. The expansion of road and railway networks was driven by escalating commercial interests in these territories with rich offerings of minerals and resources integral for industrial-capitalist development.

Railway historians of British Malaya (Kaur 1985; Leinbach 1975; Shamsuddin 1985) have identified three main phases of railway building in the region. Kaur, a scholar who has pioneered research on the history of immigrant labour and transportation networks in Malaya and Southeast Asia, provides details of railway construction between 1880 and 1931:

> three phases of railway development may be distinguished which coincided approximately with the three stages of British political involvement in the country. In the first period (1880–96) short latitudinal lines were built in the western half of the peninsula to serve the tin-mining areas. These lines linked inland producing centres with coastal ports … The second period of railway development (1897–1909) was marked by the construction of a north-south trunk line which connected the original latitudinal lines … Railway development in the final stage (1910 – 31) served the needs of the plantation sector, which was not locationally specific to the western part of the peninsula. (Kaur 2004: 135)

Yet the story of the railways in Malaya does not begin with the appearance of the Federated Malay States Railways (FMSR) in 1901. There were several important forerunners, numerous state-level railways, which had a substantial and successful run prior to their consolidation as part of the FMSR. These included the following: Johore Wooden Railway – whose tracks and rails were made of wood – had a brief run starting in 1875 and lasted until the 1880s (Kaur 1980a; Selvaratnam 1985a); Perak Government Railway (1885–1901) – the earliest of the colonial railways in British Malaya – served the tin mines within the state, operating two lines: the Taiping line between Parit Buntar and Port Weld, and the other between Enggor and Teluk Anson; Selangor Government Railway (1886–1908) (Sidhu 1965), originally used to transport goods between Klang and Kuala Lumpur; Muar State Railway (1890–1929) (Kaur 1981), where the railway line in the district of Muar transported agricultural goods and passengers during its almost forty-year existence; Sungei Ujong Railway (1891–1901) in Negeri Sembilan, which operated a line between Seremban and Port Dickson; and the Prai-Bukit Mertajam line in Province Wellesley, which opened in 1899 and enabled the transportation of rubber and tin to the harbour while the Prai–Port Dickson line was being completed.

Swettenham's role in triggering railway construction in Malaya is well known. Writing in 1893, he had already proposed railways in the mineral-rich state of Perak (Babulal and Ariffin 2019: 145). But Swettenham was also instrumental in calling for the integration of the existing state railways into a larger network. This plan to link the vastly scattered lines received support from the colonial office on the rationale that a connected rail system would be beneficial in availing unused lands for agricultural activity and diversifying the region's sources of revenue. Various authorities argued that links between the FMS and the SS would lead to greater administrative governance and efficiency.

In the first phase of railway construction, Hugh Low, the British Resident of the state of Perak at the time, proposed the building of a short line between Taiping and Port Weld in 1880. The project was approved and allocated government funding, but it stalled due to an 'acute shortage of experienced labour' (Wijaesuriya 1985: 34). The construction of the 12 km line began in 1883 when:

> two divisions of the Ceylon Pioneers were made available by the Government of Ceylon. The pioneers were the Military Corps organised by Sir Edward Barnes in Ceylon [now Sri Lanka] for the construction of military roads. They had previously acquired valuable experience in railway work while constructing the Nawalapitiya to Nanu Oya line of the Ceylon Government Railway which traversed difficult mountainous terrain. (Ibid.)

From the outset, then, the task of laying tracks on Malayan soil was entrusted to external expertise. The Taiping–Port Weld railway line was completed in 1884 and opened the year after for transporting tin from the mines to the coastal ports, given that the growing volume of traffic in tin could not be sustained by river transportation and that a 'more efficient transport' system was needed and that 'the answer was the railways' (Drake 1979: 273). A number of mineral railway lines were laid over a decade:

> Between 1885 and 1895, four short lines were laid, each connecting a coastal port with a tin field in north-western or west-central Malaya. By 1903, a north-south trunk line joined the mining towns, and by 1910 the trunk, paid for entirely out of the revenue of the FMS, ran from Prai (opposite Penang) to Johore Bahru (opposite Singapore). (Ibid.)

In the second phase of railway construction, rubber plantations along the west coast were connected by rail to Kuala Lumpur, Ipoh and Penang (Kaur 1985; Shamsuddin 1985; Smith 2006). After the turn of the twentieth century, multiple mineral and plantation lines were built across Malaya, primarily driven

exclusively by a profit motive, with reduced costs of building and operating these railways.

After the establishment of the FMS in 1896, the FMSR officially came into existence in 1901, acquiring and consolidating several pre-existing state railways, which had operated autonomously up until then. The FMSR acquired and integrated the assets of the Perak and Selangor railways, which were the first to be connected, while the Malacca Government Railway was absorbed in 1905. The *Annual Report for the Federated Malay States for 1923* records the expansive sweep of the FMSR as follows:

> The FMS Government owns the railways both in the FMS, SS and the Unfederated states of Kedah, Perlis and Kelantan. It has leased the Johore State Railway (120 m[iles]) extending from Johore Bahru at the southern extremity of the Peninsula and opposite Singapore island, to Gemas on the boundary between Johore and FMS.

In the final phase of railway building in the first decade of the twentieth century, the following new lines were built: the Singapore Government Railway, also known as the Singapore-Kranji Railway (1903–12), the Malacca Government Railway (1905–6), the Johore State Railway (1909–12) and the Sarawak Government Railway (1915–47). In 1918, the FMSR network was connected by rail to Thailand as well, covering a distance of 1,188 miles between Singapore and Bangkok, linking with the Siamese State Railways in 1918 (FMSR 1924: 20). The British ambition to establish a rail connection between Malaya and Thailand was realized in this pan-Asian railway network. Several rail extensions on the West Coast and East Coast Lines were deemed necessary in order to make this possible:

> An extension has been made from Pasir Mas in Kelantan and runs in the westerly direction for 12 miles to the Golok River at the Siamese boundary, where it joins the Siamese line running to Haad Yai Junction, 145 miles distant, where a junction is made with the main Bangkok-Penang-Singapore line through working between the FMS and Kelantan via the Siamese State Railways commenced on November 1st 1921. (Ibid.)

In contrast to the financing of the railways in India, which was largely undertaken by private railway companies, the railways in Malaya were sponsored by funds from various state governments. For example: 'The Malacca Line was constructed by the FMS Railway Department for the Government of the Straits Settlements and then taken over by the Federated Malay States, the cost of construction being paid by the FMS to the colony' (FMS 1906). This was deemed

not to be an ideal arrangement – government officials expressed concerns about the drain on state revenues and about having to defer any profits that might accrue from the railways in due course. Writing in 1897, the Resident-General of the FMS noted that:

> Malayan railways are still in their infancy, and in spite of their healthy appearance, they grow but very slowly. The explanation is that, though they pay better than other railways, and are built at a comparatively low cost, they have to be constructed out current revenues. (FMS 1897: 1)

Railways in Malaya were, eventually, profitable, as the costs of construction and maintenance were consciously kept depressed in the interests of efficiency, which translated into lower wages for labour. The railways were used for moving goods and produce like rice, tin, kerosene oil, firewood and livestock, but also saw enhanced passenger mobility across the entire network as early as 1909, when 110 train stations had been opened and, 'the number of passengers was 7,262,830, an increase of 87,090' (FMS 1910a) over the previous year. In 1921, the railways in Malaya carried a staggering total of 13,401,532 passengers (FMSR 1923: 4) and gradually registered an increase in passenger and goods traffic over the years, which meant larger revenues for the railways. These figures indicate that the railways – though built for sustaining a capitalist colonial economy – had transitioned to carrying substantial passenger traffic too.

The history of the railways in Singapore is complex and is a substantial independent project in itself, beyond the remit of the current one undertaken in this book. Only a brief historical sketch is possible here. The precursors of railways on the island were steam and electric tramways, which made an appearance in the final decade of the nineteenth century. The Tramways Ordinance of 1882 laid down the routes for five tram lines to be built on the island. The Singapore Tramways Company Limited was founded on 8 December 1883 and construction work commenced in 1884, with the laying of the first rails on 7 April 1885. The Kranji Electric Tram Company ran between 1885 and 1894, and an electric tram system was opened in the city on 25 July 1905 and gradually expanded with the city (Tan, n.d.). By 1907, it was operating sixty trams on more than twenty-six miles of track. It closed in 1927 when buses took over (Wilton-Jones 2022). In addition to this elaborate tram network on the island, the one-mile-long Tanjong Pagar Dock Company steam railway on Tanjong Pagar wharf was built by Chinese labour. The Singapore Government Railway (SGR) tracks were constructed between 1900 and 1902 and the line was opened in 1903, functioning autonomously until 1913, when it was purchased by the FMSR. The railway network spanned the entire island during its run, with stations at Bukit Panjang, Bukit Timah, Holland, Cluny, Newton, Tank Road, Borneo Wharf, Pasir Panjang,

People's Park and Mandai, and with railway yards at Kranji, Bukit Timah and Kampung Bahru (ibid.).

Between 1929 and 1932, the line between Bukit Timah and Pasir Panjang was rerouted to create a new route with stations at Tanglin, Alexandra and Tanjong Pagar (ibid.). This expansive system facilitated passenger movement and reduced travel time, although the earliest trains ran at no more than 30 km/h (Teo 2019). In 1923, the Causeway – with two rail lines and a road across the Johor Straits – connected the island of Singapore with the Malayan Peninsula. In 1932, the Tanjong Pagar station opened in Singapore, pushing the railways into the interior of the island and providing direct rail connectivity from Singapore to Thailand. With the opening of the FMSR station at Keppel, several of the stations (Tank Road, Cluny, Newton and the old Bukit Timah stations) along the original SGR were closed permanently (Wilton-Jones 2022), while several new ones were constructed at Alexandra, Tanglin and Bukit Timah (ibid.). Until the appearance of the new station at Keppel, passenger trains bound for Kuala Lumpur used to start from the Tank Road station (McNicol 1985; Teo 2019).

In June 1932, Sir Cecil Clementi, the Governor of Singapore, opened the new terminal station – the Keppel Road Railway Station – at Tanjong Pagar. Speaking at a manufacturer's exhibition at the station, he expressed that he had 'not the slightest doubt that, for centuries, this Singapore terminal station will stand here as one of the most nodal points in the whole world's scheme of communications' (The Strait Times 1932). He spoke in rather lofty, grandiose terms about the historical significance of the new station:

> We stand here at the southernmost tip of the continent of Asia; and, since the Johore Strait is now spanned by a causeway which was opened for traffic on June 28, 1924, we may even say that we stand at the southernmost tip of the mainland of Asia. This point is, therefore, a real terminus as well as a natural junction between land-borne and sea-borne traffic; and it is very right that the terminal station of the Malayan railway system should be built at Singapore, the gateway between the Pacific and Indian Oceans and immediately opposite the Tanjong Pagar docks, where every facility will be afforded for interchange between railway and ocean shipping. (Ibid.)

By 1932, 26 km of tracks had been laid across the island of Singapore as part of the north–south line, providing rail connectivity to the west coast of Malaysia and into Thailand. The older Bukit Timah Station in Singapore had been constructed much earlier in 1902 and opened in 1915 as part of the Singapore-Kranji Railway, which the FMS government bought in 1918 for a sum of $4.13 million (Tan 2018). Plans for a new railway line and station in Singapore were approved

by the Straits Settlements Legislative Council in 1929 (Koh et al 2006), which meant laying additional tracks between the Bukit Timah Station and Tanjong Pagar.

Several industrial and military railways also operated in Singapore in the 1920s and 1930s, an example being the Admiralty Railway, a side branch built in the 1930s to serve the naval shipyard at Sembawang (McNicol 1985; Teo 2019; York and Phillips 1996). The Changi Military Railway, a four-mile-long standard gauge line, was built by the FMSR for the War Department, which protected the new Sembawang naval base (Wilton-Jones 2022). By 1932, the main trunk line ran north from Singapore to Padang Besar (on the West Coast Line) and Tumpat (on the East Coast Line). This was connected by several branch lines to the railway ports of Malacca, Port Dickson, Port Swettenham, Teluk Anson and Port Weld. Steam ferry services ran between Prai (Province Wellesley) and Penang and Palekbang and Kota Bharu. The ports and harbours in Singapore and Penang were served strategically by the main trunk line. The railways owned and operated several steam and motorboats, which were used to ferry goods and passengers. Stations served the ports and industrial production centres and functioned as goods stations stocked with godowns and marshalling/goods yards to manage tin and rubber shipments.

The entire FMSR railway network was built to metre-gauge to ensure connectivity. In 1935, the FMSR boasted 1,321 miles of track, with 213 permanent stations and seventy-six halts. The railways in Malaya were essential for communication and for transporting goods as well as passengers. Mail was transported by train, and telephone wires ran parallel to railway lines, making it possible to relay voice communication and telegraphs between railway stations and post offices**.** In tandem with the spreading railway network, telegraphic and telephone lines were constructed, enabling connectivity and communication across vastly scattered regions. During its tenure, the FMSR was a major shipping channel that connected ports and harbours to the interior parts of Malaya.

The railway construction on the east coast of the Malay Peninsula stands in stark contrast to that on the west coast and the island of Singapore. The East Coast Line, from Gemas to Tumpat, took twenty-four years to build and was completed in 1931. The first stretch between Gemas and Bahau opened in 1910, and the last stretch between Gua Musang and Kuala Gris was made operational in the state of Kelantan in 1931. The 76 miles of the Gemas-Kuala Semantan Railway was the first section of the East Coast Line, which opened for traffic in 1910 and 1911, followed by the construction of the 43-mile-long Semantan-Kuala Tembeling Railway in October 1909.

Before 1910, rail and road networks were developed only in the west coast states – which had significant commercial activity and a greater population concentration – and facilitated the urbanization and modernization of these regions

(Lim 1978: 203). Kuala Lumpur rapidly became a 'railway nodal point' (Fisher 1948: 130) and, together with Ipoh, was a centre of heightened economic activities and a notable destination for labour migration and settlement. Lim highlights that: 'The east coast was relatively cut off from the effects of technological change, the pressure of direct European administration, large-scale Chinese immigration and capitalist enterprises' (1978: 150). It was only belatedly – with the completion of the East Coast Line in 1931 – that cities and towns on the east coast were 'connected with national nodes of urban development' (ibid.: 202–4). Speaking about the lack of connectivity on the east coast, King concurs: 'In contrast with Selangor and Negri Sembilan, there are large areas in Kelantan, Terengganu, Pahang, and Johore which lack communications and have not been alienated, though climatic conditions are suitable for plantation agriculture' (1939: 138). The East Coast Line was almost entirely a single-track line, which meant that trains in both directions used the same line, with passing loops near stations where there were double tracks (Figure 2.1).

The differential, divergent and uneven infrastructural developments of the eastern and western parts of the Malay Peninsula, between the 1870s and 1940s, have been noted by economic historians (Kaur 1978) and geographers (Lim 1978) alike. The delayed arrival of roads and railways to the east coast stimulated economic growth and modernization belatedly, and which 'broke the physical isolation and forged links between the subsystem and the main system' (Lim 1978: 152). However, Lim observes that: 'Both the east coast railway and the overland road link came too late to stimulate economic development or structural changes in urban development on the east coast' (ibid.: 203). The completion of the north–south railway line and the trunk road gave an impetus to development and modernization on the west coast of Malaysia, with the emergence of commercial nodes therein (Leinbach 1975: 270). Kaur also agrees that economic activity was predominantly on the west coast states, which was already the case before British rule, but 'colonial transportation policy strengthened and even intensified this earlier pattern' (1980c: 709–10). This relative underdevelopment of the east coast of the Peninsula is evident even today, as it tries to catch up with the rest of the country. In writing the railway geography of Malaya, Fisher notes:

> each major change in the political geography of Malaya since 1874 has had its counterpart in important modifications to the railway system. To this rule, the Japanese interlude is no exception, and indeed, it is probable that some of its effects may be permanent, for not all of the removed lines are likely to be restored. (1948: 134)

He further states that the Japanese occupation of Malaya left a deep imprint on its railways, reducing them to 'a state of chaos and disrepair' (ibid.: 133). During

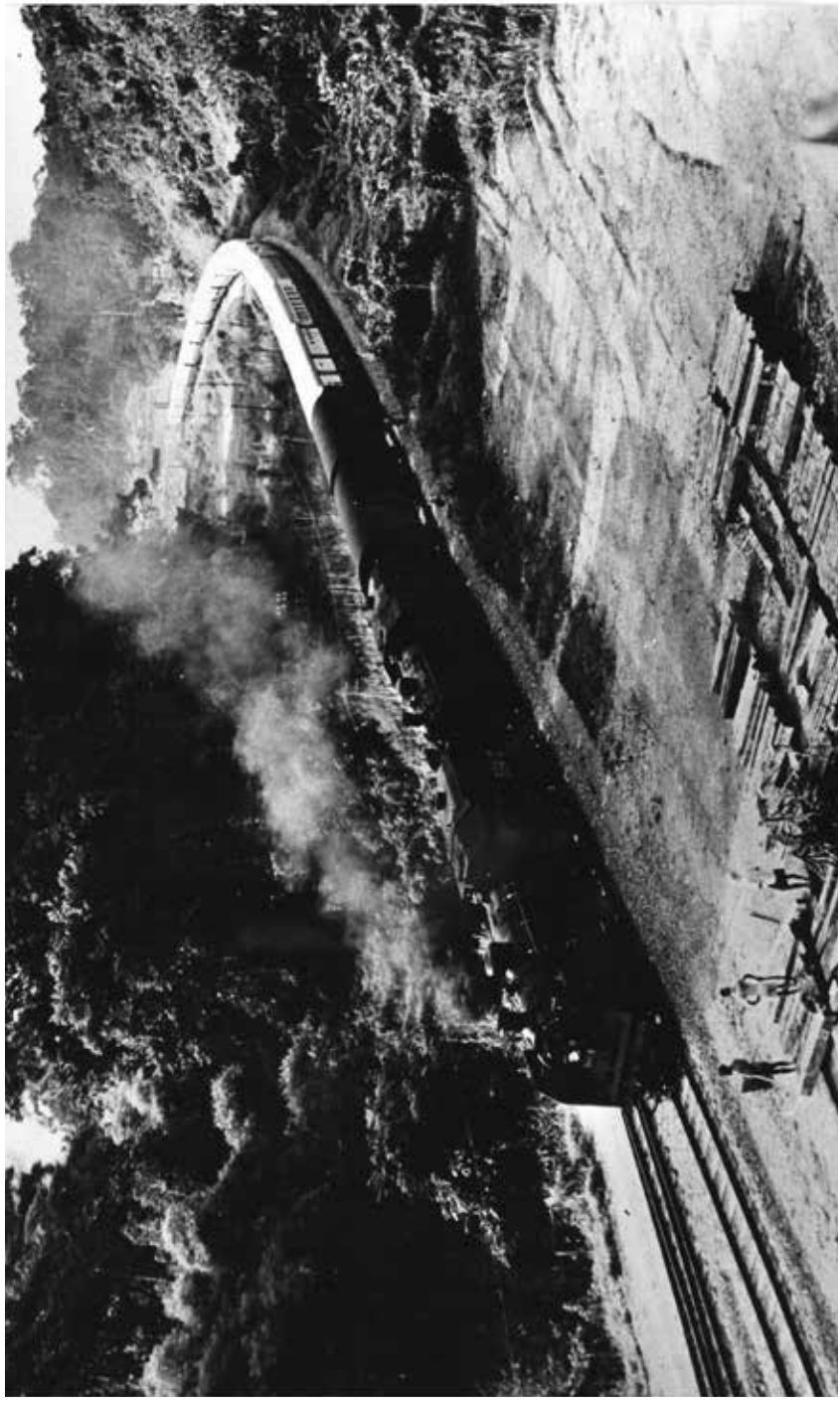

Figure 2.1. East Coast Railway Malaya, 1964. © Central Office of Information. Courtesy of the National Archives, UK, used with permission

this period between 1941 and 1945, the entire FMSR was under Japanese control and renamed Marai Tetsudo. Parts of the railway network suffered extensive damage, with many of the branch lines and depots being closed. According to Fisher:

> the Japanese embarked on a policy of railway construction in various parts of Southeast Asia in an attempt to provide overland alternatives to more vulnerable sea lines of communication, the most striking case being the Siam-Burma railway. (Ibid.: 133)

Railway quarters, accommodation and other buildings were destroyed, as reported by J.O. Sanders, General Manager of Malayan Railways: 'Out of a total of approximately 7,000 staff quarters which were in existence before the war, 260 were destroyed and 300,000 square feet of godown accommodation had been lost as a result of bombing' (ibid.: 1). About one-third of the locomotives were moved to Thailand, while others were destroyed. Passenger coaches were damaged either through neglect or conscious destruction and 'had been stripped of fittings, upholstery and windows' (ibid.). In addition to moving tracks and other railway hardware to build the Thai–Burma Railway, which was completed in 1943, the Japanese also forcibly moved railway employees: 'The Japanese, during their period of occupation, transferred approximately 750 railway employees to work on the construction of the Burma-Siam Railway, and of these nearly 200 had not returned at the end of the year' (ibid.: 63). These figures do not include the hundreds of thousands of Tamil labourers from Malaya, and many Malayan Sikhs, who were enlisted in the service of this railway construction project by deceit and coercion. A large number of these labourers lost their lives; those who did escape, and eventually returned to Malaya, were maimed, both physically and emotionally (Kratoska 2006; Narayanan 2018). R.G.D Houghton, the Commissioner for Labour at the Federation of Malaya, observes that the death rates among those working on the 'Burma-Siam Railway …was extremely high. Most of the labourers were Southern Indians though there were also numbers of Chinese and others' (Federation of Malaya 1949: 24). The modernization and restoration of the railways in the aftermath of the Japanese occupation required enormous funds, which were made available in the form of loan capital from the government. J.O. Sanders, the General Manager of Malayan Railways, wrote in the railways report for 1 April to 31 December 1946:

> Condition of Railway after Japanese Occupation – When the British Forces entered Malaya in September 1945, it was found that the permanent way between Singapore and the Siamese Frontier, and on the Port

> Swettenham and Port Dickson branch lines was intact but its condition necessitated reduced maximum speeds. Rails had been removed from 200 miles of the East Coast Line between Mentakab and Krai and also from Tronoh, Teluk Anson and Malacca branches – 276 miles of running line and 57 miles of second line and sidings no longer existed. A large proportion of the rails and fittings had been taken out of Malaya and used in the construction of the Burma/Siam and Kra Isthmus lines. A total of 10,000 feet of linear bridging (approximately 2 miles) had been destroyed or removed. (MU 1947: 1)

Major reconstruction work was undertaken by the returning British civil administration, given the extent of damage to tracks, stations, bridges, tunnels, goods yards, running sheds, fencing, wharves and the workshops of the railways, which had been neglected, destroyed, damaged or removed (Kaur 1982). As Sanders wrote in his 1946 report:

> The maintenance of the permanent way was very seriously neglected during the 3½ years of Japanese occupation and the present maximum speed is 35 miles per hour compared with 45 miles per hour in 1941. It will be necessary to reballast certain lengths of the track and renew a very large number of sleepers before the pre-war speeds can be permitted. (MU 1947: 43)

After the war, the Thai section of the tracks was sold to the Government of Thailand, and the funds were used to compensate the Malaysian government for the materials stolen by Japan during the occupation of Malaya (*Western Star and Roma Advertiser* 1946). When the occupation ended, the railway infrastructure in Malaya was in a state of disrepair, and major works were undertaken to utilize some sections as part of the railway network in Thailand. C.P. Rawson, the Chief Social Welfare Officer for the Federation of Malaya, announced the establishment of the Burma/Siam Relief Scheme, which was approved by the Government of the Federation of Malaya, being 'intended to grant relief to the dependents of labourers and others who were taken by the Japanese to work on the Burma/Siam Railway and died there' (Federation of Malaya. 1949: 13). The scheme seemed grossly inadequate in offering merely between 6–10 Straits dollars per month to the following categories of individuals: 'Aged and infirm people, widows, disabled persons, orphans whose both parents are dead and orphans with mother living' (ibid.).

Between September and December 1945, the railways in Malaya were placed under the control of the Transportation Directorate of the Allied Land Forces of Southeast Asia, before being administered briefly (between 1 January and 31

March 1946) as a branch of the British Malayan Administration, and then finally being placed under the charge of the British Military Administration. Following the founding of the Malayan Union on 1 April 1946, the FMSR was renamed Malayan Railways (MR) in 1948 and functioned as such until 1962. The period between the 1930s and the 1950s was critical for the development and modernization of transportation systems in Malaysia. The railways of Malaya were transitioning into passenger and commuter railway networks by the 1950s. By the mid-1950s, 'the revenue for passenger traffic was 33% and that of freight 67%' (Kandiah 1985: 92). However, over the next few decades, while freight traffic reduced, passenger traffic increased, generating more revenue, and Malayan Railways finally became a people's railway.

The railways were also impacted by the complex and controversial process of *Malayanization* in the country implemented in the late 1950s. At one level, Malayanization translated simply as 'the creation of jobs for Malaysians' (Selvaratnam 1985b: 99) and affected all sectors and industries. However, this assumed rather more complicated meanings and, in practice, reflected drastic shifts in employment policies along ethnic lines, including in the railway services. These new directions in recruitment altered the longstanding, historical dominance of Indians as railway employees in the FMSR and MR. These were received with disappointment and dismay by Indian railway staff, given their detrimental effects on careers and livelihoods, as will be elaborated upon in Chapter 6. The rebranding of the colonial railways as Keretapi Tanah Melayu in 1968 was driven by nationalist fervour (Stanistreet 1974). The remainder of this chapter maps the large and differentiated Malayan railway workforce, and focuses on the builders and operators of the colonial railways that had been imagined by the British and created largely, but not exclusively, by Indian immigrant labour.

Laying the Lines, Running the Railways: The Indian Factor

By 1932, the FMSR operated a total network of almost 1,700 km along the western and eastern coasts of the Malay Peninsula and in Singapore, of which 526 km was the East Coast Line, also known as the 'Jungle Railway'. Not surprisingly, the operation of this vast network needed a large pool of railway staff. As Kaur points out: 'In Malaya, the pattern of occupational differentiation evident elsewhere was also created and maintained by the Federated Malay States Railways (FMS Railways) … [and] the job categories also reflected the ethnic divisions in the country' (2004: 136) and 'reflected class stratification' (2004: 152). Railway work saw the employment of indigenous Malays, Chinese, Javanese and Indian immigrants as well as Eurasians and the British, who were placed in senior administrative and managerial positions:

> Malays were initially employed on a temporary basis to fell the trees and clear the jungle as the railhead advanced in the different states … Javanese were hired as construction workers under indenture contracts, while Chinese were recruited locally through contractors for the initial earthwork construction. Chinese were also employed in the clerical, mechanical and transportation sectors. The foundry workers in the main Sentul Railway workshops were Chinese who worked under their own contractors. (Ibid.: 137)

From the outset, the employment of Malays in railway services was an issue of public discussion and also a political one. In an early instance of their employment in the railways, in 1882, Malays were recruited as 'track labour':

> In Kedah, a trial was made with Malay labour on two gang lengths. Each gang consisted of a Tamil Tindal who speaks local Malay, a Tamil Keyman and six Malay labourers recruited by the local Headman. The Malays were informed that they were under training, and if their work was satisfactory, they would in due course be promoted to Senior Labourer, Keyman or Tindal. The District Manager took a personal interest in their training, but it is regretted that the experiment proved a failure. (Jegathesan 1954: 11)

Unfortunately, no follow-up on this initiative is provided in subsequent reports. Nor is it clear whether the failure was to be attributed to the trainees, the trainers or the training scheme itself. However, what is evident is that this *failure* justified the official narrative and the reliance on other labour sources, including cheap, immigrant Indian labour. Reportedly, early efforts were made by the railway services to attract more Malays to the workforce, but this apparently remained a challenging endeavour over the decades. At the turn of the twentieth century, there was political pressure to employ more Malays in the railways – an issue that subsequently manifested as an explicit labour policy. Thus, from the 1920s onwards, the railway department prioritized the hiring of Malays. Through the 1920s and 1930s, the annual reports of the FMSR highlight the efforts made to draw Malays into the railways, with meticulous reporting of the number of Malays trained in various railway skills and occupations. In the 1920s, the railways established a Scheme for Recruiting and Training Malays for various staff categories, including ticket collectors, signalmen, station masters, porters, gatemen, guards and pointsmen (FMSR 1925: 18). The same report provides detailed figures of Malays recruited under the new initiative, which are rare in official documents although this is understandable given the attendant political dynamics:

> The scheme for Malay Station Masters came into operation in November, 1922, and so far as one can judge at present, it has been a success. During the year under review, it continued to attract more Malays to the Traffic Department, and at the end of the year there were 25 qualified Malay Station Masters in charge of stations and 15 under training. With the exception of Mentakab, Mengkarak and Triang, all stations on the Pahang line up to and including Padang Tungku and Kuala Pilah branch were in charge of Malay Station Masters. In addition, there were 19 Malay Ticket Collectors and 15 Signalmen compared with 14 and 11, respectively, at the end of 1923. (Ibid.)

The *FMS Annual Railway Report for 1929* contains a segment called 'Special Section on Employment of Malays' and notes that the 'Experiment of staffing, entirely with Malays, the Kuala Selangor branch commenced August 1927, and completed at the end of that year, has been found, so far as the clerical grades are concerned, to be generally successful' (FMS 1930: 30). In the 1931 *FMS Railway Report*, we learn that for the employment of Malays in the FMSR: 'The policy is to engage Malays whenever suitable men are available to fill vacancies and, in reducing staff, to dispense with other nationalities rather than Malays' (FMSR 1932: 28). The report includes a comparative statement about the number of Malays employed in the FMSR: 608 out of a total of 3,572 in 1930 and 557 out of a total of 3,009 in 1931 (ibid.). The *FMS Railways Report for 1932* explicitly states that: 'The policy is to give preference to Malays in both recruitment and retrenchment' (ibid.). However, despite these efforts, reflecting on the value of 'local Malay labour', in 1932, C.D. Ahearne, Controller of Labour, Malaya, expressed all the regnant problematic stereotypes and justifications for their so-called 'unwillingness' to become wage labour:

> This labour is of very little importance. No large estates depend to any great extent on Malays and the total number engaged in any one time on estates in the Federated Malay States is roughly 3,500 persons. The reason why more Malays are not employed as labourers is that they are unwilling to work regularly. They merely use the estate as a convenience to supplement whatever livelihood can be made out of their kampongs and cannot be relied on to remain on the estates when their services are most urgently required. They are, as a rule, not desirous of earning any more money than is sufficient to support them and to provide them with needs of the moment. As is the case with the locally engaged Javanese, and small numbers of Malays supplement regular forces of Indians or Chinese on many estates but the Malays work even less regularly than locally engaged Javanese. (FMS 1932: 19)

Even as late as 1952, the fact that a group of Malay workers had built a section of the railway tracks on the east coast was deemed atypical enough to be reported in a local newspaper, the *Straits Budget*: 'with their bare hands, 1,000 Kelantan Malays have laid a 100-mile railway straight through the heart of the Kelantan jungle into Pahang, a Federation Government spokesman said today'.[3] But despite these concerted efforts, over the decades, the proportion of Malays in railway services remained miniscule compared to the numerical dominance of Indian labourers. Ironically, the easy availability of Indian labour seemed to be a disincentive for recruiting local labour and was often used in subsequent decades to avoid the mechanization of labour processes in railway construction.

There was an overwhelming reliance on imported Indian labour from the outset of railway construction in Malaya, where this constituency was heavily in demand (Jegathesan 1954: 11). Here, the dependence on Indian labour for constructing the transport network was deemed critical, given that 'for want of this labour, road and rail construction was almost at a standstill in 1882' (ibid.: 16). Jegathesan further documented the specific preference for Indians in the railways:

> Indian coolies were preferred 'for all work' on the railways, while a State Engineer stated that they were the 'best metal breakers' for road work. They were specially adapted for road making. A perennial complaint of the planters was the enticing away of their Indian labourers by Government to carry out public works. (1954: 16)

However, by the early decades of the twentieth century, some labour for railway building was recruited locally from across the Malayan Peninsula. Until 1917, Indian labour was only allowed to move within the Indian Empire (Jackson 1961), which explains why Indian labourers did not end up building railways, like Chinese labour, in North America, Australia or New Zealand, but they did work as railway labour in the Caribbean and parts of Africa. Kaur iterates that: 'South Indian Tamils dominated the construction and maintenance sections of the FMS Railways' (2004: 137). Track laying and maintenance work was performed largely by male Tamil labourers who dominated the railway workforce, although the official railway archives do record the presence of women in the railway services. From the twentieth century onwards, the almost total reliance on Indian labour for constructing railways is palpable across British Malaya, including in Singapore, and in the building of the Thai–Burma Railway by the Japanese.

As in other colonies, the engineering expertise for building railways in Malaya was provided by the British. Given the long history of building railways in India, state governments and railway engineers in Malaya turned to India for

expertise and guidance. But from the outset, the materials used were local. Coal for locomotives was obtained from Batu Arang in Selangor in 'sufficient quantity to supply the whole system' (Fisher 1948: 123), while ballast was obtained from 'railway-owned workings, including a granite quarry at Segamat (Johore), and limestone quarries at Ipoh (Perak), Kodiang (Kedah) and Kuala Lipis (Pahang)' (ibid.). Sleepers and coaches were constructed from indigenous hardwoods like merbau and chengal.[4] Kaur documents that initially, railways in Malaya 'relied almost exclusively on firewood for fuel' (1980c: 696). Later, 'coal was imported from India to supply the coaling stations of Penang and Singapore' (ibid.: 696–97). However, 'coaches were also imported from Britain until the establishment of the Central Workshop at Sentul in Kuala Lumpur between 1904 and 1906; even after that time all the metal frames, the locomotives, and the rails were still imported from Great Britain' (ibid.).

And, of course, railway labour was imported from India as well, on the assumption that Indians would have a greater familiarity with the railways, which would be advantageous. Indeed, the British did teach Indians railway-building skills, even if the Indians who arrived in Malaya for labouring work did not necessarily have these skills. Kerr underscores the fact that the British:

> taught Indians those skills particular to railroad construction that were not part of the repertoire of construction practices in pre-railroad South Asia. One chief engineer (CE) reported in 1854 that Indians were learning to lay rails 'under the tuition of Europeans' and that with careful direction and adequate pay they would prove able 'to perform many of those duties for which they are generally considered unfit'. (2006: 37)

In India, Satya notes that 'Britons also held the best jobs as stationmasters of large stations, drivers of express trains and administrators' (2008: 73), reflecting racist and discriminatory colonial attitudes towards labour:

> The British in India distinguished between mental and manual work. Driven by the same racial prejudice, they reserved mental work for themselves and delegated manual labour to Indians. Railways did not become the training ground for skilled personnel for other sectors of the economy. Indians came to be hired as lower-level personnel in such jobs as engine drivers and guards. All management posts continued to be held totally by Britons. (Ibid.: 73)

The generic stereotypes associated with Indian immigrants noted earlier were believed to render them perfect labour material and made them popular with potential employers in British Malaya. This was certainly the case with the

FMSR, where Indians were employed in large numbers and dominated the workforce, even though the majority of them did not have any relevant experience or training. Within the large and diverse *Indian* category (which included the Ceylonese), subethnic groups performed specific tasks in the railways, which mapped onto their socioeconomic and educational backgrounds. As Kaur stresses:

> The stationmasters were invariably Jaffna Tamils and North Indians; while drivers, signalmen, pointsmen and conductors were South Indians or Jaffna Tamils. Jaffna Tamils formed a large segment of the educated workforce that had migrated to Malaya, particularly in the first quarter of the twentieth century. Technical staff (surveyors, draughtsmen) and artisans comprised Chinese, South Indians and Jaffna Tamils. The clerical section was monopolised by Jaffna Tamils and Malayalis from Kerala in India. North Indians, especially Sikhs, dominated the railway police department or security services division. (2004: 136)

Typically, Indian immigrants dominated the workforce of the railways. Indian labour was recruited directly from India and Ceylon, while the Chinese came through the contractor system. Kaur observes that: 'By 1922, there was a decline in the number of workers because by that date the major lines had been completed and increasing road-rail competition resulted in staff reductions' (ibid.).

Despite this, the high proportion of Indians vis-à-vis other ethnic groups in the railway services persisted well into the 1950s. Sandhu emphasized that:

> Indians have played a prominent, often dominant, role in almost every phase of development of Malaya's modern transport and communication system, particularly the rail, road and telecommunication networks. In these, not only have they been the principal labourers, but also, together with Ceylon Tamils, [they] have formed the bulk of the clerical, administrative and technical staff. (1967: 120)

Table 2.1. FMS Railway workers by ethnic group, 1903 and 1922 (Kaur 2004: 136).

Year	Indian	Chinese	Malay	Eurasian
1903	5,819	1,078	278	n/a
1922	2,058	288	107	50

Source: 1903 – *Hindu Organ*, 30 December 1903; 1922 – *Selangor State Secretariat* File No. 3103/1922

Table 2.2. FMS Railway staff by ethnic group, 1932, 1939 and 1946 (Kaur 2004: 139). © Amarjit Kaur, used with permission

Department	**Europeans**			**Eurasians**			**Indians and Ceylonese**			**Chinese**			**Malays**		
	1932	1939	1946	1932	1939	1946	1932	1939	1946	1932	1939	1946	1932	1939	1946
Management (including administration)	6	4	6	-	-	3	25	15	13	6	3	6	7	6	11
Engineering	39	20	21	12	10	14	4,719	4,444	4,286	186	80	270	365	385	578
Mechanical	22	17	17	29	35	1229	1,073	1215	455	501	450	450	195	295	473
Transportation	52	36	37	84	145	184	3,803	3,469	3,359	398	378	344	693	1,024	1,293
Accounts	12	9	6	3	8	10	91	85	91	33	31	37	42	47	52
Stores	6	4	4	2	2	-	133	94	131	1	2	6	71	47	41
Police	3	-	-	2	1	1	250	12	11	5	4	7	157	5	3
Health	1	-	-	-	-	-	92	100	147	2	2	1	2	3	10
Total	141	90	91	120	195	247	10,342	9,292	9,253	1,086	1,001	1,121	1,532	1,812	2,461

Source: Annual Reports, FMS Railways, 1932, 1939, 1946

In 1931, the total FMSR labour force was 15,611, of which 12,311 were Indian, 1,472 were Malay and 1,613 were Chinese, with 163 Eurasians and 178 Europeans (FMSR 1932: 35). Of these, 4,114 Indians and 668 Malays were in the traffic department, 4,814 Indians and 287 Malays were in the engineering department, 1,545 Indians and 154 Malays were in locomotive department, and 499 Indians and 46 Malays were in construction. In 1929, the FMSR employed 25,000 workers, but by 1932, the size of the workforce was reduced to 12,000, as the railway network was not further expanded. The Great Depression in the 1930s negatively affected railway revenues and led to staff retrenchments. There were different grades of employees in the FMSR, who worked in various departments of the railways – Construction, Permanent Way and Works, Traffic, Locomotive, Signalling etc. The vast majority of South Indians were employed as menial labour or railway servants and were at the bottom of the barrel, were most poorly paid, and received daily wages and limited benefits.

In the early days, railway staff were provided with basic, rudimentary guidance as they engaged in manual labour tasks in harsh and risk-laden contexts. However, railway operation and maintenance over time required more dedicated engineering knowledge. In some instances, even this was learnt on the job (confirmed in my interviews with former railway staff), but ultimately, structured instruction was provided through training courses to specific technical professions in the eventual professionalization of the railway services. Kaur's research on the railway landscape in colonial Malaya maps the logic and pattern of the railway workforce which:

> was characterised by a three-tier occupational structure based on task and job classification: the managerial elite; the subordinate technical and clerical staff; and the railway workers. The managerial elite, which comprised mainly European staff, was paid on a monthly basis. The subordinate technical and clerical staff, comprising mainly Jaffna Tamils, was also paid on a monthly basis. Together, these two groups ran the FMS Railways. The last stratum comprised skilled workers, semi-skilled workers and unskilled labourers. The skilled workers were predominantly Chinese who were employed as mechanics, fitters, sheet-metal workers, polishers, welders, blacksmiths and electricians. The semi-skilled workers, mainly Indians, were plate-layers, signalmen, lamp men and pointsmen. The labourers, who were predominantly South Indians, maintained the railway tracks. This third group of railway employees was paid on a daily basis, and housed in accommodation which ranged from labour lines alongside railway tracks and compound accommodation in the vicinity of the workshops. (Kaur 2004: 152)

Railway workshops and depots were built around major stations and junctions (Singh 1985), which were also absorbed into the FMSR when it consolidated the existing railway lines. As Kaur recounts: 'The consolidation of the different state railways necessitated the establishment of central workshops and the employment of a "permanent", large labour force' (2004: 135). The largest of the centralized workshops, which was in Sentul (see Figure 2.2), employed 5,000 workers (Sim 1959). Here, amongst other tasks, railroad cars were built, railway parts were manufactured and maintenance was performed on traction units.

While some educated Indians and large numbers of Ceylonese were employed in clerical, administrative and supervisory positions, a large number of South Indians were employed in the Permanent Way and Works Department of the railways. Given the strong numerical presence of Ceylon Tamils in the railway services, the railway system was popularly known as the Jaffna Railways. The railways were also referred to by railway staff as '*Sothi* Express' (Reeves 2013: 82) and '*Murungakkai*[5] Mail' (ibid.: 83), named after food items that were carried on the trains and were popular with Ceylon Tamils. As a measure of their prominence in the railways, it has been noted that: 'Before 1940, almost

Figure 2.2. Railway workshop, 1880s–1890s. © Colonial Office, Commonwealth and Foreign and Commonwealth Offices, Empire Marketing Board, and related bodies. Courtesy of the National Archives, United Kingdom, used with permission

every station-master was invariably a Jaffnese, and many more were stationed in remote parts of the country to man the substations' (ibid.: 82). They were also visible as postal clerks, signalmen, guards and ticket collectors (ibid.: 82–83).

In comparison to the ethnic profile in the FMSR, gender differentiation among railway labourers has received negligible attention in the scholarship. However, Sandhu does record the significant presence of Indian women as agricultural labour in Malaya, 'women have generally formed between 30–45 per cent of the total Indian labour force and more than 80 per cent of them have been employed in agriculture since the early years of the present century' (1967: 107). He clarifies that 'outside of the plantation sector of the Malayan economy the activity rate of Indian females is very low, on the whole, less than 20 per cent compared with the more than 30 per cent for the Chinese' (ibid.). This is certainly borne out by the data from the railway services, where women had a numerically small presence, although the percentage of women railway workers grew between 1921 and 1947, as seen in Table 2.3.

In an important piece, Kaur (2004: 138) cites the growing presence of Indian women workers in the railways and details the nature of the work they performed:

> Railway workers in the lower grades (especially maintenance) were invariably Indian males, but increasingly, women were employed in these categories from the second and third decades of the twentieth century. These women, often spouses of Indian male labourers, worked as railway servants. In 1921, there were 80 women workers (compared to 7,929 men). In 1931, the figure rose to 178 women workers (compared to 7,083 men) and 244 women in 1947 (compared to 5,111 men). These figures do not include women employed as administrative personnel and in other clerical/skilled categories. (Kaur 1990b: 106)

Kaur's acknowledgement of women workers in the FMSR workforce is rare, as women labourers have remained invisible as a critical labour constituency in the conventional male-dominated historiography of Malayan labour migration.

Table 2.3. Indian railway workers by gender, 1921–1947 (Kaur 1990: 106).

	1921		**1931**		**1947**	
	Total	%	Total	%	Total	%
Males	7,929	99	7,083	97.5	5,111	95.5
Females	80	1	178	2.5	244	4.5

Source: Compiled from Great Britain (1922, 1932, 1949)

This is despite women being *present* as labour in archival records. For example, according to W.A. Taylor, Resident-General of the FMS, in 1905: 'The total number of coolies recruited by *kanganies* for employment on estates and introduced into these states in the year 1905 was 7,543, of whom about 19 per cent were females' (FMS 1906).

Through the earliest years of the twentieth century, the *FMS Railway Reports* too record women's presence in the railways as labour in specific departments and report that they were paid less than male workers – a broad pattern in Malaya. As Sandhu notes: 'About three-quarters of the Indian female workers have been on plantations where wages have been generally low' (1967: 107). In 1931, it was reported that women were employed in the Permanent Way and Works Department of the FMSR in the states of Perak, Selangor and Negeri Sembilan, and were paid 40 cents a day, compared to the 50 cents a day that their male counterparts were paid (FMS 1932: 36). Women were also employed in the Construction Department of the railways in Singapore, notably in Kelantan, where they were paid slightly more – 46 cents a day as compared to 58 cents for the male workers (ibid.). Indian women's presence as labour, either in the various railway services or as estate labour, has not been either adequately acknowledged or theorized. Even if their presence has been noted in the records, it appears only in passing.

During my fieldwork in Malaysia, my conversations with former railway labourers and *mandore*s led me to the idea of *railway families* as my interlocutors narrated their biographies and family histories. In case after case, I heard that entire families had worked in the railways, including the female members of the household and children – a pattern I encountered consistently in the field. My male interlocutors spoke of grandmothers, mothers, sisters, aunts and wives who had worked in the railways as cleaners of coaches, stations and tracks; as gardeners cutting grass, removing weeds, trimming bushes in railway precincts and, especially, keeping rail tracks and the surrounding areas free of vegetation; and in the railway canteen, cooking, cleaning, serving and washing dishes, and in rare instances in clerical services. In an early piece, Sandhu notes that 'it has been normal for almost all working age members, including females, of families to work' (1967: 107).

However, in my fieldwork, I encountered only seven female interlocutors who were active as custodians of 'railwaymen temples'. The first of my women interlocutors was Vani, who I had met during my 2017 trip to Paloh Station. She was in her seventies and had considerable knowledge about the hundred-year-old Am'maṉ temple that used to be sited right on the platform. When we met, she pointed out the physical traces of the temple's past that were still visible on the station. She shared that she had been associated with the temple for twenty-two years. The temple was demolished in 2003 and moved to an alternate site in the

centre of the town, where a new temple was consecrated in December 2015. Vani told me that although the temple had been relocated, she still returned to the old site, as she felt the deity was 'still here'. She was extremely generous and took me to meet Menon, a leader of Paloh's Indian community. This introduction was instrumental in accessing further historical details of the famous goddess temple in Paloh.

Similarly, 55-year-old Kamala – the wife of the chairman of the Sri Mahamariamman Peycheeamman Temple in Serendah – was critical for my research as she generously shared the temple's history when I met her in 2017. She described her connectedness to the railways by saying that she came from a 'railway family', sharing that her grandfather was involved in maintaining the tracks, while her father was a jeep driver in the railways, her brother worked on track maintenance and an uncle on her mother's side was a station master. She was proud to note that her grandfather had looked after the eighty-year-old temple, which she recalled used to be located along the old railway tracks, near the old Serendah Station. It was moved to its present location near the new station in 2001, where it thrives with the support of a community of devotees.

In 2017, I also interviewed Vasanti – a teacher in her forties – one of the most charismatic and determined individuals I met during my fieldwork in Kampung India, Mengkibol, where her family had been involved in establishing several 'railwaymen temples'. She had considerable knowledge about the four 'railwaymen temples' in her neighbourhood and had also been embroiled in a long battle with the railway authorities to prevent her *kampong* (Malay, 'village') and temples therein from being demolished. I will share details of the difficult negotiations Vasanti had with the authorities in Chapter 6. Mala – a woman in her thirties – was equally committed to the railwaymen temple that her father Tharman, a *mandore*, had built next to their quarters at the Layang Layang Station. When I visited the temple in 2017, it was literally being demolished and the icons had been moved to a rented premises nearby. Mala, together with her husband, Chandran, negotiated with the KTM authorities and was involved in decision making about what would happen to the temple. Her father – who was in his seventies at the time – had retired recently and was working hard to convince the railway authorities to grant alternative living quarters for his family and his deities. Another of my interlocutors was Priya – a woman in her forties – who was a member of the temple's management committee at the Sri Maha Mariamman Temple, Behrang, and noted with pride that many women were involved in the temple's current leadership. Together with the chairman of the temple, Priya narrated this temple's story, which I will discuss in Chapter 6.

As daughters and granddaughters of male railway labourers and *mandore*s who had founded 'railwaymen temples', the women I spoke to had assumed responsibility for these temples, sustained them enthusiastically and expressed

that they wanted to honour the memories of their ancestors. The women viewed these sacred structures as *family temples* and as part of their inheritance and legacy. In all the cases I have presented, the women continued to live either in the original accommodation occupied by their fathers or grandfathers, or close to the original railway temples they had built. While I mostly met male temple caretakers, managers and time priests, women were very much present in railwaymen temples as visible participants in temple management committees and led key cultural, religious and educational initiatives programmes in the temples.

Despite the fact that women did have a presence in the historical and archival records, the mainstream historiographies of Indian labour migration to Malaya have been largely silent on gender and the scholarship is marked by androcentrism, producing 'female invisibility' (March 1982), rendering them 'missing persons' (McDonald 1994). However, over the last two decades or so, highlighting the role of women labourers and their contributions in the Malayan economy – who have been silenced and marginalized in social science and humanities research – has gained much-needed momentum and traction (Datta 2015, 2016; Jeyathurai 2012; Kaur 2014; Lee 1989; Oorjitham 1987; Pillai 2004), as women's exclusion and the neglect of gender as a unit of analysis in labour and migration studies have been critiqued and acted upon. Datta's book *Fleeting Agencies* (2021) is a pioneering text that documents the presence of 'Tamil coolie women' on Malayan colonial rubber plantations and presents them as socioeconomic and political actors with agency. This recognition has analytical importance for historians of labour migration to Malaya and redresses the erstwhile neglect and invisibility of women's labouring contributions to plantation economies. Datta's foregrounding of Indian women coolies as labourers and their labouring as constitutive of national and transnational histories is also productive.

This chapter has relied on select official archives and secondary historical materials to map a history of the colonial railways in Malaya and the movement of immigrant labour to these regions who, together with resident labour, constructed colonial projects, including the laying of railway networks. The historical data presented here have been interpreted and read through the lens of labour to reveal labouring efforts that typically remain hidden in official narratives. Against this backdrop, Chapter 3 recounts the day-to-day working conditions and labouring lives of railway labourers who were charged with the daily regimen of track maintenance – a key responsibility that kept the trains running smoothly. It details the living conditions of this cluster of railway labour, with an emphasis on their accommodation – the size, scale, type and location of sites they called home. Both these emphases enable me to document the nature and scope of *railway work* undertaken by those deemed underlings in the railways. Finally, these discussions bring into sharp focus comparative narratives about the working and living conditions of British railway navvies presented in Chapter 1.

Notes

1. The British instituted a residential system in Malaya where a British Resident was appointed for each of the Malay states. The authority of the native chief/ruler still held in all matters relating to Islam and Malay custom, but the Resident reigned supreme over matters of general administration, maintenance of law and order, and control over all revenues.
2. This was renamed the Indian Immigration Fund in 1912 and the South Indian Labour Fund in 1958. The recruitment of labour was also commodified with a different business model: the cost of passage was jointly borne by employers and the government, compared to an earlier arrangement in which the cost was covered by migrants themselves.
3. 'Pioneers Conquer Malayan Jungle', *Straits Budget*, 20 November 1952, 14.
4. The scientific name of merbau is *Intsia bijuga*, also known as kwila wood. It is a hard wood found primarily in Southeast Asia. Chengal is a durable timber from *Neobalanocarpus heimii*, a tropical hardwood tree that is native to Malaysia.
5. A vegetable from the horseradish or drumstick tree that is native to tropical Asia and popular as a food item across South Asia. Its scientific name is *Moringa oleifera* and it is known in Tamil as 'muruṅkai' and in Hindi as 'sahjan'. It is also recognized as having considerable nutritional value and healing properties.

References

Alias, Umairah. 2015. 'British India Influence on FMS (Federated Malay State) Railway Stations'. Retrieved 18 January 2023 from https://www.slideshare.net/umairahalias/british-india-influence-to-fmsfaderated-malay-states-railway-stations.

Allen, Richard B. 2008. 'Capital, Illegal Slaves, Indentured Labourers and the Creation of a Sugar Plantation Economy in Mauritius, 1810–60', *Journal of Imperial and Commonwealth History* 36(2): 151–70.

Arasaratnam, Sinnappah. 1979. *Indians in Malaysia and Singapore*, revised edn. Kuala Lumpur: Oxford University Press.

Babulal, Bipin, and Khairi Ariffin. 2019. 'The Role of Public Work Department on the Network System in Perak during British Colonial Era, 1874–1941', *International Journal of Modern Trends in Social Sciences* 2(8): 141–48.

Bogart, Dan, and Latika Chaudhary. 2013. 'Engines of Growth: The Productivity Advance of Indian Railways, 1874–1912', *Journal of Economic History* 73(2): 339–70.

Chai, Hon-Chan. 1967. *The Development of British Malaya 1896–1909*, 2nd edn. Kuala Lumpur: Oxford University Press.

Chong-Yah, Lim. 1967. *Economic Development of Modern Malaya.* Kuala Lumpur: Oxford University Press.

Datta, Arunima. 2015. 'Social Memory and Indian Women from Malaya and Singapore in the Rani of Jhansi Regiment', *Journal of the Malaysian Branch of the Royal Asiatic Society* 88(2): 77–104.

_____. 2016. '"Immorality", Nationalism and the Colonial State in British Malaya: Indian "Coolie" Women's Intimate Lives as Ideological Battleground', *Women's History Review* 25(4): 584–601.

_____. 2021. *Fleeting Agencies: A Social History of Indian Coolie Women in British Malaya.* Cambridge: Cambridge University Press.

Dharmalingam, Vanaja. 1996. 'The British and the Muslim Religious Endowments in Colonial Malaya', master's thesis. Singapore: National University of Singapore.

Drake, Peter Joseph. 1979. 'The Economic Development of British Malaya to 1914: An Essay in Historiography with Some Questions for Historians', *Journal of Southeast Asian Studies* 10(2): 262–90.

Federated Malay States (FMS). 1897. *Report by Resident General of Federated Malay States for 1896*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1898. *Report by Resident General of Federated Malay States for 1897*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1900. *Report by Resident General of Federated Malay States for 1899*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1911. *Annual Report of Negri Sembilan for 1910*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1904. *Annual Report of the Federated Malay States for 1903*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1906. *Annual Report of the Federated Malay States for 1905*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1910. *Annual Report of the Federated Malay States for 1909*. Kuala Lumpur: Selangor Government Printing Office.

_____. 1932. *Report on the Working of the Labour Department for 1931.* Kuala Lumpur: Selangor Government Printing Office.

Federated Malay States Railways. 1923. *Annual Report for the Year 1922*. Kuala Lumpur: Government Printing Office

_____. 1924. *Annual Report for the Year 1923*. Kuala Lumpur: Government Printing Office.

_____. 1925. *Annual Report for the Year 1924*. Kuala Lumpur: Government Printing Office.

_____. 1932. *Annual Report for the Year 1931*. Kuala Lumpur: Government Printing Office.

_____. 1935. *Fifty Years of Railways in Malaya, 1885–1935*. Kuala Lumpur: F.M.S., Kyler, Palmer & Co., Ltd.

Federation of Malaya. 1949. *Annual Report of the Department of Social Welfare for 1948*. Kuala Lumpur: Government Printing Office.

Fisher, Charles. 1948. 'The Railway Geography of British Malaya', *Scottish Geographical Magazine* 64(3): 123–36.

Francis, Ric, and Colin Ganley. 2006. *Penang Trams, Trolleybuses and Railways: Municipal Transport History, 1880s–1963.* Singapore: Singapore University Press.

Hagan, James, and Andrew Wells. 2005. 'The British and Rubber in Malaya, c 1890–1940', in Greg Patmore, John Shields and Nikola Balnave (eds), *The Past Is Before Us: Proceedings of the Ninth National Labour History Conference*. Sydney: Australian Society for the Study of Labour History and the Business and Labour History Group, pp. 143–50.

Headrick, Daniel R. 1988. *The Tentacles of Progress*: *Technology Transfer in the Age of Imperialism, 1850–1940.* New York: Oxford University Press.

Jackson, Ashley. 2013. *Buildings of Empire*. Oxford: Oxford University Press.

Jackson, Robert Nicholas. 1961. *Immigrant Labour and the Development of Malaya, 1786–1920: A Historical Monograph*. Kuala Lumpur: Government Press.

Jegathesann N. 1954. 'Immigration of Indian Labour into Malaya, 1867–1916', unpublished Honours thesis. Kuala Lumpur: Department of History, University of Malaya.

Jeyathurai, Dashini. 2012. 'Labouring Bodies, Labouring Histories: The Malaysian-Indian Estate Girl', *Journal of Commonwealth Literature* 47(3): 303–23.

Kandiah, Arumugam. 1985. 'Reminiscences of Malayan Railway over Half a Century 1935–1985', in Haji Shamsuddin (ed.), *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah, pp. 81–95.

Kaur, Amarjit. 1978. 'Railways, Roads and Communications: Their Contribution to Asymmetrical Economic Development in Malaya, 1870s–1940s', Ph.D. thesis. New York: Columbia University.

_____. 1980a. 'A Note on the Johore Wooden Railroad', *Malaysia in History* 23: 110–12.

_____. 1980b. 'Road or Rail? Competition in Colonial Malaya 1909–1940', *Journal of the Malaysian Branch, Royal Asiatic Society* 23(2): 45–66.

_____. 1980c. 'The Impact of Railroads on the Malayan Economy 1874–1941', *Journal of Asian Studies* 39(4): 693–710.

_____. 1981. 'The Muar Railroad 1890–1921', *Journal of the South Seas Society* 36: 69–78.

_____. 1982. 'Railroads in Malaya 1941–1957: The Japanese Interregnum, the Return of the British and Railroad Reconstruction', *Malaysia in History* 25: 88–104.

_____. 1985. *Bridge and Barrier: Transport and Communications in Colonial Malaya, 1870-1957.* Singapore: Oxford University Press.

_____. 1990. 'Working on the Railway: Indian Workers in Malaya 1880–1957', in Peter J. Rimmer and Lisa M. Allen (eds), *Pullers, Planters, Plantation Workers: The Underside of Malaysian History.* Singapore: Singapore University Press, pp. 99–127.

_____. 2004. *Wage Labour in Southeast Asia since 1840: Globalisation, the International Division of Labour and Labour Transformations*. New York: Palgrave Macmillan.

_____. 2014. 'Plantation Systems, Labour Regimes and the State in Malaysia, 1900–2012', *Journal of Agrarian Change* 14(2): 190–213.

King, Anthony. W. 1939. 'Plantation and Agriculture in Malaya, with Notes on the Trade of Singapore', *Geographical Journal* 93(2): 136–48.

Kerr, Ian J. 2006. *Engines of Change: The Railroads That Made India*. Westport, CT: Praeger.

Koh, T., et al. (eds). 2006. *Singapore: The Encyclopaedia*. Singapore: Editions Didier Millet in association with the National Heritage Board.

Kondapi, C. 1951. *Indians Overseas, 1838–1949.* New Delhi: Indian Council of World Affairs.

Kratoska, Paul H. 1982. 'Rice Cultivation and the Ethnic Division of Labour in British Malaya', *Comparative Studies in Society and History* 24(2): 280–314.

_____. (ed.). 2006. *The Thailand-Burma Railway, 1942–1946: Documents and Selected Writings*, vol. 1. London: Routledge.

Lee, Sharon M. 1989. 'Female Immigrants and Labour in Colonial Malaya: 1860–1947', *International Migration Review* 23(2): 309–31.

Leinbach, Thomas. 1975. 'Transportation and the Development of Malaya', *Annals of the Association of American Geographers* 65(2): 270–82.

Lim, Heng Kow. 1978. *The Evolution of the Urban System in Malaya*. Kuala Lumpur: Penerbit Universiti Malaya.

Lo, W.F. 1957. 'The Transfer of the Straits Settlements from the Indian Office to the Colonial Office in 1867', Honours Level thesis. Kuala Lumpur: Department of History, University of Malaya.

Looi, Wun Kion. 1995. 'The Straits Settlements Government: A Study of the Straits Settlements Executive Council (1867–1941)', Honours Level thesis. Kuala Lumpur: Department of History, National University of Singapore.

Mahajani, Usha. 1960. *Asia: The Role of Indian Minorities in Burma and Malaya*. Bombay: Vora & Co.

Malayan Union. 1947. *Railways Report for the Period 1st April to 31st December 1946*. Kuala Lumpur: Malayan Union Government Press, H.T. Ross, Government Printer.

Mani, A. 1977. 'The Changing Caste-Structure amongst the Singapore Indians', Master's thesis. Singapore: National University of Singapore.

March, Artemis. 1982. 'Female Invisibility in Androcentric Sociological Theory', *Insurgent Sociologist* 11(2): 99–107.

McDonald, Lynn. 1994. *The Women Founders of the Social Sciences.* Ottawa: Carleton University Press.

McNicol, Steve. 1985. *Kuala Lumpur & Singapore: A Railway Pictorial*. Elizabeth Downs: Railmac Publications.

Narayanan, Sugumaran. 2018. 'The Forgotten and Twisted Conflict History of the Siam-Burma Death Railway', *International Journal of Culture and History* 4(3): 59–63.

Oorjitham, Susan K.S. 1987. 'Problems of Women Workers in the Plantation Sector in Peninsular Malaysia', *Ilmu Masyarakat* July–September: 46–52.

Pillai, Shanthini. 2004. 'In Gendered Chambers: The Figure of the Indian Immigrant Woman of Colonial Malaya', *Hecate* 30(1): 141–59.

Rai, Rajesh. 2004. 'Sepoys, Convicts and the "Bazaar" Contingent: The Emergence and Exclusion of "Hindustani" Pioneers at the Singapore Frontier'. *Journal of Southeast Asian Studies* 35(1): 1–19.

Reeves, Peter (ed.). 2013. *The Encyclopedia of the Sri Lankan Diaspora*. Singapore: Editions Didier Millet.

Rengasamey, Pushpavalli, A., and Sivachandralingam Sundara Raj. 2012. 'The Role of and Development of the Tamil Immigration Fund in Malaya, 1907–1938', *Journal of the Faculty of Arts and Social Sciences, University of Malaya* 27(2): 38–49.

Roy, Tirthankar. 2018. *A Business History of India: Enterprise and the Emergence of Capitalism from 1700*. Cambridge: Cambridge University Press.

_____. 2019. *How British Rule Changed India's Economy: The Paradox of the Raj*. Cham: Palgrave Pivot.

Sadka, Emily. 1968. *The Protected Malay States, 1874–1895*. Kuala Lumpur: University of Malaya Press.

Sandhu, Kernial Singh. 1962. 'Some Preliminary Observations of the Origins and Characteristics of Indian Migration to Malaya, 1786–1957', in Kennedy Gordon Tregonning (ed.), *Papers on Malayan History*: papers submitted to the First International Conference of South-East Asian Historians, Singapore, January 1961. Singapore: Journal of Southeast Asian History, pp 40–72.

_____. 1967. 'Indians in the Modern Malayan Economy', *India Quarterly* 23(2): 106–26.

Sanders, J.O. 1947. *Railways Report for the Period 1st April to 31st December, 1946*. Kuala Lumpur: Malayan Union Government Press.

Satya, Laxman D. 2008. 'British Imperial Railways in Nineteenth Century South Asia', *Economic and Political Weekly* 43(47): 69–77.

Selvaratnam, T. 1985a. 'Johore Wooden Railway of the Nineteenth Century', in Haji Shamsuddin (ed.), *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah, pp. 59–65.

_____. 1985b. 'Staff Welfare and Recreation in the Two Decades of Post-war Malayan Railway', in Haji Shamsuddin (ed.), *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah, pp. 97–111.

Shamsuddin, Haji. 1985. *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah.

Shennan, Margaret. 2001. *Out in the Midday Sun: The British in Malaya 1880–1960*. London: John Murray.

Shirras, G. Findlay. 1931. 'Indian Migration', in Walter F. Wilcox (ed.), *International Migrations, Volume II: Interpretations*. New York: National Bureau of Economic Research, pp. 591–616.

Sidhu, Jagjit Singh. 1965. 'Railways in Selangor 1882–1886', *Journal of the Malaysian Branch of the Royal Asiatic Society* 38(1): 6–22.

Sim, Catherine, 1959. *A Career with the Malayan Railway*. Kuala Lumpur: Pertadbiran Keretapi Tanah Melayu.

Singh, Dalip. 1985. 'The Railway Workshop', in Haji Shamsuddin (ed.), *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah, pp. 121–35.

Smith, Patrick G. 2006. *Malayan Railways: A Brief Introduction*. London: British Overseas Railways Historical Trust.

Stanistreet, J.A. 1974. *Keretapi Tanah Melayu: The Malayan Railway.* Lingfield: Oakwood Press.

Straits Budget. 1952. 'Pioneers Conquer Malayan Jungle', 20 November 1952, p. 14.

The Straits Times, 1932. 'First Train Enters New Station; Bright Future for F.M.S Railway', 3 May 1932, p 5. Retrieved on 22 March 2022 from https://eresources.nlb.gov.sg/main/sphnewspapers.

The Straits Times. 1952. 'Pioneers Conquer Jungle, Building Railway: Doing It with Bare Hands', 16 November. Retrieved on 22 March 2022 from https://eresources.nlb.gov.sg/main/sphnewspapers.

Tan, Bonny. n.d. 'Railway in Singapore', *Singapore Infopedia.* Retrieved 18 January 2023 from https://eresources.nlb.gov.sg/infopedia/articles/SIP_953_2005-01-25.html.

Tarling, Nicholas. 1969. *British Policy in the Malay Peninsula and Archipelago 1824–1871.* Kuala Lumpur: Oxford University Press.

Teo, Eisen. 2019. *Jalan Singapura: 700 Years of Movement in Singapore*. Singapore: Marshall Cavendish.

Tharoor, Shashi. 2017. '"But What about the Railways …?" The Myth of Britain's Gifts to India', *The Guardian*, 8 March.

Tregonning, Kennedy Gordon. 1965. *The British in Malaya: The First Forty Years 1786–1826.* Tucson: University of Arizona Press.

Weber, Max. 2013 [1905]. *The Protestant Ethic and the Spirit of Capitalism*. Edited, translated and with an introduction by Peter Baehr and Gordon C. Wells. New York: Penguin.

Western Star and Roma Advertiser. 1946. 'Burma Siam Railway Sold', *Western Star and Roma Advertiser*, 11 October. Retrieved on 3 March 2022 from https://trove.nla.gov.au/newspaper/page/10351698 (Trove database).

Wijaesuriya, D.E.K. 1985. 'The Origins of Railways in Malaya', in Haji Shamsuddin (ed.), *Malayan Railway, 1885–1985, Locomotive Centennial*. Kuala Lumpur: Hidayah, pp. 31–38.

Wilton-Jones, Malcolm. 2022. 'Singapore Railways'. Retrieved 18 January 2023 from http://searail.malayanrailways.com/Singapore/SRhistory.htm.

York, F.W., and Phillips, A.R. 1996. *Singapore: A History of Its Trams, Trolleybuses & Buses*, *Volume One, 1880s to 1960s.* Croydon: DTS Publishing.