

Contributions to Indian Economic History II

The Income Tax Controversy in India
G. R. G. Hambly

*The Drain of Wealth and Indian Nationalism at the Turn
of the Century*
John McLane

Rate of Public Investment in India, 1898—1938
M. J. T. Thavaraj

Agricultural Wages in the 19th Century in Madras
Dharma Kumar

Early Nineteenth Century Village Records in Gujarat
A. M. Shah, R. G. Shroff and A. R. Shah

The Spread of Agriculture in the Ganges Valley
Dev Raj Chanana

Origin and Growth of the Tea Industry in Assam
Sunil K. Sharma

330.954
R.211.2C-R
211.2 C

Edited by Tapan Raychaudhuri

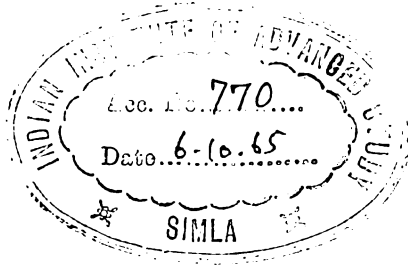
Our editor, Dr. Tapan Raychaudhuri, is one of the best-known figures among the rising generation of Asian historians. His pioneer work on the socio-economic history of Mughal Bengal (*Bengal under Akbar and Jahangir*) was described in the *English Historical Review* as having done for Bengal what Moreland's volumes did for India. His study of the Dutch commercial activities in the 17th century India, based on the Dutch archives, which awaits publication, is another path-breaking effort in the field of Indian economic history. A brilliant product of the universities of Calcutta and Oxford, Dr. Raychaudhuri was formerly the Deputy Director, National Archives of India. As the Reader in Economic History, University of Delhi, he is now in charge of the only organised research unit in India working exclusively on economic history.

CONTRIBUTIONS TO INDIAN ECONOMIC HISTORY
II

© 1st Edition 1963

**FIRMA K. L. MUKHOPADHYAY
PUBLISHERS**

6/1A, Bencharam Akur Lane, Calcutta 12, India.



1st Edition 1963

Price Rs. 8.00

330.954

R211.2



Library IAS, Shimla



00000770

211

**Printed by P. C. Chatterjee at the Thacker's Press & Directories Ltd.,
6B, Bentinck Street, Calcutta-1.**

CONTRIBUTIONS TO
INDIAN ECONOMIC HISTORY II

Edited By
TAPAN RAYCHAUDHURI



FIRMA K. L. MUKHOPADHYAY
CALCUTTA • 1963

The first number of the *Contributions to Indian Economic History* was published more than two years back. It was then hoped that other numbers of this occasional publication would follow at fairly regular intervals and the present volume was accordingly sent to the press in 1961. Its publication has, however, been long delayed through unforeseen circumstances.

The *Contributions to Indian Economic History* was brought out to meet a long-felt necessity, viz., to keep track of developments in this field of study and provide a regular outlet for the growing volume of research on the subject. Since then it has been possible to bring out a regular quarterly journal,—*The Indian Economic and Social History Review*,—edited by a committee including historians, economists and sociologists. A periodical publication based on an inter-disciplinary approach is, of course, a more suitable medium than an occasional publication edited by an individual for the tasks which the *Contributions* had in view. Subsequent numbers of the present publication may, however, be brought out from time to time to supplement the work of the quarterly.

Delhi School of Economics,
Delhi, October 1, 1963.

TAPAN RAYCHAUDHURI

CONTENTS

	PAGE
The Income Tax Controversy in India By G. R. G. HAMBLY	1
The Drain of Wealth and Indian Nationalism at the turn of the Century By JOHN MCLANE	21
Rate of Public Investment in India 1898-1938 By M. J. T. THAVARAJ	41
Agricultural Wages in the 19th Century in Madras By DHARMA KUMAR	63
Early Nineteenth Century Village Records in Gujarat By A. M. SAHA, R. G. SHROFF and A. R. SHAH	89
The Spread of Agriculture in the Ganges Valley By DEV RAJ CHANANA	101
Origin and Growth of the Tea Industry in Assam By SUNIL K. SHARMA	119

THE INCOME TAX CONTROVERSY IN INDIA, 1869 TO 1873

G. R. G. Hambly

The attempt to introduce a moderate Income Tax and its eventual abolition constitute an important episode in the financial history of 19th century India. The present paper,—a detailed analysis of this episode,—highlights some of the decisive influences in the formation of the economic policies of the British Indian government.

From 1869 to 1873 the Indian Government included a moderate Income Tax in its taxation structure as an essential contribution to financial stability. The bitter opposition which this measure aroused in Indians, non-official Europeans, and in most members of the I.C.S. led the Government to withdraw it, although India had already experienced an Income Tax from 1860 to 1865. Of the 1869-73 experiment, which centred round the personality of the Finance Minister, Sir Richard Temple, the historian of Indian Income Tax, J. P. Niyogi, correctly observed that "On the whole the income tax of 1869-73 was a success from the financial and administrative standpoints. The Government made an intelligent and fairly successful effort to make income tax a more important constituent element in the tax system of the country than it had been in the past... Its abolition, carried out in the teeth of the opposition of an experienced and able Finance Minister, was a serious blunder".¹

This episode in Indian financial history throws interesting light upon the character of Indian government during the post-1857 period and illustrates the part played by diverse administrative traditions, influential personalities, and various pressure-groups in determining policy.

On the 25th April 1868 Richard Temple took his seat in Council as Finance Member. Since his arrival in India in 1847 his career had been an uninterrupted triumph. As the favourite pupil of John Lawrence and as the author of the first Punjab Administration Reports, which had earned the praise of Dalhousie, he had risen swiftly in the Punjab official hierarchy.

¹ J. P. Niyogi. *The Evolution of the Indian Income Tax*, London, 1929, p. 77.

From 1860 to 1862 he acted as Personal Assistant to the first two Indian Finance Ministers, Wilson and Laing. From 1862 to 1867 he administered the Central Provinces before being appointed Resident at Hyderabad by Lawrence and then, shortly afterwards, Foreign Secretary. His reputation as an administrator had attracted the notice of the Secretary of State, Sir Stafford Northcote, who had not been altogether satisfied with the record of Finance Ministers sent to India from England and who offered him the appointment.²

His acceptance of the post delighted the Governor-General.³ Lawrence and Temple had been moulded in the same Evangelical milieu. They were both enthusiastic advocates of rapid economic development and deeply admired the Indian career of Dalhousie. Firm paternalists, they combined sympathy for the agricultural classes with suspicion of landlords and the traditional 'gentry' classes and contempt for the urban professional and commercial groups. In all this they expressed that facet of the 'Punjab Tradition' which was so heavily assailed in India after 1857. Though Lawrence left India within twelve months of Temple's appointment as Finance Member, the new Governor-General, the Earl of Mayo, maintained the character of Lawrence's government. The continuity of policy was reflected in Mayo's preoccupation with finance and the Public Works Department and in his concern for the welfare of the ryot, unexpected in an Irish landlord.

The period which succeeded the demise of the East India Company was one of chronic financial instability.⁴ Mayo came

² S. Northcote to R. Temple, 25 January 1868, F. 86, 83, the Temple Collection, India Office Library, London.

³ J. Lawrence to S. Northcote, 29 February and 4 June 1868, John Lawrence Collection (copies of letters to Secretary of State), India Office Library, London.

⁴ The following Actuals are printed in the Government of India's Annual Financial Statements of the Official Years 1860-61—1873-74, Calcutta, 1873.

1860-61. Deficit, including railways	£5,868,718.
1861-62. Deficit, including railways	£50,628.
1862-63. Surplus, including railways	£1,827,345.
1863-64. Surplus, including railways	£78,347.
1864-65. Deficit, including extraordinary charges	£193,520.
1865-66. Surplus, including extraordinary charges	£2,800,491.
1866-67. Deficit, including extraordinary charges	£2,517,491.
1867-68. Deficit, excluding extraordinary charges	£1,007,695.
1868-69. Deficit, excluding extraordinary charges	£2,774,030.

to India determined to end the series of deficits which endangered the stability of British rule and Temple urged him to seek one remedy in direct taxation. Though the rate of taxation in India was far below that of the poorest European states,⁵ it was high in relation to India's poverty and her low agricultural productivity. It was also extremely inequitable, since both the Land Revenue (whether classified as rent or taxation) and the Salt duty pressed chiefly upon the cultivating classes. In contrast, the Bengal Zamindars, Government fundholders and the commercial and professional classes were practically exempt. Direct taxation alone could remedy this injustice, and Temple urged the introduction of an Income Tax for reasons of equity as well as financial necessity. This view was shared by his able colleague in Council, John Strachey.⁶

Income Tax had been levied first in India by James Wilson to cover the deficits caused by the cost of the war of 1857. For the financial years 1860-61 and 1861-62 it was levied at 4% on all incomes of Rs. 500 per annum and above, and at 2% on incomes between Rs. 200 and Rs. 500 per annum. For 1862-63 the minimum taxable income was raised to Rs. 500 per annum. For 1863-64 and 1864-65 the rate was reduced to 3%. Though it achieved its purpose it was alleged to have created much discontent throughout the country and many officials, including Sir Charles Trevelyan, Governor of Madras (1859-60), strenuously opposed it.⁷ In 1865, when Trevelyan was Finance Member, it was allowed to expire, though in opposition to the wishes of both Lawrence and Sir Charles Wood.⁸ In 1867-68 Trevelyan's successor, W.N. Massey, imposed a License Tax on trades and professions at 2% on incomes of Rs 200 per annum and above. For 1868-69 this was amended to a Certificate Tax of

⁵ Mayo calculated that the per capita rate of tax in India was 1/10 per annum. By comparison, the rate was 7/9 in Turkey, 12/2 in Russia, 17/0 in Italy, 18/5 in Spain and 19/7 in Austria. See proceedings of the Legislative Council, 1871, Mayo: Speech, 31 March 1871.

⁶ J. Strachey: *India, its Administration and Progress*, 3rd edn., London, 1903, pp. 171-173. Strachey was appointed to the Executive Council in 1868, Lieutenant-Governor of the North-Western Provinces in 1874, and Finance Member in 1876. He left India in 1880.

⁷ Trevelyan's views on Indian Income Tax may be found in Parliamentary Papers, House of Commons, 1873, vol. XII, (354), Third Report from Select Committee on East Indian Finance—Minutes of Evidence, paras. 620, 815, 893-910. Trevelyan's opposition to the tax in Madras is described in J. P. Niyogi: *The Evolution of Indian Income Tax*, pp. 25-30.

⁸ Halifax to R. Temple, 10 March 1870, F. 86.85.

1.6% on incomes of Rs. 500 per annum and above. This was the situation in regard to direct taxation when Temple succeeded Massey.

Temple imposed an Income Tax from 1869 to 1873 in the face of bitter opposition, both official and non-official, until Northbrook compelled him to abandon it, though it was restored permanently in 1886. Niyogi has described the period 1860—1886 as one of trial and error in which the Indian Government sought to adjust the burden of taxation between the landed interests, fundholders, and the commercial and professional classes, but without any guiding principle.⁹ This was undoubtedly true, but the Government's inconsistency stemmed mainly from disagreement among senior officials as to whether direct taxation for India was profitable, practicable or expedient. Experienced administrators offered completely contradictory evidence.¹⁰ Trevelyan, Durand,¹¹ and Grey¹² opposed it on political grounds as likely to cause unrest. Frere believed it to be a financial necessity.¹³ Temple and Strachey considered it to be necessary and expedient. Lawrence prevaricated. In 1873 he appeared before the House of Commons Select Committee on Indian Finance to recommend a permanent Income Tax at a low rate as suitable and necessary for Indian conditions,¹⁴ but as Governor-General he had been unwilling to insist upon its retention when confronted by Trevelyan's hostility to it, though he told the Secretary of State that, "Bad as an Income Tax may be I think on the whole it is better than a License Tax, for it will attack the purses of the rich rather than the poor; and if the rate be low (say 2 per cent.) can readily hurt no one."¹⁵ Certainly the appointment of Temple as Finance Member aroused him to fresh interest in the question, for he was convinced that Temple was the man who could place India's finances upon a firm foundation.¹⁶ Before he finally left India he urged Temple to re-impose

⁹ J. P. Niyogi: *The Evolution of the Indian Income Tax*, p. 3.

¹⁰ P. P., 1873, vol. XII, (354), paras. 1103-1107.

¹¹ Major-General Sir Henry Marion Durand was Military Member of Council, 1865-1870, and Lieutenant-Governor of Punjab, 1870-71.

¹² Sir William Grey was a Member of Council, 1862-67, Lieutenant-Governor of Bengal, 1867-71, and Governor of Jamaica, 1874-77.

¹³ H. Bartle Frere to R. Temple, 5 April 1872, F. 86.85.

¹⁴ P. P., 1873, vol. XII, (354), paras. 4489 and 4494-4502.

¹⁵ J. Lawrence to S. Northcote, 14 May 1867, John Lawrence Collection (copies of letters to Secretary of State).

¹⁶ J. Lawrence to S. Northcote, 16 February 1868, John Lawrence Collection (copies of letters to Secretary of State).

the Income Tax.¹⁷ The advice fell upon receptive ground. As Chief Commissioner of the Central Provinces in 1864 Temple had deplored the prospect of the expiry of the tax in 1865 and had argued that it should be retained permanently at a low rate, so that the machinery for collection would always be available in an emergency.¹⁸ By the autumn of 1868 Lawrence, Temple and Strachey were in agreement that the Certificate Tax should be converted into an Income Tax.¹⁹

Mayo, shocked by the precarious state of Indian finance, was willing to sanction any measure which would remove the threat of deficit.²⁰ Strachey in Council strongly recommended Temple's remedy of an Income Tax.²¹ There was some opposition from the Commander-in-Chief, Sir William Mansfield, and from Durand, but eventually both men accepted it as necessary.²² As a result, Temple's first Budget, for 1869-70 contained a 1% Income Tax on incomes of Rs. 500 per annum and above. Its yield was estimated at approximately £900,000 per annum and affected about 150,000 people. Traders, professional men, and most non-official Europeans were already subject to direct taxation, but landowners and Government fundholders were not. The new Income Tax netted the latter two groups.

The Income Tax passed the Legislative Council as Act IX of 1869. Its public reception was mixed. *The Calcutta Review* praised the Budget for "the straightforwardness and honesty which characterises the whole for it,"²³ but the Zamindars, hitherto exempted from almost all taxation, bitterly resented the Income Tax, and they found some supporters amongst non-official Europeans in the press and in the Legislative Council.²⁴ On the whole, however, the Government's case was one of dire necessity which convinced most impartial observers.

¹⁷ R. Temple: *Men and Events of My Time in India*, pp. 337 and 348-349.

¹⁸ R. Temple to J. Lawrence, 31 December 1864, F. 86.1.

¹⁹ J. Lawrence to J. Strachey, 10 October 1868, John Lawrence Collection (copies of letters to Members of Council), and R. Temple to S. Northcote, 31 October 1868, F. 86-87.

²⁰ Mayo to Argyll, 7 and 16 February 1869, Mayo Papers (letter-books). The Mayo Papers have been deposited in the University Library, Cambridge.

²¹ R. Temple to J. Lawrence, 16 March 1869, F. 86.87.

²² Mayo to H. Bartle Frere, 14 March 1869, Mayo Papers (letter-books), and R. Temple to J. Lawrence, 13 March 1869, F. 86.87.

²³ *The Calcutta Review*, 1869, vol. XLIX, No. XCVII, Sir R. Temple's Budget for 1869-70.

²⁴ Mayo to Argyll, 8 and 9 March 1869, Mayo Papers (letter-books).

The 1% Income Tax aimed at achieving no more than an equilibrium between Government income and expenditure, but Mayo opposed a higher rate.²⁵ He expressed the view quite frankly to Temple that Income Tax should not be levied at a rate higher than was actually required to meet foreseeable deficit. He was as much concerned as Mansfield and Durand that the reimposition of the hated tax should not result in unnecessary unpopularity for the Government and that "the country should be saddled with it quietly..."²⁶ He feared a renewal of the controversy of Canning's time which had led to Trevelyan's recall from Madras, and hence his subsequent annoyance in the summer of 1869 at the errors in the Estimates of the Financial Department, which necessitated a dramatic increase of the Income Tax rate in mid-year. By that time, however, Temple was on furlough in England, and since no Officiating Member of Council was nominated to his place,²⁷ Strachey temporarily supervised the Financial Department. During the period when Temple was exchanging views with the Secretary of State and his Council in England, serious miscalculations were discovered in the Estimates upon which the current Budget had been framed. Strachey denounced the Financial Department for gross negligence and inefficiency.²⁸ It is probable that the Indian Government panicked unduly, but at the time the situation seemed very grave.²⁹ Mayo refused to tolerate a deficit in his first year as Governor-General and Strachey raised the Income Tax from 1% to 2% for the second half of the financial year 1869-70. In view of the unpopularity of direct taxation in India this was a drastic remedy, which even Temple admitted, though he subsequently gave his assent to the increase.³⁰ He returned to India in October 1869 and passed the necessary legislation in the following month, only to find himself an object of ferocious abuse. Both then and later, many people outside the Govern-

²⁵ R. Temple to J. Lawrence, 16 February 1869, and R. Temple to Argyll, 23 February 1869, F. 86.87.

²⁶ R. Temple to Argyll, 23 February, 1869, F. 86.87.

²⁷ This was actually illegal. See J. Strachey to Northbrook, 8 June 1872, Northbrook Collection, C. 144.13, India Office Library, London.

²⁸ J. Strachey to Mayo, 18 May and 20 July 1869, Mayo Papers (letters from Strachey), and Proceedings of the Legislative Council, 1869, J. Strachey: Speech, 19 November 1869, P. 348.

²⁹ Argyll to Gladstone, 10 October 1869, Gladstone Papers, vol. XVI, British Museum, London.

³⁰ *Ibid.* R. Temple: *Men and Events of My Time in India*, pp. 351-352. Proceedings of the Legislative Council, 1869, R. Temple: Speech, 19 November 1869, pp. 321-338.

ment maintained that the emergency had been exaggerated and certainly did not justify increasing the rate of taxation in the middle of the year, and some suggested that Strachey had not been unwilling to strike a blow at the reputation of his absent colleague.³¹

Nevertheless, by March 1870, when Temple was due to present his second Budget, there was no sign that the threat of deficit had passed away. There was a commercial depression, the interest charges on the Government had become very heavy, and the opium revenue was proving an increasingly unstable source of income. Temple recommended a 4% Income Tax, such as Wilson had levied in 1860, but this rate was unacceptable to Mayo, who doubted whether it would even pass the Legislative Council. Instead, Government expenditure was ruthlessly cut and a 3½% Income Tax was introduced which would allow for a small surplus.³² There was some vigorous opposition in the Legislative Council, but Strachey effectively threw his weight into the contest on behalf of the increase, declaring that he had "always maintained the expediency of maintaining the income-tax at a low rate of assessment as a permanent part of our financial system."³³ Mayo felt less confident. He did not like the 1870-71 Budget and hoped that it would be treated by the public as "one of transition."³⁴ He mistrusted Temple's belief that most financial evils could be cured by direct taxation, and he had lost faith in his Finance Minister since the errors of the previous year. On the day the Budget Statement was to be read he told Temple: "I hope it will be distinctly stated that the 6 pie in the Rupee Income Tax is to be taken for one year only, and that the decision of Council in that respect will be shewn on the face of the Bill which must be limited to *one year*."³⁵

He told the Secretary of State that it was "an unsatisfactory Budget"³⁶ and admitted that "the feeling against any Income Tax is very strong amongst all classes".³⁷

³¹ H. Bartle Fiere to R. Temple, 3 December 1869, F. 86.85. and *The Calcutta Review*, 1872, vol. LIV, No. CVII, The Income Tax in India.

³² Mayo to Argyll, 22 March 1870, Mayo Papers (letter-books).

³³ Proceedings of the Legislative Council, 1870, J. Strachey: Speech, 5 April 1870, p. 290.

³⁴ Mayo to Argyll, 20 May 1870, Mayo Papers (letter-books).

³⁵ Mayo to R. Temple, 2 April 1870, Mayo Papers (letter-books).

³⁶ Mayo to Argyll, 6 April 1870, Mayo Papers (letter-books).

³⁷ Mayo to Argyll, 20 April 1870, Mayo Papers (letter-books).

But the agitation and bitterness which followed the retention of the tax for 1870-71 was novel in India, and it aroused the apprehensions of officials throughout the country, though Temple and Strachey remained characteristically impervious to the outcry. When Strachey learnt of public meetings called by Indians in such cities as Allahabad, Ambala, Jubbulpore, Lucknow and Delhi he suspected the connivance of local officials and recommended that such meetings should be discouraged by discreet hints to participants of the Government's displeasure.³⁸ He was probably right in thinking that the Income Tax agitation was tacitly supported by many officials. Throughout 1870, Sir William Muir, the scholarly Lieutenant-Governor of North-Western Provinces, was receiving detailed complaints and warnings from his subordinate district officers that the machinery for Income Tax collection was causing the alienation of the people for the local administration and was breeding extensive unrest.³⁹ These warnings Muir conveyed to Mayo who always respected Muir's opinions which, in this instance, agreed with his own suspicions. Upon Temple fell the blame and Mayo wrote home to request the Secretary of State to replace him by someone in whom the Governor-General could place complete confidence. Argyll, who loyally supported Temple throughout the latter's term of office in council, declined to make a change, believing that the widespread abuse of Temple was unjust.⁴⁰ This firm support from the India Office fully counteracted the dissatisfaction felt by the Governor-General and some of his closest advisers on Temple's policy.

In the meanwhile, that policy began to be justified. The 1870-71 Budget showed signs of producing a surplus of $1\frac{1}{2}$ to 2 millions sterling. The Secretary of State had recently ordered the Government of India to provide a surplus of at least half a million sterling, and Temple was now able to fulfil this behest. At the same time, his position in council became easier. Durand had vacated his seat as Military Member for the Lieutenant-Governorship of the Punjab, and his successor, Norman,

³⁸ J. Strachey to Mayo, 24 July 1870, Mayo Papers (Letters from Strachey).

³⁹ For example, E. G. Jenkinson, Magistrate and Collector, Saharanpur to W. Muir, 24 July 1870, and M. H. Court, Commissioner of Meerut, to W. Muir, 6 July 1870, enclosed in Mayo Papers (letters from Muir).

⁴⁰ Argyll to Mayo, 24 August 1870, Mayo Papers (letters from Secretary of State).

was a less influential opponent. Two allies were gained in the persons of Lord Napier of Magdala, the new Commander-in-Chief, and Barrow Ellis from Bombay, whilst Strachey consistently supported the Income Tax policy.⁴¹

Nevertheless, that policy continued to be challenged by the general public. During the preparation of the 1871-72 Budget, criticism of the Government increased, now reinforced by the argument that, since there was the prospect of a surplus at the end of the financial year 1870-71, retention of the Income Tax for 1871-72 was completely unjustified. Though Temple still wished to see the tax converted into a permanent part of the financial structure, Mayo, perturbed by the scale of opposition to it, curtly informed him : "I care very little as to whether the Income Tax is permanent or not. I think it unsuited to India and consider that Mr. Wilson made a great Mistake in touching it at all."⁴²

But such opinions were reserved for the Council-Chamber. In public he warmly supported Temple, declaring in the Budget Debate in the Legislative Council on 31 March 1871 : "I say of the terms in which my hon'ble friend [Temple] has been assailed, that a great deal of it has been cowardly and almost all of it unjust."⁴³

He reminded his audience that "in eighteen short months, the finances of a mighty empire were rescued from a state of chronic and certain danger,"⁴⁴ and these remarks undoubtedly strengthened Temple's position publicly. For 1871-72 Temple reduced the rate of Income Tax from 3½% to 1%. The minimum assessable income was raised to Rs. 750 per annum. As a result, the number of assessed persons fell from approximately 480,000 to 240,000.⁴⁵ Yet despite this concession, the opposition was so vocal in the Legislative Council that the Government felt compelled to re-enact the tax for one year only, subject to further re-enactment on proof of necessity. It became Act XII of 1871. As a result of the reduction of the rate

⁴¹ R. Temple: *Men and Events of My Time in India*, p. 356. Durand's appointment in the Punjab dated from 1 June 1870. Maj. Gen. H. W. Norman took his seat on 1 June 1870, Gen. Lord Napier of Magdala on 25 May 1870, and H. Ellis on 2 May 1870.

⁴² Mayo to R. Temple, 24 March 1871, Mayo Papers (letter-books).

⁴³ Proceedings of the Legislative Council, 1871, Mayo: Speech, 31 March 1871, p. 443.

⁴⁴ *Ibid.*

⁴⁵ Proceedings of the Legislative Council, 1871, R. Temple: Financial Statement, 9 March 1871, p. 129.

and the remission on smaller incomes the surplus for 1871-72 was expected to be very small. As the months passed, however, the surplus steadily grew until it had swollen to three millions sterling, the largest surplus then known in Indian finance. Consequently, agitation against the tax grew more persistent throughout the autumn and winter of 1871. Some people urged that the tax be remitted altogether for the last quarter of the financial year, but Mayo was unwilling to take this step without Temple's acquiescence, and Temple continued to reiterate his argument that the Income Tax should be retained as a permanent part of the fiscal machinery of the country and as "the anchor of our finance."⁴⁶ Pointing out that since Wilson's time direct taxation had provided fourteen millions sterling, he stressed that these fourteen millions were paid by people who otherwise would have contributed little or nothing to the State. He believed that the present agitation would subside once the machinery for collection became more efficient and now that the lower income-groups had been exempted. As an instrument for taxation in an emergency it would prove invaluable. There the matter rested at the time of Mayo's death, though it was widely believed that Mayo had intended to abolish the tax altogether at the next Budget.⁴⁷

That Mayo, who was a man of great firmness and moral resolution and who was passionately concerned at the financial instability of the Government, should have been so influenced by the agitation against the tax is proof of the strength and persistence of that agitation. The Income Tax was not levied at a high rate. On the contrary, it was a very moderate imposition, affecting only a small minority which decreased numerically annually. Why did it create such resentment?

Income Tax collection necessitated enquiry into private financial details to which Indians were unaccustomed and which they found odious. Those liable to assessment were placed at the mercy of minor officials who used their knowledge and position for extortion and oppression. Furthermore, the tax affected many more people than the Government had intended, for although it had been aimed at the comparatively affluent, the

⁴⁶ R. Temple: *Men and Events of My Time in India*, p. 358.

⁴⁷ Northbrook to R. Temple, 4 April 1873, C. 144.14., and J. Routledge: *English Rule and Native Opinion in India*, London, 1878, pp. 129-130. Temple, apparently, thought otherwise. See R. Temple to his father, 23 February 1879, F. 86.19.

poorer classes suffered indirectly. The merchant passed the burden on to his customer and the Zaminder shifted it on to his ryots. But most of the opposition stemmed from a selfish objection to paying taxes at all. Apart from England, Income Tax was still a novelty at this time, and the Indian traders and professional people, the European merchants and planters, and the Zamindars of Bengal who claimed that their privileges were being infringed, made common complaint in the press and in public meetings that "...a tax intended to fall exclusively upon the middle and upper classes of this country, who comprise less than one-thousandth than part of the whole population is unjust".⁴⁸

As Governor-General, Lawrence had noted that the European community in India was always most unwilling to contribute anything towards the support of the Government, from which they expected help and whose policies they constantly denigrated.⁴⁹ European leadership in opposition to the Income Tax reflected partly selfish dismay at being assessed and partly that post-1857 "aristocratic reaction" among Englishmen which advocated the support of the Indian upper classes for reasons of political security and which bitterly opposed the tenets of the "Punjab Tradition." In the past the European community had urged the Government to increase expenditure, but, faced with the threat of Income Tax, they pressed equally resolutely for retrenchment. Temple was indubitably right to attribute their indignation to selfish considerations, but in the Income Tax agitation—as in the case of European pressure on the Government during the Oudh and Punjab tenancy controversies of 1863—the 'interested' parties procured influential allies to further their cause. The Income Tax agitation coincided with extensive unrest in Northern India. This unrest was reflected in the rumours and panics which affected Indians and Europeans alike in the mofussil ("vague and foolish ideas", as Temple called them⁵⁰), in popular religious excitement and communal tension, in the Wahabi scare and in the Kuka affrays.⁵¹ To all

⁴⁸ This resolution was one of several passed at a mass public meeting of Indians and Europeans in Calcutta Town Hall, 18 April 1870, protesting against the tax. See F. 86, 218.

⁴⁹ J. Lawrence to S. Northcote, 28 March and 14 May 1867, John Lawrence Collection (copies of letters to Secretary of State).

⁵⁰ R. Temple to Mayo, 25 August 1870, Mayo Papers (letters from Temple).

⁵¹ An account of these movements will be found in G. R. G. Hambly: *Unrest in Northern India during the Viceroyalty of Lord Mayo, 1869-72*, in the *Royal Central Asian Journal*, January 1961, Vol. XLVIII, pt. I.

this the Income Tax agitation added a further warning, serving to recall the precarious nature of British rule and how that rule had been engulfed less than fifteen years before. Englishmen who were intent upon placating the feudal chieftain, the landlord and the Indian with an interest in the security of property as pillars of British ascendancy were appalled to observe the discontent which the Income Tax generated among those groups.

Acutely conscious of political considerations, they saw in the tax a threat to the concordat which had been initiated in Canning's time between the British Government and the propertied classes. Led by soldier-statesmen like Durand and Mansfield who had a sentimental propensity for and Indian "aristocracy" and traditional Bengal Whigs like Grey, the great majority of British officials in India were prejudiced against the measure by 1871.

The two sides were irreconcilable, and the controversy seemed to resuscitate the disputes between John and Henry Lawrence in the time of the Punjab Board of Administration. Temple and Strachey believed that financial considerations must be given priority, because without financial solvency the empire would flounder. In so far as they concerned themselves with political considerations, they wished to ease the burden of taxation on the cultivating classes by passing some of the burden on to the shoulders of the rich. Their opponents argued that vital political factors affecting the stability of British rule ought not to be subordinate to the temporary needs of the Financial Department. It was characteristic of the change that had come over the bureaucracy since 1857 that the advocates of direct taxation could muster so few supporters. Among senior officials, Temple and Strachey could rely upon Sir Philip Wodehouse (Governor of Bombay, 1872-77), Sir Henry Davies (Lieutenant-Governor of the Punjab, 1871-77), Lord Napier of Magdala and Barrow Ellis. In the lower echelons of the I.C.S. their policy was, for the most part, detested. Many shared Muir's view that although an Indian Income Tax was excellent in principle its practical effects were disastrous. Probably no official was so well acquainted with life in the North-Western Provinces during this period than was Muir, and when his Government declared the countryside to be on the verge of revolt as a result of the extortion and oppression of the minor officials engaged in collecting the tax, it was a warning not to be dismissed lightly. Muir had been

pressing these views upon the Governor-General throughout the summer of 1870, and similar views were sent up officially from Allahabad to the Supreme Government.⁵² In the Budget Debate in March 1871, these differences among senior administrators were given a seven-hour public airing.⁵³ After Temple had proposed re-enacting the Income Tax, his policy was forcefully attacked by J. F. D. Inglis, Legislative Member of Council and Senior Member of the Board of Revenue for the North-Western Provinces. Inglis remarked that if one man in three hundred paid Income Tax, at least half the remaining two hundred and ninety-nine were subjected to oppressive inquisition and extortion from subordinate officials; that for every man who paid Income Tax, twenty more paid the officials to omit their names from the returns; that for every rupee which entered the Treasury, another entered the purse of a subordinate official; that as a result of the tax there was universal demoralisation and dishonesty.⁵⁴

To these remarks, Strachey, a former Collector of Moradabad, gave an absolute and unqualified denial. Having suggested that Inglis' remarks must have earned him the deserved displeasure of his Local Government, he stated categorically that if any Collector or Commissioner admitted to the existence of such a state of bribery and oppression in his jurisdiction as Inglis had implied, such an officer was clearly unfitted for his position.⁵⁵ Temple, likewise, thought Inglis exaggerated and asked, pertinently, if it was expected that the Government of India should abandon its tasks of improvement and material development through dread of the dishonesty of minor officials.⁵⁶ But Mayo was alarmed that an experienced and senior representative of a Local Government should make such a violent denunciation of a Government measure and enquiries were sent to Muir to discover whether Inglis' opinions were representative or not. The reply was far from reassuring. "The Board of Revenue [of the North-Western Provinces]... sustain generally the imputations made by Mr. Inglis, but state that from the nature of the case

⁵² Parliamentary Papers, House of Commons, 1872, Vol. XLIV, (289), Income Tax Administration, Report of the Board of Revenue, NWP, 1869-70, etc.

⁵³ *The Calcutta Review*, 1871, Vol. LII, No. CIV, The Budget.

⁵⁴ Proceedings of the Legislative Council, 1871, J. F. D. Inglis: Speech, 17 March 1871, pp. 208-211.

⁵⁵ *Ibid.*, J. Strachey: Speech, 17 March 1871, pp. 257-261.

⁵⁶ *Ibid.*, R. Temple: Speech, 17 March 1871, p. 258.

complaints are not preferred, and that the bribery and corruption are consequently not directly susceptible to proof.....

The sentiments of Mr. Inglis are shared more or less by probably three-fourths of the officers in these provinces who have had opportunities for forming an opinion....⁵⁷

Muir opined that corruption prevailed among the Kanungos and Patwaris, but not at the level of Tahsildars. It was encouraged by the constant fluctuation in the rate of assessment from year to year which seemed to indicate to ignorant people "an arbitrary and irresponsible power on the part of the assessor."⁵⁸ As a rebuke to Secretariat methods he warned the Supreme Government that: "It is easy to legislate, but the vast difficulty of communicating even the most simple mandate to a rude and ignorant population of many millions, scattered over so great a surface, so that its meaning shall be promptly and exactly apprehended, is too often lost sight of."⁵⁹

He suggested that the lowest range of incomes for assessment be raised so that people whose incomes were liable for investigation could be assessed by the Collector and his superior subordinates only. "...His Honor may say without any hesitation, that, in the course of a long service in India, he has never witnessed anything approaching the popular discontent created by the income tax during the last two years."⁶⁰

In Bengal, Grey, who considered the tax politically dangerous, echoed these sentiments. "I believe that there has never been before in Bengal such widespread discontent as there is now. Alarm and distrust pervade the people high and low, what with the Income Tax which already oppresses them and the further taxation for all kinds of purposes with which they are threatened. Even in Bengal, I fear the Government will some day be forced to acknowledge that the patience of the people may be tried too far..."⁶¹

He also maintained that the tax was financially unnecessary. He suspected that the Financial Department was excessively cautious in framing its Estimates on the assumption of certain

⁵⁷ P. P., 1872, vol. XLIV, (289), Income Tax Administration, C. A. Elliot, Officiating Secretary to Government of India, Financial Department, 3 July 1871.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

⁶¹ W. Grey to J. Strachey, 10 August 1870, enclosed in J. Strachey to Mayo, 10 August 1870, Mayo Papers (letters from Strachey).

deficit.⁶² His successor, George Campbell, with his Punjab training and his radical ideas on India Government, approved of direct taxation in principle and was an enthusiast for Schemes of local taxation.⁶³ But when he read the reports on the administration of the Income Tax in Bengal and had completed his personal investigation of the working of the tax, his enthusiasm for an Income Tax diminished rapidly. He uncovered a depressing story of inefficiency and corruption on the part of officials and mistrust and evasion on the part of the people.⁶⁴ He found neither principle nor system in the methods of assessment adopted locally and as a tireless champion of the rights of the ryots he was appalled to discover that the most numerous class of persons assessed under the Income Tax Acts in Bengal were cultivators.⁶⁵ Temple claimed that administrative inefficiency and official corruption would disappear when district officers and tahsildars acquired increased experience of the tax, and he thought that the people would acquiesce in the tax more readily after they had become accustomed to it and realized that it was to be permanent. But the evidence of Muir in the North-Western Provinces and Campbell in Bengal, neither of whom objected to Income Tax in principle, did nothing to confirm such sanguine predictions. And opposition to the tax, official and unofficial, mounted annually.

Thus, Temple prepared his fourth Budget, for 1872-73, with considerable apprehension. Mayo, who had consistently supported his Finance Minister in public whatever he thought of the tax privately, was dead. Lord Northbrook would not arrive until early summer. The Acting Governor-General, Lord Napier and Ettrick, had seen the working of the Income Tax in Madras where he had been Governor, and had come to Calcutta strongly prejudiced against its retention. His attitude revived doubts among other Councillors.⁶⁶ As a result, Temple felt compelled to pen a sharp Minute against the abolition of the tax before

⁶² W. Grey to Mayo, 26 August 1870, Mayo Papers (letters from Grey).

⁶³ Sir George Campbell was President of the Orissa Famine Commission, 1866-67, Chief Commissioner of the Central Provinces, 1867-68; and Lieutenant-Governor of Bengal, 1871-74.

⁶⁴ P. P., 1872, vol. XLIV, (289), Income Tax Administration—Report for the Lower Provinces, for the Years 1869-70 and 1870-71, with enclosures.

⁶⁵ *Ibid*—G. Campbell: Minute, 8 August 1871, sections 3 & 4.

⁶⁶ R. Temple to his father, 22 March 1872, 86.19.

the arrival of Northbrook,⁶⁷ and Strachey took the same line in the Legislative Council.⁶⁸ That the Income Tax was retained at all was mainly due to the steady pressure exerted in support of it by Argyll in London, who sent three telegrams to India during March upholding Temple's view.⁶⁹ The Income Tax was retained for 1872-73 at 1%, which was the same rate as in the previous year but with the assessable minimum raised to incomes of Rs. 1,000 per annum. Temple aimed at a surplus of a quarter of a million sterling, but this ultimately reached one and three-quarter million, so that he was able to record with pardonable pride: "Thus ended the fourth year of surplus; and this cycle of four consecutive years was the most prosperous time yet known in Indian finance."⁷⁰

If Lord Napier and Ettrick had been appointed as permanent Governor-General, Temple felt that he would have been compelled to resign as Finance Minister,⁷¹ and he, therefore, looked forward to the arrival of Northbrook, who was known to be an able financier, with confidence.⁷² Temple had no inkling that the new Governor-General intended to reverse many of the policies of the last few years and in all probability Northbrook reached India with an open mind on the subject of the Income Tax. Temple soon sensed, however, that Northbrook's views were likely to differ from his own. The new Governor-General would not be drawn prematurely into a discussion as to the merits or failings of direct taxation in India, but he gave some indication of his personal feelings when he told Temple: "In questions of taxation in India, it seems to me that political considerations are fully as important as a perfect agreement with the principles of political economy."⁷³

Foreseeing conflict, Temple contemplated resignation⁷⁴ but he remained adamant on the necessity for retaining Income Tax. When Henry Fawcett criticized the conduct of Indian finance in the House of Commons, Temple replied with a lengthy, forceful Memorandum in which he wrote of the Income Tax: "...It enlists in the cause of economy all the most influential classes in

⁶⁷ R. Temple: Minute, 12 March 1872, F. 86.98.

⁶⁸ Proceedings of the Legislative Council, 1872, J. Strachey: Speech, 17 April 1872, p. 523.

⁶⁹ R. Temple to his father, 12 and 26 April 1872, F. 86.19.

⁷⁰ R. Temple: *Men and Events of My Time in India*, p. 359.

⁷¹ R. Temple to his father, 12 April 1872, F. 86.19.

⁷² *Ibid.*, 10 May 1872, F. 86.19.

⁷³ Northbrook to R. Temple, 25 June 1872, C. 144.13.

⁷⁴ R. Temple to his father, 22 July and 5 August 1872, F. 86.19.

the country. When they feel no fiscal pressure themselves, they are apt to urge additional improvement without due regard to considerations of economy. I affirm most confidently from experience that no circumstance whatever has been more potent for the enforcement of economy in late years than the income tax."⁷⁵

Meanwhile, Northbrook had analysed the situation and concluded that unrest was widespread throughout the country. His remedy was less legislation and reduction in taxation.⁷⁶ This decision had been strengthened by the opinions of officials from every part of India and from all grades of the service.⁷⁷ The clash with his Finance Minister thus became unavoidable, and as Temple's fifth and last Budget approached, supporters of the Income Tax dwindled to a few senior officials. R. B. Chapman, the experienced and independent Financial Secretary to the Government of India, wished to retain it.⁷⁸ So did Napier of Magdala, Barrow Ellis and Davies in Punjab, and they were joined by the new Law Member, Hobhouse.⁷⁹ Muir, unexpectedly, put in a good word for it by telling Northbrook: "...I have ceased to be assailed with reclamations against the tax...Besides, it cannot be denied that the Income-tax possesses some features of advantage."⁸⁰

The most forceful defender of the Income Tax was the new Governor of Bombay, Wodehouse, whose subordinates had uncovered fewer grievances against the tax in the Bombay Presidency than elsewhere.⁸¹ But his predecessor, Fitzgerald, had opposed the tax, and Northbrook was not disposed to pay much heed to Wodehouse's views which were so much at variance with the reports of officers from other provinces.⁸²

Northbrook was confronted by the contradictory evidence of officials from every part of India and with experience of every

⁷⁵ R. Temple: Memorandum, 10 October 1872, F. 86.93.

⁷⁶ Northbrook to Hobart, 19 May 1872, and Northbrook to Muir, 23 September 1872, C. 144.13.

⁷⁷ For example: Hobart, Governor of Madras, to Northbrook, 27 May and 10 August 1872; A. Eden, Chief Commissioner, British Burma, to Northbrook, 15 September 1872; A. O. Hume, Secretary to Government of India, Department of Revenue, Agriculture and Commerce, to Northbrook, 1 August 1872; S. Wauchope: Additional Judge. 24 Parganas, to Northbrook, 8 October 1872, C. 144.13.

⁷⁸ Northbrook to Salisbury, 2 June 1874, C. 144.11.

⁷⁹ A. Hobhouse to Northbrook, 3 March 1873, C. 144.14.

⁸⁰ W. Muir to Northbrook, 13 July 1872, C. 114.13.

⁸¹ P. Wodehouse to Northbrook, 25 December 1872, C. 144.13., and 5 January 1873, C. 144.14.

⁸² Northbrook to P. Wodehouse, 30 December 1872. C. 144.13.

aspect of Indian administration.⁸³ On balance, he preferred to heed the warnings of those Civilians who worked close to the realities of Indian life rather than accept the opinion of men who worked in the comparative isolation of the Secretariats.⁸⁴ Hence, his choice was based upon broad considerations of statecraft. According to his diagnosis, India required a rest from new laws which she could not understand and costly improvements which she could not afford. He believed that India was seething with discontent because she had been over-administered in recent years. There had been too many new rules and regulations, enquires and inquisitions. Northbrook was not hostile to progress but he sought to slow down the rate of progression, and he was, besides, instinctively cautious and Whiggish. In retrospect, his policy seems timid and reactionary, but there was plenty of evidence to justify his fears, and in sacrificing the Income Tax as a gesture to those fears he was guided by his own practical ability in financial administration. Certainly he was impressed by Strachey's assurance that, had Mayo lived, he would have abandoned the tax,⁸⁵ and by the prospect of an increased surplus for 1872-73, though Temple argued that the existence of a surplus did not justify such a step, since a surplus improved Government credit and had been ordered by the Secretary of State. But Northbrook was immovable and on 28 March 1873 a Government Resolution announced that the Income Tax would not be reimposed. Against this Resolution Temple wrote an impressive Minute of Dissent, ranging over every aspect of the subject, and stressing that the loss of the Income Tax was injurious to the general welfare because, as a tax, it redressed the balance of Indian taxation hitherto so advantageous to the rich and so unfavourable to the poor.⁸⁶ In returning to this argument for social justice and State intervention to protect the weaker sections of the community from the more powerful and predatory elements in society he was deliberately challenging the *raison d'état* character of the "aristocratic reaction" by reaffirming the paternal idealism implicit in the "Punjab tradition". His views were supported in Minutes by both Barrow Ellis and

⁸³ Northbrook: Minute, 14 April 1873, F. 86.98.

⁸⁴ Northbrook to Hobart, 19 May 1872, C. 144.13.

⁸⁵ Northbrook to the Queen, 11 August 1873, C. 144.8.

⁸⁶ R. Temple: Minute, 2 April 1873, in India, Financial Department, Collection to Despatch No. 336 of 1873.

Napier of Magdala.⁸⁷ Northbrook answered these protests in a Minute which in view of the later history of taxation in India seems inadequate and inconclusive.⁸⁸ Temple refrained from embarrassing the Government further and in his final Minute on the subject he restricted himself to purely fiscal aspects of the case.⁸⁹ He pointed out that on account of the increasing uncertainty as to the annual revenue from opium the Indian Government would have to face further financial crises in the future, and that this was good reason for keeping the Income Tax as a useful reserve.

Temple was probably right in thinking that the tax was abandoned at a time when people were beginning to grow accustomed to it. He had been compelled to accept its loss in 1873 not because the agitation against it was greater then than in 1871 or 1872, but because the Governor-General, an able financier with a will of his own, was implacably opposed to its retention. Under these circumstances, the Secretary of State was unwilling to enter into conflict with the head of the Government in India, although he agreed in principle with Temple and had hitherto supported him. Despite the reversal of the policy with which he had been so closely identified, Temple did not resign. Routledge, the Calcutta correspondent of *The Times*, noting that Temple "cheerfully accepted the inevitable", assumed that this was "perhaps a proof that he cared merely for performing well the duties of the passing hour..."⁹⁰ But Routledge was wrong in this respect, for Temple had fought hard for his cause, though he was a sufficient realist to be able to recognise defeat. His private letters as well as his public statements prove conclusively his sincerity in urging direct taxation for India, but by 1873 neither his protests nor his resignation could have saved the tax from extinction. Its retention from 1869 to 1873 was in itself no mean achievement in a term of office distinguished in

⁸⁷ B. H. Ellis: Minute, 31 March 1873, and Napier of Magdala: Minute, 6 April 1873, in India, Financial Department, Collection to Despatch No. 336 of 1873.

⁸⁸ Northbrook: Minute, 14 April 1873, India, Financial Department, Collection to Despatch No. 336 of 1873.

⁸⁹ R. Temple: Minute, 24 April 1873, F. 86.98.

⁹⁰ J. Routledge; *British Rule and Native Opinion in India*, pp. 130 and 147.

the history of Indian finance or the introduction of the system of provincial allocations of revenue. The persistence with which Temple fought for the tax was proof that the Government had resolved to escape from the dreary round of deficits and loans, and thereby encouraged retrenchment in expenditure. He proved conclusively that a permanent Income Tax was a practical administrative device for India, a fact which was still uncertain when the first Income Tax was abolished in 1865. Like Wilson, Temple wished to give the Indian Government greater stability its financial resources than was possible from the uncertain returns of the opium trade and the fluctuating income derived from land, and since during this period neither railways nor irrigation offered an alternative source, it was natural that he should turn to direct taxation, of which Income Tax was the most equitable form. His fault had been his contempt for the political considerations involved in such a policy. In particular, it had been a grave error of judgment on the part of the Government, for which he shared responsibility, that the annual rate of assessment was allowed to vary so much. Yet if there was no sign of consistency or permanence in the history of the Income Tax during those years the fault was chiefly due to the virulence of the opposition. It is a sobering reflection that during the period 1860-86 there were no less than 23 Acts passed connected with direct taxation.⁹¹ In retrospect, it can be seen that the period 1869-73 constituted a forcing-house for new attitudes towards Indian taxation problems. In 1877-78 direct taxation returned when Strachey, as Finance Minister, introduced yet another License Tax on trades. His successor, Evelyn Baring, advocated unsuccessfully a comprehensive scheme of direct taxation. Finally, in 1886, Auckland Colvin levied a tax on all incomes derived from non-agricultural sources, arguing that it was a disgrace that India's poor should pay for the security of her rich. A new phase had opened in the history of Indian taxation with Income Tax as a permanent source of revenue. Within six years of Temple's departure from India his policy had been vindicated.

⁹¹ P. Banerjia: *A History of Indian Taxation*, London, 1930, p. 25.

THE DRAIN OF WEALTH AND INDIAN NATIONALISM AT THE TURN OF THE CENTURY

John McLane

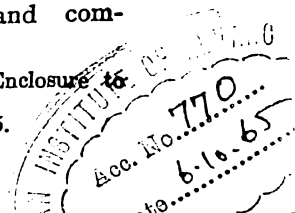
The question of drainage of wealth from India under the British rule still remains one of the major problems in the study of Indian economic history. At the turn of the 19th. century, it was one of the chief planks in the nationalist propaganda. Mr. McLane here scrutinises the truth of the nationalist contentions and their influence on the growth of political militancy in India.

Between the passing of the Councils Act of 1892 and the partition of Bengal, the economic aspects of British rule, rather than the political, most occupied the attention of Indian nationalists. The severe famines of 1897 and 1899-1900 gave weight to Indian complaints about the 'drain' of wealth to England and the over-assessment of the land. The 'drain' gained special prominence during the 1890's because of the increasing amount of the Indian revenues required to pay the Home Charges. The persistent complaint punctuating many writings and speeches between 1895 and 1910 was that India was being 'drained', 'throttled', 'bled', 'sucked', and 'exploited' of her wealth, that the British were removing the surplus capital without which no economy could develop.

In the description of the 'drain' which follows, it is important to remember that few officials were impressed by the drain argument. Lord Curzon, for instance, described as 'nonsense' the idea that India 'is bleeding under British rule'.¹ Sir John Strachey thought that 'the payments made by India are the result and the evidence of the benefits which she derives from her connection with England. In place of constant anarchy, bloodshed, and rapine, we have given her peace, order, and justice; and if our Government were to cease all the miseries from which she has been saved would inevitably and instantly return. Her payments in England are nothing more than the return for the foreign capital in its broadest sense which is invested in India, including as capital not only money, but all advantages which have to be paid for such as the intelligence, strength, and energy on which good administration and commercial prosperity depend'.²

¹ Curzon's speech to the Anjuman-i-Islamia, Lahore, Enclosure 46. Curzon to Hamilton, 5 April 1899, MSS.Eur. 510/1.

² *India: Its Administration and Progress* (1903), p. 195.



But if officials were not usually sympathetic to the 'drain' argument, the nationalists were not convinced by the Strachey thesis either. In 1904 R. C. Dutt was urging 'Retrenchment and Representation'³ at the same time that Lord Curzon was increasing Government expenditure and saying that political reform had progressed as far as possible.⁴ With this wide measure of disagreement between the official and the nationalist outlook, the ultimate solution could only be a political one.

The key to the drain was to be found in the financial arrangements between the United Kingdom and India. These arrangements were submitted to a variety of analyses between 1895 and 1905. In 1895 the Welby Commission was appointed to inquire into the military and civil expenditure in England on behalf of India and 'the apportionment of charge between the Governments of The United Kingdom and India for purposes in which both are interested'. The appointment of this Royal Commission followed a demand by the Indian Parliamentary Committee, of which William Wedderburn and Dadabhai Naoroji were members, for an inquiry into the economic condition of India.⁵ Wedderburn, Naoroji, and W. S. Caine were members of the Welby Commission, and H. Morgan-Browne (Secretary to the British Committee of the Indian National Congress), G. K. Gokhale, G. Subramania Iyer, D. E. Wacha, Surendranath Banerjea, and Naoroji appeared before it as witnesses. The final Report, which was presented in 1900, was not signed by Wedderburn, Caine, and Naoroji who appended their own Report, declaring their disappointment that the Welby Commission did not consider 'whether the Government of India, with all its machinery as then existing in India, had, or had not, promoted the general prosperity of the people in its charge, and whether India was better or worse off by being a province of the British Crown'.⁶

The drain and its consequences were discussed in numerous speeches and in several books during the period under review. Among the principal books were R.C. Dutt's *England and India : A Record of Progress during a Hundred Years* (1897), *The Econo-*

³ Romesh Dutt, *India in the Victorian Age : An Economic History of the People*, (1904); p. 612.

⁴ Curzon's speech on the 1904-05 Budget Statement, 30 March 1904, *Progs. of the Legislative Council of the Governor-General*, 1904, p. 560.

⁵ *India*, Vol. VII, No. 12 (Dec. 1896).

⁶ Report by Sir W. Wedderburn, W. S. Caine, and D. Naoroji, Para. 3.

mic History of British India (1902), and *India in the Victorian Age : An Economic History of the People* (1904) ; William Digby's '*Prosperous*' *British India* (1901) ; and Dadabhai Naoroji's *Poverty and Un-British Rule in India* (1901). The drain was also referred to, although in less detail, in Prithwis Chandra Ray's *The Poverty Problem in India* (1895), M. G. Ranade's *Essays on Indian Economics* (1899), and G. Subramania Iyer's *Some Economic Aspects of British Rule in India* (1903).

It is necessary to understand what an Indian nationalist meant when he used the word 'drain'. The most common meaning attached to the word was the wealth which left India for which there was no equivalent return in merchandise or treasure. By this definition, the drain equalled the surplus of exports over imports or the visible balance of trade.⁷ In the ten years, 1899-1900 to 1908-09,⁸ the value of India's exports annually exceeded its imports by an average of £15,051,000. This should not be regarded as the amount by which India was impoverished each year. In the years 1903 to 1908, the following countries also had large annual export surpluses : Brazil (£14,099,000), Australian Commonwealth (£19,898,340), Russian Empire (£33,175,000) and the United States (£98,698,000).⁹ An export surplus is frequently a feature of the trade of a country in the early stages of industrial development.

Sometimes the 'drain' was used to include, besides the visible balance of trade, estimates of the interest paid to England on private capital investment and the remittances of European non-officials. Naoroji apparently was doing this in 1901 when he stated that the annual drain was £30,000,000¹⁰ although the

Indian Expenditure Commission, Vol. IV.

Final Report of the Royal Commission on the Administration of the Expenditure of India, (d. 131 of 1900).

⁷ The drain was defined as the surplus of exports by R. C. Dutt (*India in the Victorian Age*, p. 528), Naoroji (*Poverty and un-British Rule in India*, p. 34) and Digby '*Prosperous*' *British India*, p. 216. This is also the definition accepted by C. J. Hamilton. *The Trade Relations Between England and India (1600-1896)* (1919), p. 136, and by Holden Furber, *John Company at Work* (1951), p. 304.

⁸ This period is used rather than a period covering the 1890's because the 1890's are unrepresentative and would be less illuminating due to the exchange crisis and the fall in exports during the famine years.

⁹ Quoted from the Financial and Commercial Supplement of the *London Times*, 30 Sept. 1910, by Theodore Morison. *The Economic Transition in India* (1911), p. 206.

¹⁰ Naoroji, *op. cit.*, p. VIII.

average export surplus in the preceding four years had been only about £13,000,000 per annum.¹¹

Naoroji, and the other persons who followed him in estimating the drain at £30,000,000, seem not to have understood the mechanics of private remittances. In the first place, private remittances to Europe were not much in excess of fresh European investment in India so that, in balance, the amount of private money leaving India was not large.¹² Secondly, most of the private remittances were made through Exchange banks. The European in India wishing to make a remittance would pay Rupees into the Indian branch of an Exchange bank and receive a bill payable in Sterling in London. The London branch would honour the bill from money received from the sale of Indian goods in the United Kingdom or from bullion imported from India.¹³ In either case, the actual transfer of capital would be shown in the trade figures. Thus, to count the money remitted privately in this manner as part of the drain would be to count it twice.

Sometimes the word 'drain' was used figuratively and included expenditure in India on such items as the Army or European Agency.¹⁴ But the usual meaning was surplus of exports for which India received no commercial equivalent.

Theodore Morison devoted two chapters of his book, *The Economic Transition in India* (1911), to the drain. He made a distinction between the "actual" and the "potential" drain. The actual drain was the excess of export, or £15,051,000 per annum from 1899-1900 to 1908-09. The potential drain which Morison computed consisted of, besides the excess of exports, the increase of the Government of India's capital liabilities in England (£4,193,000 per annum), the "interest on private capital, earnings of English merchants and professional men, and freights earned by English ships in Indian waters". The potential drain represented the amount by which India's exports would have had to exceed her imports in order to avoid borrowing capital abroad to meet her foreign obligations. Morison estimated the potential

¹¹ Dutt, *India in the Victorian Age*, p. 528.

¹² Sir George Cambell estimated in 1887 (*The British Empire*, p. 70) that the private remittances were about balanced by the flow of fresh capital into India from Europe. Quoted by Digby, *op. cit.*, p. 231.

¹³ Function of the exchange banks described by Vera Anstey, *The Economic Development of India*, 4th ed., 1952, pp. 116-17.

¹⁴ A. J. Wilson seemed to be doing this when he set the drain at £35,000,000 annually, *An Empire in Pawn*, p. 64.

drain to be £21,000,000 per annum for the years 1899-1900 to 1908-09. In arriving at this figure he guessed that the amount of foreign capital invested privately in India was at most £2,000,000 or one-half as large as the amount borrowed by the Indian Government in England.¹⁵ Dr. Anstey regards Morison's discussion as one of the most intelligent analysis of the drain. Neither Anstey nor Morison regards the drain as impoverishing. On the contrary, they both believe the money spent on European agency, railway development, and defence as well spent on the whole.¹⁶

As already indicated, a surplus of exports was not necessarily incompatible with increasing prosperity. A country with such a surplus would accumulate credit abroad. Actually, it was the Home Charges, on which India's foreign credit was spent, that Indian nationalists objected to. In order to pay the Home Charges, the Government of India, in the years 1899-1900 to 1908-09, not only paid to England £15,051,000 representing the annual balance of trade, but it also had to borrow in England enough to pay the remainder of the £18,598,000 representing the average annual Home Charges.¹⁷ In these years, the Home Charges usually amounted to more than one-fourth of the total expenditure of the Government of India.¹⁸

The surplus of exports was transformed into credit for India through the sale of what were known as Council Bills. When an importer in Europe wanted rupees to pay for his imports from India, he paid sterling to the Secretary of State in London in return for Council Bills. These Bills were then presented at the Government treasury in India where the holder received rupees out of the Indian revenues in exchange for the Bills. In this way the Secretary of State obtained most of the money required to pay the Home Charges.¹⁹

¹⁵ Morison, *op. cit.*, pp. 197-203.

¹⁶ Anstey, *op. cit.*, Appendix G, pp. 599-600. Morison, *op. cit.*, pp. 240-241.

¹⁷ Morison, *op. cit.*, pp. 196-8.

¹⁸ General Statement of the Gross Expenditure charged against Revenue in India and England, Statistical Abstract relating to British India from 1899-1900 to 1908-09, (d. 5345 of 1910), pp. 50-51.

¹⁹ The Secretary of State sold Council Bills to be drawn on the Indian Treasury at the annual rate of £17,500,000 from 1899-1900 to 1909-10. Sir John Strachey, *India: Its Administration and Progress* (1911), pp. 210-11.

Exchange difficulties between 1873 and 1898 added a considerable burden to the amount paid from the Indian 'revenues for the Home Charges. Until 1893 India was on a silver standard and England was on a gold standard so that India had to meet her obligations in England in gold. As long as the gold value of silver remained constant this arrangement was satisfactory to India. But after 1883 the value of silver began to depreciate. The result was that India was forced to remit more silver (*i.e.*, spend more rupees) in order to meet the same obligations in England. In 1873-74, the exchange value of the rupee had been about 2s. By 1892-93 the exchange value had fallen to 1s. 2d.²⁰ This meant that in 1892-93 the Government of India had to raise Rs. 264,780,000 to meet the Home Charges of £16,532,000. Had the exchange rate of 1873-74 still prevailed, the Government would have had to spend Rs. 177,529,000, or Rs. 87,260,000 less for the 1892-93 Home Charges.²¹ In 1893 a committee was appointed under the presidency of Lord Herschell to consider the problem, and in accordance with the committee's recommendations the Government of India closed the mints to the free coining of silver in 1893.

As the Government ceased to add to the number of rupees in circulation, the demand for rupees began to grow, the price of rupees rose, and by 1898 the exchange value of the rupee had reached the desired 1s. 4d. After 1898 the exchange rate was maintained for fifteen years at 1s. 4d. with only minor fluctuations.²²

The stabilization of the rupee at 1s. 4d. saved the Indian tax-payer large sums of money on the remittances to England. But the currency legislation affected the cotton goods trade unfavourably and this obscured for some of the Congress supporters the benefit conferred upon balance of payments by the currency reforms. When the gold value of silver had been low, Indian exporters and manufacturers had been at an advantage in selling to gold standard countries. For the same reason the Government of India and importers had lost through exchange. After the gold value of the rupee increased, the Indian cotton industry no longer possessed its former advantage. It was actually at a disadvantage in its principal market, China, which

²⁰ *Cambridge History of India*, Vol. VI, p. 321.

²¹ *Strachey, op. cit.*, p. 197.

²² Final Report of the Royal Commission on Indian Finance and Currency, 1914 (Chamberlain Commission), d. 7236 to 1914, para. 15-20.

continued on the silver standard, and sought its cotton goods increasingly from its own mills or from Japan, rather than from gold standard countries like India. The temporary decline of the Chinese demand for Indian yarns and cottons was one of the reasons for the five-year slump after 1900 in the Bombay mills,²³ and the nationalists blamed the Government's currency legislation for the difficulties in the one major industry in which Indian investment predominated over foreign.²⁴

It would be misleading to suggest that the Home Charges exactly or even approximately represented the amount by which India was impoverished or exploited. An analysis of the components of the Home Charges shows that some of the charges were similar to those paid voluntarily by independent countries.

The Home Charges consisted in 1901-02 of the following items. The year 1901-02 is taken as the year between 1899-1900 and 1908-09 in which the Home Charges most closely approximate to the annual average for that decade.

Railways, interest and annuities	£6,416,373
Interest on debt (excluding that on the railway debt)	3,003,782
Management of debt	48,628
Army Services	4,383,059
Stores	1,918,206
Civil Charges, Furloughs, Pensions, Allowances, and Miscellaneous	1,370,903
Charges on account of Departments in India	227,704
Total	£ 17,368,635 ²⁵

The Home Charges may be divided between two categories: The "economic" payments and the "political" payments.²⁶ The economic payments consisted of the interest on the railway and the permanent debt, the management of the debt, and the stores, or in other words, foreign expenditure of a type which any independent country might make in the early stages of

²³ D. H. Buchanan, *The Development of Capitalist Enterprise in India* (1034), pp. 155, 200.

²⁴ See Speech by Vithaldas Damodardas Thakarsey, *Report of the 19th Indian National Congress*, p. 99.

²⁵ These figures are compiled from the Statistical Abstract... 1899, 1900 to 1908-09, pp. 70-71, and the Moral and Material Progress Report for 1901-02, pp. 134-35.

²⁶ Theodore Morison suggested these categories, *op. cit.*, pp. 236-37.

industrial development and railway building.²⁷ The political charges would be the military, administrative, and civil charges, pensions, and allowances which India could not presumably have paid as an independent country. If such a hypothetical division is made for the year 1901-02, the economic charge was £10,386,989 and £6,981,666 was the political charge.

The individual items of the Home Charges may be examined. The largest item was the railway charge and it was increasing rapidly in the period under review. In 1899-1900 it was £5,913,780; by 1908-09 railway payments in England amounted to £8,249,846. However, the nature of the payments was changing. In the former year £2,172,336 of the railway expenditure had been interest paid on guaranteed lines, while in the latter year none of the expenditure was on guaranteed lines.²⁸ The early railway lines had been built by European Companies whose profits were guaranteed by the East India Company at the rate of 5 per cent. Private European capital probably could not have been attracted at the mid-century without a guarantee, and five per cent. was a low rate of interest for railways before 1870.²⁹ But the arrangement was unsatisfactory from several points of view. The Government took the risk without the opportunity of receiving the profits while the Companies reaped the profits with little incentive to economy. Daniel Thorner has labelled the guarantee system as "Private Enterprise at Public Risk".³⁰ During the latter half of the century the Secretary of State for India found that India could borrow in London at lower rates of interest for State Railways and that private companies would enter contracts on terms more advantageous to India. In guaranteeing the early railways, the right had been reserved to purchase the lines after the lapse of certain periods of time, and the Secretary of State exercised this power so that by the end of 1907, the last of the guaranteed railways had been bought up.³¹ With the decline of payments on the

²⁷ It is not intended to suggest that an Independent India would have spent as much as British India did on these items.

²⁸ Statistical Abstract....1899-1900 to 1908-09, p. 70.

²⁹ W. J. MacPherson, "Investment in London Railways, 1845-1875", *Economic History Review*, 2nd Ser., Vol. VIII, No. 2, (1935), p. 181.

³⁰ *Investment in Empire: British Railway and Steam Shipping Enterprise in India: 1825-1849*, (1950), p. 168.

³¹ Statistical Abstract....1899-1900 to 1908-09, Note, p. 49. The practice of guaranteeing railway profits was abandoned in 1869.

guaranteed railways and the increase in the volume of traffic, the public works of India began after 1900 to show a profit to the public revenues for the first time. In 1900-01, there was a slight profit; in 1901-02 it was £ 750,000; and in 1905-05, they earned India £ 2,000,000.³²

India borrowed in England at a lower rate of interest than other foreign countries did. In the early years of this century, Japan, for instance, paid $4\frac{1}{2}$ to 5 per cent on its foreign loans while India paid about $3\frac{1}{2}$ per cent.³³ The yield to British investors on Indian railways in 1907 was 3.87 per cent; on colonial railways, 4.0 per cent; on American railways, 4.5 per cent and on other foreign railways, 4.7 per cent.³⁴ Thus, at the beginning of the century, Indian nationalists had less reason to complain about the current rate of interest paid to foreign capitalists. Furthermore, they could no longer say that railroads were unprofitable to the State.

Rather, it was the priority given to railway construction and the public debt incurred by the earlier and more extravagant expenditure which was open to criticism. It was complained that the total outlay before 1902 on railways had been £ 226,000,000 compared to £ 24,000,000 spent on irrigation works,³⁵ that some railways were built for military purposes and could not be expected to yield a commercial return,³⁶ and that other railways were built at the request of English manufacturers who wanted to open Indian markets to cheap, British manufactured goods, thereby hastening the de-industrialization of India and converting her into a producer of raw materials only.³⁷

³² *Cambridge History of India*, Vol. VI, pp. 325-26.

³³ Morison, *op. cit.*, p. 239.

³⁴ Albert H. Imlah, "British Balance of Payments and Export of Capital, 1816-1913", *Economic History Review*, 2nd Ser., Vol. 5, No. 2 (1952).

³⁵ Dutt, *India in the Victorian Age*, p. 550.

³⁶ Speech of D. E. Wacha, *Report of the 17th Indian National Congress*, p. 46. The North-Western Railway, a large part of which was classified as military, accounted for a net charge to the Government of Rs. 25.33 crores up to the end of 1900. The net charge of all other State Railways to the end of 1900 was Rs. 6.08 crores. Statement of Financial Statistics of State Railways....for and to the end of the Year 1900. *Supplement to Gazette of India*, 6 July 1901.

³⁷ For a fuller nationalist view, see D. E. Wacha, *Indian Railway Finance* (1912). W. J. MacPherson gives instances in which British commercial groups influenced railway policy in directions not necessarily beneficial to India, "Investment in Indian Railways, 1845-1875", *op. cit.*, p. 185.

While the railway or 'productive' debt was increasing the ordinary or 'unproductive' debt was decreasing. The ordinary debt had included the £ 12,000,000 owed to the stockholders of the old East India Company, the cost of suppressing the mutiny, and expenses arising out of other wars. The ordinary debt stood at £ 96,000,000 in 1862 ; by 1897 it had been reduced to £ 72,721,161, or by more than 24 per cent. In the same period the rate of interest paid on the debt declined from 4·543 per cent to 3·393 per cent. In consequence, the annual charge of interest on the 50 per cent not including exchange, or by 16 per cent including exchange.³⁸ By 1909 the ordinary, or unproductive debt had been reduced still further, to £ 37,700,000.³⁹

Looking now at the Total Permanent Debt of India, including the productive and unproductive debt, and the debt held in India as well as in England, it will be seen that it was growing rapidly in the period under review, and that it was increasing more rapidly in England than in India. In 1898-1900 the Total Permanent Debt in India was Rs. 1,12,475 millions ; in 1908-09 it was Rs. 1,34,566 millions. In England during the same period, the debt rose from £ 119·64 millions to £ 160·97 millions.⁴⁰ Even these figures do not give an adequate idea of the degree to which the Indian Government depended on foreign capital. The Welby Commission reported that 'out of Rs. 103,000,000 borrowed in India, Rs. 25,000,000 was actually held at home [United Kingdom], that Rs. 48,000,000 was held by Europeans in India, and that only Rs. 30,000,000 was held by Natives of India'.⁴¹ Why was more of the Governments' capital not borrowed from Indians themselves ? The most important reason was that English interest rates were lower than Indian ones. The Government of India could borrow in England at the rate of between 3 and 4 per cent. In Bombay, according to Wacha, capital could be borrowed for as little as 4 to 5 per cent but in most places Indians wanted 6,7,8 or 9 per cent.⁴² A study is

³⁸ Final Report of the Royal Commission on the Administration of the Expenditure of India, paras. 121-29.

³⁹ Strachey, *India: Its Administration and Progress* (1911), p. 251.

⁴⁰ Statistical Abstract...1899-1900 to 1908-09, p. 267.

⁴¹ Indian Expenditure Commission, Vol. IV, Final Report, para. 350.

⁴² Indian Expenditure Commission, Vol. III, Minutes of Evidence, Question, 17,566.

needed of the efforts, or lack of them, made by the Government to raise Indian capital. Again, a word of caution is needed about the significance of the Indian debt and the interest paid on it. India's public debt was small compared to that of the United Kingdom, and the interest India paid to the United Kingdom on private and public loans was only a fraction of the £ 60,000,000 or so which the United States was annually remitting to Europe about 1910 as interest.⁴³ It is a truism, but nevertheless worth repeating, that the significance of India's foreign obligations was not to be found in their absolute size. The question is whether India should have put surplus capital back into her economy at once, or invested it in railways in the hope of future economic expansion.

M. G. Ranade was among the minority of nationalists who felt that 'far from complaining, we have reason to be thankful that we have a Creditor who supplies our needs at such a low rate of interest'.⁴⁴ A more common view was that foreign investment was more or less the same as foreign exploitation. The *Power and the Guardian* of Calcutta made this point when it said that from the point of view of an Indian, an influx of British capital 'will be one of those irreparable evils which make their sinister influence felt upon distant generations. It is doubtful if the indigenous population will ever have strength enough to shake off the financial bondage which the larger and freer influx of foreign capital will necessarily impose upon the country. What the zealous capitalist calls increased material prosperity is from another point of view nothing but greater exploitation'.⁴⁵

The next item of the Home Charges—the £4,383,059 in 1901-02 for army services—was the section of the Charges open to easy attack. In 1900 India employed about one-third of the whole British Army. The Indian revenues were charged with the cost of training these men in England (16,000 men a year in 1890), with a major share of the pensions, with their transport to and

⁴³ Morison, *op. cit.*, p. 215.

⁴⁴ Inaugural Address to the 1st Industrial Conference, Poona, 1890. *Essays on Indian Economics: A Collection of Essays and Speeches* (1899), p. 186. Ranade also said that although there was good cause for complaint about the Home Charges for pensions, administration, and defence, 'we should not forget the fact that we are enabled by reason of this British connection to levy an equivalent tribute from China by our Opium Monopoly'.

⁴⁵ *Power and the Guardian*, 15 July 1899, Thagi and Dakaiti Department Selections from the Native Newspapers, 24 July 1899, Political and Secret Letters from India, Vol. 115.

from India, and with all expenses incurred by the troops between the day they left England and the day they returned, or for an average of six years per man. Between 1875-76 and 1896-97, the net army expenditure in England rose from £ 3,476,000 to £ 4,133,000. Because of the fall in the exchange value of the Rupee this meant that the cost to India increased from Rs. 38,580,000 to Rs. 68,650,000. In the same period, the total army expenditure in England and India, including exchange increased from Rs. 162,590,000 to Rs. 259,730,000.⁴⁶

Much of the increase had nothing to do with the direct defence of India, and it was not only the nationalists who complained of this. In one of the numerous formal representations made by the Government of India about military costs,⁴⁷ Lord Lansdowne's Government expressed its opinion to the Secretary of state that :

'The revenues of India have been charged with the cost of many charges in organization not specially necessary for the efficiency of the army in this country, and with the cost of troops employed on Imperial service beyond the limits of India. Millions of money have been spent on increasing the army in India, on armaments, and on fortifications, to provide for the security of India, not against domestic enemies, or to prevent the incursions of the warlike peoples of adjoining countries, but to maintain the supremacy of British power in the East'.⁴⁸

On 18 July 1900, about one-tenth (23,022) of the Indian army were serving outside of India, including 9,186 men in South Africa and 10,616 in China, although in these particular instances the Home Government paid the costs.⁴⁹ The manner in which expenses for military expeditions beyond India's borders were divided before 1895 may be seen in the following statement :

⁴⁶ Indian Expenditure Commission, Vol. IV. Final Report, Paras. 218-227.

⁴⁷ See Suakin Expedition: Correspondence between the Government of India and the Secretary of State in Council regarding the incidence of the cost of Indian Troops when employed out of India, H. of C. 8131 of 1896.

⁴⁸ Indian Expenditure Commission, Vol. II. First Report, C. 8259 of 1896, Appendix 45, No. 1, Government of India to Secretary of State, No. 70, 25 March 1890, Para. 21.

Government protests against the financial arrangements with the United Kingdom were a favourite source of ammunition for nationalist-speakers. This particular despatch of Lansdowne's was quoted by Srinivas Rao at the 1902 Congress. *Report of 18th I.N.C.*, p. 103.

⁴⁹ Curzon to Hamilton, 15 July and 15 Aug. 1900, MSS, Eur. D. 510/5.

Expedition	Date	<u>Ordinary charges</u>		<u>Extraordinary charges</u>	
		Paid by India	Paid by England	Paid by India	Paid by England
1st Afghanistan ..	1838-42	All	None	All	None
1st China ..	1839-40	All	None	None	All
2nd China ..	1856-57	None	All	None	All
Persia ..	1856	All	None	Half	Half
3rd China ..	1859	None except expenses of Indian Navy vessels.	All	None	All
Abyssinia ..	1867-68	All	None	None	All
Perak ..	1875	All	None	None	All (by Colonial Government).
Malta ..	1878	None	All	None	All
2nd Afghanistan ..	1878-80	All	None	All but £5,000,000	£5,000,000
Egypt ..	1882	All	None	All but £5,000	£5,000
Soudan ..	1885-86	All	None	None	All

50

In 1900, upon therecommendation of the Welby Commission, India was relieved of a total of £ 257,000 on account of the Home Charges. This sum included one-half the cost of transporting troops to and from India (£ 130,000) and one-half the military charge for Aden (£ 72,000). The Congress and the Government of India were disappointed with the relief granted. The government of India protested to the Secretary of State that the £ 257,000 'falls far short of according to India the just and liberal treatment which was claimed for her'.⁵¹

The slight relief given on account of the Home Charges was more than offset by the decision to increase the pay of the British army. The increase, which ultimately meant an additional charge of £ 786,000 per annum on the Indian revenues, was unsuccessfully resisted by Lord Curzon's Government.⁵² A still further although temporary increase in the military expenditure occurred in 1904-05 and 1905-06 with the reorganization of the Indian Army. The reorganization involved an additional expenditure for India of £ 869,932 in India, and £ 1,401,933 in England. Altogether the net Indian military expenditure in England and India grew from £ 15,376,473 in 1899-1900 to £ 19,602,988 in 1908-09.⁵³

The history of India's economic relation with Great Britain generated at least as much nationalist indignation as the contemporary financial arrangements between the two countries. R. C. Dutt gave organized expression to the prevailing belief about the early period in *The Economic History of British India*. He rejected the notion that India's 'intense poverty' and 'repeated famines' could be explained by factors such as increasing population, drought, peasant improvidence, and alienation of land to the money-lender. The narrowing of India's sources of wealth was due to other reasons.

⁵¹ Indian Expenditure (Royal Commission). *Copy of Further Correspondence...* H. of C. 169 of 1902, No. 3, Government of India to Secretary of State, 6 June 1901.

⁵² East India (Liability for Increase in British Soldiers' Pay), *Return of the Correspondence...* H. of C. 237 of 1903.

⁵³ *Statistical Abstract...* 1899-1900 to 1908-09, pp. 68-9. In 1904, in the Governor-General's Legislative Council, the Military Member, Sir Edmond Elles, made a rather feeble attempt to prove the military expenditure was decreasing in proportion to revenue receipts, and not as Gokhale had alleged, increasing. To support this tendentious point, Elles selected as the starting point for his comparison the years 1896-97 to 1899-1900 when revenue was low due to famine and plague, and when military spending was high as a result of the Frontier Wars. Abstract of the Governor-General's Legislative Council Progs. Vol. LXIII, 30 March 1904, p. 625.

"India in the eighteenth century was a great manufacturing as well as a great agricultural country, and the products of the Indian loom supplied the market of Asia and of Europe. It is unfortunately, true that the East Indian Company and the British Parliament, following the selfish commercial policy of a hundred years ago, discouraged Indian manufacturers in the early years of British rule in order to encourage the rising manufacturers of England. Their fixed policy, pursued down the last decade of the eighteenth century and the first decades of the nineteenth, was to make India subservient to the industries of Great Britain, and to make the Indian people grow raw produce only, in order to supply material for the looms and manufactories of Great Britain. This policy was pursued with unwavering resolution and with fatal success; orders were sent out, to force Indian artisans to work in the Company's factories; commercial residents were legally vested with extensive powers over villagers and communities of Indian weavers; prohibitive tariffs excluded Indian silk and cotton goods from England; English goods were admitted into India free of duty or on payment of a nominal duty."⁵⁴

Four Western writers were often invoked in support of nationalist views. H. H. Wilson's continuation of Mill's *History of British India* was used to prove Indian textiles were kept out of British markets by prohibitive duties while India was prevented from protecting her own industry. "The foreign manufacturer employed the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have competed on equal terms". Had Indian goods not been kept out of England, "the mills of Paisley and Manchester would have been stopped in their outset, and could scarcely have been again set in motion, even by the power of steam".⁵⁵

⁵⁴ Dutt, *The Economic History of British India*, pp. vii—viii.

⁵⁵ "Mill's History of British India," Vol. VII.

The History of British India. From 1805 to 1835 (1845), I, Footnote, pp. 538-39, quoted by R. C. Dutt, *Economic History of British India*, pp. 362-63, and by P. M. Mehta, Industrial Exhibition of 1902, *Report of the 18th I.N.C.*, p. 160.

Robert Montgomery Martin⁵⁶ and Sir George Wingate⁵⁷ were quoted about the exaction of "Tribute" from India. Finally, Brooks Adams' view that plunder from India was instrumental in financing Europe's industrial revolution was accepted.⁵⁸

THE "MORAL DRAIN"

The portion of the Home Charges expended on pensions, furlough allowances, exchange compensation allowances, and on the employment of foreign agency in general, was objected to because it represented to nationalists both a denial of the promises of equality contained in the Queen's Proclamation of 1858 and an extravagant means of running the Government. The cost of foreign agency was higher than is sometimes realised. Probably in no other country in the world were civil servants paid so liberally. In Algeria, for instance, the highest judicial officer, the First President of the Court of Appeal, received £720 and a furnished house each year while the Chief Justice of Bengal earned £4,911, including exchange compensation allowance.⁵⁹ Other comparisons between French salaries in Algeria and British salaries in India reinforce this point.⁶⁰ In 1892 a Parliamentary Return was prepared showing the amount of money received from the revenues of India in 1889-90 by persons earning Rs. 1000 or more. In the following totals, sums paid in England have been converted from sterling into rupees at the rate of 1s. 4d.⁶¹

⁵⁶ *The Political, Commercial and Financial Condition of the Anglo-Eastern Empire*, in 1832 (1832).

The Indian Empire: History, Topography, Geology... 3 Vols. (1859?)

Cited by Naoroji, *Poverty and Un-British Rule in India*, p. VIII. Digby, 'Prosperous' *British India*, pp. XXI, 81; and R. C. Dutt, *The Economic History of British India*, pp. 289-90, 409-10.

⁵⁷ *A Few Words of the Financial Relations with India* (1859), p. 8. Cited by Naoroji, *op. cit.*, pp. VIII-IX, Dutt, *op. cit.*, pp. 419-20.

Dutt, *India in the Victorian Age*, pp. XVI, 214, 219.

⁵⁸ *Law of Civilisation and Decay: An Essay on History* (1896), Chap. X. Cited by Digby, *op. cit.*, pp. 31-33; also in Surendranath Banerjee's Presidential Address, *Report on the 18th I. N. C.*, p. 43.

The view of Brooks Adams is controverted by C. J. Hamilton, *op. cit.*, pp. 167-71.

⁵⁹ *India List and India Office List for 1902*, p. 174.

⁶⁰ Strachey, *India: Its Administration and Progress* (1903), p. 84, Note 1.

⁶¹ The actual rate of exchange for 1889-90 was 1s. 4d. 566d. R. C. Dutt (*Economic History of British India*, p. 444) converted the figures from the Parliamentary Return into sterling at the rate of 2s., thus exaggerating the amount received by Europeans.

Paid by the Government, 1889-90

Annual Salaries Paid to Europeans in India	Rs. 8,77,14,431
Absentee Allowances „ „ „	46,36,314
Pensions Paid to Europeans in India	23,28,882 ⁶²
Amount Paid to Europeans in England	5,56,60,170

Rs. 15,03,39,797

Paid by the Railway Companies, 1889-90

Amounts paid to Europeans in India	1,16,06,891
Amounts paid to Europeans in England	8,17,830

Rs. 1,24,24,721

Total Paid to Europeans from the Revenues of India, 1889-90

Rs. 16,27,64,518⁶³

Total Government Expenditure in England and India, 1889-90

Rs. 82,47,31,700

Dadabhai Naoroji called the exclusion of Indians from positions of responsibility India's 'moral drain'. By employing Europeans where Indians could perform the job, he said, the British Government was stunting the capabilities and intelligence of the Indians.^{63a} In 1900 Naoroji wrote to Lord Hamilton, the Secretary of State, hinting that if the pledges of equality were not honoured, India might 'under the persistence of the present evil bleeding fall from the British frying pan into the Russian fire or free itself from a destructive rule'.⁶⁴

In the Indian Legislative Council in 1904, Lord Curzon vehemently denied that Indians had received an inadequate share of the civil employment. He stated that in 1867 there had been 13,431 Government posts in India with a salary above Rs. 75, and of these, Europeans and Eurasians held 55 per cent. In 1903 the total number of posts was 28,278, of which only 42 per cent were held by Europeans and Eurasians. Curzon demonstrated the improvement of the Indian position in another way. He said that the aggregate pay of the European Government servants had increased by 6 per cent since 1867 while the pay of the 'Natives' had grown by 191 per cent.

⁶² Eurasian pensions are included in this figure.

⁶³ East India (Salaries) Return of the Number of all Persons who received from the Revenues of India, during the Year 1889-90, Annual Allowances....of which the amount was not less than 1,000 Rupees for each Person.

H. of C. 192 of 1892.

^{63a} Naoroji, *op. cit.*, pp. 56-58.

⁶⁴ Naoroji to Hamilton, 12 Oct. 1900. *Bengalee*, 4 June 1901.

Curzon thought that these and other figures he produced proved 'how honestly and faithfully the British Government had fulfilled its pledges, and how hollow is the charge which we so often hear of a ban of exclusion against the children of the soil... Will anyone tell me in the face of these figures that our administration is unduly favourable to the European or grudging to the native element? I hold, on the contrary, that it is characterised by a liberality unexampled in the world'.

Curzon rested his case largely on the unquestioned increase in the proportion of Indians in subordinate positions in the Civil Service. But it was the superior positions which Indians coveted, and Lord Curzon had definite views on the racial superiority of Europeans which disqualified all but a few Indians from holding these positions. Those few Indians who could proceed to England and pass the civil service examinations might be employed. But 'the highest ranks of civil employment in India... must nevertheless, as a rule be held by Englishmen, for the reason that they possess, partly by heredity, partly by upbringing, and partly by education, the knowledge of the principles of Government, the habits of mind, and the vigour of character, which are essential for the task, and that, the rule of India being a British rule, and any other rule being in the circumstances of the case impossible, the tone and standard should be set by those who have created and are responsible for it'.

Curzon believed that 'the greatest peril with which our administration is confronted' was 'the system under which every year an increasing number of the 900 and odd higher posts that were meant and ought to have been exclusively and specifically reserved for Europeans, are being filched away by the superior wits of the Native in the English examinations'. Curzon realised regretfully that the time had passed when a racial qualification could be placed on the entrance to the civil services. But the Government of India found a number of reasons for keeping Indians out of the higher posts in the Forest, Customs, Salt, Opium, Postal, Telegraph, Survey, Jail and Police Departments.⁶⁶ Apart from the necessity of sitting for the I. C. S. examination in India, there were other barriers to Indians. For

⁶⁵ Curzon to Hamilton, 23 April 1900, MSS. Eur. D. 51015.

⁶⁶ See Hon. Sec., Indian Association, to Sec., Govt. of India, Home Dept., 18 Dec. 1899. Enclosure to C. W. Bolton, Sec., Govt. of Bengal, to Govt. of India Home Dept., 9 March 1899, Dec. Prog. No. 236.

Also, J. P. Hewett, Sec., Govt. of India, to Sec., Govt. of Bengal, 20 Dec. 1900. Dec. Prog. No. 237, India Home Prog., Public Vol. 5874.

instance, the Post Office Department preferred to send Europeans to arrange postal services during military operations in China, Africa, and the North West Frontier. Again, in some areas of Assam and Bihar, travel could be done only with the assistance of the planters, and this ruled out Indians for assignments in these areas.⁶⁷ In the Preventive Branch of the Customs Department, Europeans were preferred because of their ability to withstand 'great exposure in all weather' and the need to enforce customs and port rules on European officers and sailors. Indians were not permitted to sit for Police Department Examinations in London. Most central and district jails were run by medical officers,⁶⁸ and the Indian Medical Service was open only to those persons 'registered in the United Kingdom under the Medical Acts'.⁶⁹ Other Departments needed Europeans because Indian performances had not 'been found to be altogether satisfactory' because of 'the high standard of scientific accuracy' required, 'the rough and solitary life', the poor quality of Indian applicants, the need for 'energy and physical capacity'.⁷⁰

G. Subramania Iyer contributed an article to the *Hindustan Review and Kayastha Samachar* in which he contradicted Lord Curzon's statement that Europeans were not unduly favoured in the civil service.⁷¹ Using the same figures as Curzon had, Iyer proved that the number of posts carrying salaries of Rs. 1,000 or above which were held by Europeans and Eurasians had increased more between 1867 and 1903 than the number held by Indians. The increase in the Public Works Department for Europeans and Eurasians had been 133, for Indians 11; the increase in the Land Revenues Department for Europeans and Eurasians had been 95, for Indians, 19; in the Medical Department (Civil) the increase had been 95 and 6, respectively; in the State Railways, 95 and 0, respectively. In only one Department the Judicial—had the number of Indians holding positions with salaries over Rs. 1,000 gained more than the number of Europeans

⁶⁷ A. U. Fanshawe, Dir.-Gen. of Post Office of India, to Sec., Govt. of India, Finance and Commerce Dept., 25 April 1898, Oct. Prog. No. 290, India Home Prog., Public, Vol. 5640.

⁶⁸ J. P. Hewett to Sec., Govt. of Bengal, 20 Dec. 1900, *op. cit.*

⁶⁹ Gov. Gen. in Council of Sec. of State, 13 Oct. 1898, Oct. Prog. No. 168, India Home Prog., Public Vol. 5414.

⁷⁰ J. P. Hewett to Sec., Govt. of Bengal, 20 Dec. 1900, *op. cit.*

⁷¹ G. Subramania Iyer 'Employment of Indians in the Public Service—Fiction and Fact.'

Hindusthan Review and Kayastha Samachar, Vol. X, No. 4 (Oct. 1904), p. 327.

and Eurasians. Taking the total net increases of all such positions between 1867 and 1903, the Europeans and Eurasians increased their share by 591, Indians by 84.⁷²

In conclusion, it may be said that an important part of the background to the disorders beginning in 1905 was the firm rejection of two of the major demands of the Indian National Congress. The Congress had asked for a vast reduction of the Home Charges ; instead India was relieved of only £ 257,000. The Congress had demanded the Indianization of the civil services ; Lord Curzon, in reply, gave an unqualified, and perhaps unparalleled, public assertion of the racial basis of employment in the higher positions of the Civil Service.

⁷² These figures are compiled from the Tables appended to *ibid.*, pp. 330-44.

RATE OF PUBLIC INVESTMENT IN INDIA, 1898-1938

M. J. T. Thavaraj

The years 1898-1938 in Indian history are characterized by considerable public investment. Dr. Thavaraj's analysis of the trends in the rate of public investment provides an explanation as to why public investment in India in this period could not initiate a process of sustained economic development in India. The years, 1914-1919, have not been included in this study.

PART I

The period under study in this paper can be broadly divided into two : (a) the pre-war period (1898-99 to 1913-14), and (b) the inter-war period (1919-20 to 1937-38). The following table gives the totals of gross and net investment on public account during these two periods, as also the annual averages :

* A summary of this article is contained in the paper "Capital Formation in the Public Sector in India: A Historical Study 1898-1938", contributed by the author to the First Indian Conference on Research in National Income.

Table I¹
GROSS AND NET PUBLIC INVESTMENT IN INDIA

(Figures in Crores of Rupees)

Period	Gross Investment		Net Investment	
	Total	Annual Average	Total	Annual Average
(i) Pre-war period (1898-1914)	470	28	314	20
(ii) Inter-war period (1919-1938)	1083	57	626	33
	1553	44	940	27

¹ In the whole of this study the sources of date are as follows, unless otherwise indicated:—

- (a) Financial Statements of the Government of India.
- (b) Budgets of the Provincial Governments.
- (c) Accounts of the Municipalities, District Boards and other local bodies as given in the Statistical Abstract of British India.

It will be seen that the annual average of gross public investment went up from Rs. 29 crores in the pre-war period to nearly double that figure in the inter-war period. But the increase in the annual average of *net* public investment was somewhat lower. Of the gross public investment of Rs. 470 crores in the pre-war period, about Rs. 156 crores went towards the maintenance of the stock of public capital already in existence, and so the net public investment in this 16-year period was of the order of Rs. 314 crores. The corresponding figure for net public investment in the inter-war period, covering 19 years, was only Rs. 626 crores. Thus the average *annual* rate in the latter period was not more than about 70 percent higher than in the pre-war period.

This indicates that the magnitude and the average rate of capital consumption on public account in the inter-war period was relatively larger than in the pre-war period. This was partly due to the natural increase in depreciation arising out of the growing stock of public capital and partly due to the tendency to allow a higher rate of replacement and renewals in the immediate post-war years to compensate for the arrears of expenditure under this head during the First World War. It must, however, be remembered that both the gross and the net public investment throughout the period under study are expressed in current prices and not at constant prices. In the absence of any reliable index of prices for investment goods, it is impossible to express the magnitudes of public investment at constant prices, but it is clear that, in view of the higher prices prevailing in the twenties, the difference in the average annual rates of investment between the two periods may not be so striking as it appears when expressed in terms of current prices.

Rate of Public Investment as proportion of National Income and Rate of Public Expenditure :

It would be interesting, if it were possible, to relate public investment to overall investment in the economy as well as to changes in the national income. But data regarding private investment are inadequate, and the available national income estimates for the period are also neither comparable nor very reliable. According to an estimate made by Lord Curzon² in

² Lord Curzon, Governor General and Viceroy in India. Refer "Long-term Trends in Output in India", by Daniel Thorner in "Economic Growth: Brazil, Japan, India", edited by S. KUZNETS, p. 107.

1901, the national income of British India during 1897-98 was placed at about Rs. 675 crores. Assuming that the actual national income in 1898-99 might have been anywhere between Rs. 500 crores and Rs. 800 crores, the gross public investment can be said to have been of the order of 2.0 to 3.3 per cent of national income, and the net public investment roughly about 1.4 to 2.1 per cent of the national income. Mention may also be made of the estimate made by Messrs. Wadia and Joshi who placed the national income of British India in 1913-14 at about Rs. 1087 crores.³ If again, allowing for a safe margin, we could presume that the actual national income might have been anywhere between Rs. 800 crores and Rs. 1200 crores, it would appear that the gross public investment in that year would have constituted about 3.8 to 5.5 per cent of the national income, and the net public investment roughly about 2.5 to 4.0 per cent of the national income. These figures suggest as well as net public investment in India accounted for a growing proportion of the national income over the pre-war period.

As for the inter-war period, according to an estimate made by Messrs. Shah and Khambata,⁴ the national income of India in 1921 amounted to about Rs. 2364 crores. Assuming that the actual figure might have been somewhere between Rs. 2200 and Rs. 2500 crores, it would seem that, while the gross public investment in that year was about 3.2 to 3.6 per cent of the national income, the net public investment was only about 1.0 to 1.2 per cent of the national income.

The first systematic attempt to make a scientific estimate of the national income in British India was undertaken by Dr. V. K. R. V. Rao, who placed the national income of British India in 1931-32 at between Rs. 1689 crores and Rs. 1868 crores, or Rs. 1766. 6 per cent.⁵ Subsequently, Dr. R. C. Desai has made an estimate of the consumer expenditure in India for a period of 10 years from 1931-32 to 1940-41.⁶ On the basis of these two estimates, Mr. G. S. Gowri has prepared a continuous series from 1931-32 to 1940-41, corrected for coverage and for reliability, and expressed in terms of current as well as constant

³ Messrs. Wadia & Joshi: "*Wealth of India*", Pp. 97-112.

⁴ Shah & Khambata: "*Wealth and Taxable Capacity of India*". This estimate was made for the whole of India including the Native States.

⁵ Dr. V. K. R. V. Rao: "*The National Income of British India 1931-32*" (1940), Pp. 185-186.

⁶ Desai (R. C.): "Consumer Expenditure in India, 1931-32 to 1940-41"; *Journal of the Royal Statistics Society*, CXI, Part IV (1948); Pp. 261-307.

prices (1938-39 being taken as the base year for the latter).⁷ On the basis of these estimates the figures of gross and net public investment in India, and the proportion they formed of the national income, in the nineteen thirties are shown in Table II.

Table II⁸

RATIOS OF GROSS AND NET PUBLIC INVESTMENT TO THE NATIONAL INCOME

Years	Gross Public Investment	National Income corrected for coverage and reliability	Percentage of (2) to (3)	Net Investment	Percentage of (5) to (3)
(1)	(2)	(3)	(4)	(5)	(6)
1931-32	48.8	1647.3	3.0	22.7	1.3
1932-33	33.8	2127.7	1.5	7.3	0.4
1933-34	33.4	2037.7	1.6	7.3	0.3
1934-35	35.0	2003.7	1.4	8.2	0.4
1935-36	43.6	1979.1	2.2	17.9	0.9
1936-37	35.9	2064.1	1.8	9.5	0.5
1937-38	35.8	2112.1	1.7	10.0	0.5

It will be seen that while, in 1931-32, the gross and the net public investment in India bear more or less the same ratio to the national income as it did in 1921-22, there was a serious decline over the rest of the period. In 1937-38, the gross and the net public investment accounted for only about 1.7 and 0.5 percent respectively of the national income.

It would, therefore, appear that (i) public investment accounted for a relatively larger proportion of the national income in the pre-war period than in the inter-war period, and (ii) whereas, over the pre-war period, the ratios of the gross as well as the net public investment to the national income registered steady increases, these ratios tended to decline over the inter-war years. It could be argued that, while in the pre-war period, public investment formed a larger proportion of the total capital for-

⁷ Gowri (G. S.): "National Income Estimates in India 1931-41"; *Indian Economic Journal*, July 1954 (Vol. II, No. 1).

⁸ While the figures for gross and net public investment in India exclude those of the Native States, the figures for National Income are for the whole of India excluding Burma.

mation in India, the share of private investment gradually increased over the inter-war period but nothing precise or definite can be said about this since there are no estimates available of private investment over these two periods.

Let us now proceed to examine the relationship between gross public investment and gross public expenditure over the period under study :—

Table III
RELATION OF GROSS PUBLIC INVESTMENT TO GROSS PUBLIC
EXPENDITURE IN INDIA

	(Figures in Crores of Rupees)		
	Gross Public Investment	Gross Public Expenditure	Percentage of (1) to (2)
	(1)	(2)	(3)
Annual Average in the Pre-war period ..	29	122	24.0
Annual Average in the Inter-war period ..	57	278	20.5

It will be seen that, on the average, gross public investment in the pre-war period constituted above 24 per cent of the gross

public expenditure in the same period ; this share declined to about 20.5 per cent in the inter-war period.

Further, it can be seen from Table IV that, except for a slight set-back during 1908-09 to 1911-12, the share of gross public investment in the gross public expenditure rose steadily over the pre-war period, the ratio increasing from about 18 per cent in 1898-99 to about 28 per cent in 1913-14. On the other hand, one can notice a rising and declining phase in this ratio over the inter-war period. In the first phase the ratio of gross public investment to gross public expenditure tends to increase from about 20 per cent in 1919-20 to nearly 27 per cent in 1927-28 (this maximum is, incidentally, lower than that reached in the pre-war period). In the second phase, however, the proportion declines from about 27 per cent in 1927-28 to about 13 per cent in 1933-34, the lowest ratio ever reached throughout the period under study. Though there was some improvement in the ratio after 1933-34, it was far below the level reached in 1927-28.

We may, therefore, conclude that (i) on an average, the annual rate of gross public investment was bearing a higher portion to the gross public expenditure in the pre-war period than in the inter-war period ; (ii) while, on the whole, the ratio of gross public investment to gross public expenditure was steadily increasing over the pre-war period, the trend was the other way round in the inter-war period ; and (iii) impact of the economic depression in the 'thirties was greater on public investment than on current public expenditure.

Thus, it is clear that, whether expressed as a ratio of national income or of the gross public expenditure, gross public investment was steadily increasing over the pre-war period, but that it tended to be unsteady over the inter-war years.

Trends in the Rate of Public Investment and other related variables.

The trends in the rate of gross and net public investment can be seen in more detail, from Table V as well as from Chart I. The trends in the gross public investment in the pre-war period as well as in the inter-war period, as determined by the Straight Line and the Least Square Methods, are also given in Chart II.

As for the magnitudes involved, it will be seen that the rate of gross public investment increased by about 2.8 times over the pre-war period (increasing from about Rs. 16.5 crores in 1898-99 to about Rs. 44.9 crores in 1913-14), but it registered a fall of about 30 per cent over the inter-war period (declining

from about Rs. 50.4 crores in 1919-20 to about Rs. 35.8 crores in 1937-38).

The Indian economy during the period under study was predominantly agricultural in character and specialising in commodities for export. For this reason, it was affected considerably by the vagaries of the monsoons and by foreign market conditions. The fluctuations caused by these affected, in turn, the revenues of the Government and, therefore, the volume of public savings available for investment. Public investment, however, was not necessarily limited by the volume of public saving, and could well have been used to offset the other fluctuations. We shall, therefore, go on to examine the nature of the relationship between four variables during the period under study viz., (i) the trends in gross public investment, (ii) trends in gross public saving, (iii) the trends in the value of exports, and (iv) the trends in the value of agricultural output.

As can be seen from Table VI, except for the widespread famine of 1899-1900 and the drought and depression of 1908-09, pre-war period can be characterised as one of expanding output and trade. This prosperity helped to improve the finances of the State and to increase the volume of public saving. Several commissions and committees appointed by the Government during this period recommended various extensions in public investment, but it was the growth in public saving which enabled the Government to undertake these extensions.¹¹ Thus the general economic prosperity, as registered in the improved finances the State, was a material factor in the steady increase rate of public investment over the pre-war period.

- ¹¹ (a) Famine Commission Report of 1898 that declared that "greater protection will be afforded by the extension of irrigation works", p. 330 (*Report*).
- (b) Famine Commission Report of 1901 recommended an increase in a rolling stock of the railways besides "the extension of the 'productive' and 'protective' irrigation works. *Report* 1901, p. 79.
- (c) On the basis of Robertson's Report of 1903, the Railways Board was created in 1905 which prepared a plan for an annual net investment in the railways of about Rs. 15 crores for 1903-09 to meet the deficiency in the rolling stock.
- (d) The MacKay Committee Report of 1907 proposed an annual rate of investment of £14 million (Rs. 21.0 crores) on public works of which Rs. 18.75 crores was to be spent on railways, the remaining being allotted to irrigation. *Report*: p. 14.

Table IV

RATIO OF THE GROSS PUBLIC INVESTMENT TO
THE GROSS PUBLIC EXPENDITURE IN INDIA
(Figures in Crores of Rupees)

Years	Gross Public Investment	Gross Public Expenditure	Percentage of (1) of (2)
	(1)	(2)	(3)
1898-99	16.48	92.30	17.9
1899-00	16.13	94.84	17.0
1900-01	18.42	102.21	18.2
1901-02	19.78	97.90	20.0
1902-03	22.75	105.80	21.5
1903-04	23.89	108.94	22.0
1904-05	26.14	116.18	22.5
1905-06	32.90	125.20	26.5
1906-07	32.25	126.75	25.5
1907-08	37.45	133.30	28.1
1908-09	36.38	136.04	26.4
1909-10	30.99	128.44	24.1
1910-11	36.00	136.17	26.5
1911-12	35.19	140.66	25.0
1912-13	39.62	147.92	26.5
1913-14	44.93	160.01	28.1
1919-20	51.41	256.97	20.0
1920-21	67.39	291.13	23.2
1921-22	70.95	294.49	24.1
1922-23	66.05	285.15	23.2
1923-24	61.91	275.80	22.5
1924-25	55.59	267.88	20.8
1925-26	64.37	284.41	22.6
1926-27	73.50	300.91	24.4
1927-28	82.68	305.14	27.1
1928-29	75.03	304.10	24.7
1929-30	81.44	317.78	25.6
1930-31	67.01	307.24	21.8
1931-32	48.80	278.36	17.5
1932-33	33.76	248.76	13.6
1933-34	33.40	250.33	13.3
1934-35	35.04	251.91	13.9
1935-36	43.69	263.06	16.6
1936-37	35.88	252.35	14.2
1937-38	35.80	247.82	14.5

Table V

(Figures in Crores of Rupees)

Years	Gross Investment	Depreciation	Net Investment
1898-99	16.48	5.68	10.00
1899-00	16.13	6.06	10.07
1900-01	18.62	6.59	12.03
1901-02	19.58	7.29	12.29
1902-03	22.75	7.84	14.91
1903-04	23.89	8.50	15.39
1904-05	26.14	8.80	17.34
1905-06	32.91	9.19	23.71
1906-07	32.25	10.04	22.21
1907-08	37.45	10.95	26.50
1908-09	36.38	11.56	24.81
1909-10	30.99	11.28	19.86
1910-11	36.00	11.62	24.38
1911-12	35.19	12.30	22.80
1912-13	30.62	12.38	26.24
1913-14	44.93	14.47	30.46
1919-20	50.41	19.75	31.66
1920-21	67.39	22.08	45.31
1921-22	70.95	25.74	45.21
1922-23	66.05	24.00	41.85
1923-24	61.91	18.09	43.82
1924-25	55.59	21.14	34.45
1925-26	64.37	21.53	42.84
1926-27	73.50	22.65	50.85
1927-28	82.68	23.57	59.11
1928-29	75.03	23.65	51.38
1929-30	81.44	26.41	55.03
1930-31	67.01	26.52	40.49
1931-32	48.00	26.07	21.93
1932-33	33.76	26.44	7.32
1933-34	33.40	26.08	7.32
1934-35	35.04	26.86	8.18
1935-36	43.59	25.74	17.85
1936-37	35.88	26.38	9.50
1937-38	35.80	25.73	10.07

*As Burma was separated from India since 1936-37, the figures for 1936-37 and 1937-38 do not include that of Burma. This is so with regard to all the tables given in this study unless otherwise stated.

Table VI

RELATION BETWEEN GROSS PUBLIC INVESTMENT, GROSS PUBLIC SAVING, VALUE OF EXPORTS AND VALUE OF AGRICULTURAL OUTPUT AT CURRENT PRICES

Years	Gross Public Investment	Gross Public Saving	Value of Exports ¹	Value of Agricultural output at current prices ²
(1)	(2)	(3)	(4)	
1898-99	16.47	19.76	117.21	640.0
1899-00	16.13	17.96	114.04	600.0
1900-01	18.62	17.56	118.65	642.5
1901-02	19.58	27.19	147.04	669.4
1902-03	22.75	24.36	159.90	693.3
1903-04	23.90	27.51	201.37	782.0
1904-05	26.14	27.41	200.14	899.9
1905-06	32.91	26.02	181.19	963.6
1906-07	32.25	27.93	171.08	957.3
1907-08	37.45	27.38	164.92	851.6
1908-09	36.38	20.19	143.09	946.4
1909-10	30.99	29.14	195.64	963.0
1910-11	36.00	36.73	221.39	1015.9
1911-12	35.19	37.10	222.24	1100.9
1912-13	39.62	43.22	228.00	1067.0
1913-14	44.93	35.95	217.70	1140.9
1919-20	51.41	26.85	156.92	1850.7
1920-21	67.39	22.59	123.29	1330.9
1921-22	70.95	12.46	126.55	1622.7
1922-23	66.05	28.95	175.09	1404.9
1923-24	61.91	41.04	223.86	1271.4
1924-25	55.59	53.04	234.01	1636.4
1925-26	64.37	51.17	228.46	1584.0
1926-27	73.50	46.47	200.77	1479.1
1927-28	82.68	52.56	213.63	1415.5
1928-29	75.03	47.95	211.68	1457.3
1929-30	81.44	46.73	206.26	1343.5
1930-31	67.01	20.58	195.11	880.8
1931-32	48.80	21.92	176.45	783.5
1932-33	33.71	36.22	159.97	751.3
1933-34	33.40	30.94	184.15	702.6
1934-35	35.04	40.03	187.55	782.1
1935-36	43.59	39.99	188.85	820.1
1936-37	35.88	43.20	210.15	911.9
1937-38	35.80	45.02	187.52	843.6

¹ Dr. Meek's Paper on "Some Measures of Economic Activity in India," *Journal of the Royal Statistical Society*, Part III, 1937, p 376 and Y. S. Pandit's "India's Balance of Indebtedness," p 47.

² Paper read by Mr. Sivasubramanian at the "Preliminary Conference on National Income" held in January 1957, India.

On the other hand, the inter-war period was characterised by unstable exchanges, fluctuating foreign trade, decline in output, and disturbed price levels. These fluctuations in the post-war years, and particularly during the depression of the 'thirties' caused considerable fluctuations also in the rate of public investment. Even the separation of the railway finance from the general finances, the transfer of 'irrigation' and 'civil works' to the provincial governments, and the reconstitution of the accounts of the Posts and Telegraphs Department on a commercial basis could not ensure the continuous and rapid progress of public investment during this period.

If we work out the mathematical correlation (multiple correlation) between the four variables given in Table VI, keeping public investment as the dependent variable, we shall find a high degree of correlation, which works out to be about 0.9393 for the pre-war period and about 0.7188 for the inter-war period between the trends in the rate of gross public investment and the other three variables. Taken separately, in the pre-war period, the correlation between the trends in gross public investment and in gross public saving is 0.723 ; that between gross public investment and the value of exports is 0.727 ; and that between the gross public investment and the value of agricultural output at current prices is 0.927. In the inter-war period, the corresponding values were 0.0802 ; 0.1190 ; 0.692 respectively. In other words, we find a low degree of correlation between (i) the trends in the gross public investment and that of the trends in the gross public saving, and (ii) between the trends in the gross public investment and that of the trends in the value of exports. Nevertheless, a high degree of correlation can be observed (i) between the trends in the gross public investment and that of the trends in the value of agricultural output, and (ii) between the trends in the value of exports and the trends in the gross public saving, so that the combined effect of all the independent variables on the trends in the gross public investment shows a fairly high degree of correlation even in the inter-war period.

Fluctuations in the Pre-war and Inter-war Periods :

There were, of course, minor fluctuations in public investment even in the pre-war period. A closer look at this period shows that it falls broadly into four sub-periods from this point of view :—

- (i) 1898-1902—Period of slow growth.
- (ii) 1902-1908—Period of rapid growth.
- (iii) 1908-1910—Period of depression.
- (iv) 1910-1914—Period of recovery and further growth.

In sub-period (i), the widespread famine and drought of 1899, and the consequent decline in agricultural output and in the value of trade, caused on the one hand a slight fall in public revenue (through remission of taxes and reduction of the profits of the public undertakings) and, on the other, an increase in current public expenditure (mainly on account of famine relief). This reduced the volume of public saving which in turn led to some slashing of outlay on public investment in 1899-1900¹². Consequently, the progress of public investment in this period was rather slow.

But, in the following period (1902-08), there was all-round business prosperity and favourable monsoons. The local scarcities, which occurred during 1906-07 in parts of North India, did not upset the upward trend in economic activity. This increased activity augmented public saving (by increasing the tax proceeds and the trading surpluses of the commercial departments), and enabled the State to step up the rate of public investment. Thus, public investment increased from about Rs.22.8 crores in 1902-03 to about Rs. 37.5 crores in 1907-08.

The prosperity of these six years was not sustained in the subsequent period, viz., during 1908-10, when the impact of the world-wide depression of 1908-09 made itself felt in the export sectors of the Indian economy¹³. This, accompanied by the crop failures and local scarcities caused by irregular monsoons, resulted in the shrinkage of public saving, which again led to a cut in the rate of public investment. Though more borrowing was resorted to during this period, the receipts from this source were able to offset only partially the decline in public saving. The cut in public investment was particularly sharp in 1909-10.

The period of depression was followed by a period of rapid recovery and further progress. The stimulus received through

¹² Throughout the pre-war period public saving provided as much as 95% of the finances required for public investment. Since, during difficult years, the decline in the public saving was not adequately compensated by either net increases in the liabilities or depletion of cash reserves, the movements in public saving affected, in general, the trends in public investment. In the inter-war period, however, this close correlation was absent due to the diminished importance of public saving as a source of finance. This point is brought out in Chapter VI.

¹³ For instance, the depression in the U.S.A. adversely affected the jute trade in India.

the recovery and growth of external trade, coupled with internal factors like favourable monsoons, bumper harvests etc., augmented the tax and non-tax revenues of the State and enabled it to raise the rate of public investment to levels which, during the last two years of the pre-war period, surpassed all previous records.

As to the net investment over the period 1898-1914, the trends were more or less the same, except that the upward movements were relatively milder and the downward movements relatively sharper than in the case of the gross public investment. The trends in gross and net investment corresponded, in turn, fairly closely to the trends in general economic activity induced by favourable monsoons, foreign market conditions, exchange rates, etc. The link between general economic activity and public investment was largely through the impact of the former on public saving. As we have indicated earlier, public saving was the major source of finance for public investment during this period.

In the inter-war period, the fluctuations in public investment were both more frequent and more violent, as compared with the pre-war period. For a closer analysis of the underlying factors, these nineteen years can be broken down into five sub-periods :—

- (i) 1919-22—Period of sharp increase in public investment.
- (ii) 1922-25—Period of recession.
- (iii) 1925-30—Period of rapid recovery and further progress.
- (iv) 1930-34—Period of sharp decline.
- (v) 1934-38—Period of mild recovery.

Sub-period (i) witnessed a tremendous increase in the rate of public investment. From a level of around Rs. 44.9 crores in 1913-14, it rose to about Rs. 71.0 crores in 1921-22. This was largely due to the pent-up demand for replacements and for expansion accumulated in the course of the First World War.

Despite the trade boom during the years 1919-21, and the reasonably good monsoons which characterised the major part of this period, public saving did not increase by any significant extent on account of the enormous increase in the current expenditures of the government (particularly on defence). Public

saving, therefore, became during this period a less important factor in the financing of public investment than before the War. Public investment began to be financed increasingly from other sources. Consequently, even the passing away of the trade boom in 1921-22 did not stop the general tendency for public investment to go up, though it had a dampening effect on its tempo and pace. The magnitude of public investment during this period was governed largely by the urgent requirements of public undertakings.

A drastic decline in foreign trade (following the sharp recession after the post-war boom), deterioration in the foreign exchanges, unfavourable monsoons, and labour and political unrest resulted, however, in a downward trend in the rate of public investment after 1922. It went down from the level of Rs. 71.0 crores reached in 1921-22 to about Rs. 55.6 crores in 1924-25. The deepening and the broadening of the tax-structure which had been undertaken following the recommendations of the Taxation Enquiry Commission of 1924, and retrenchment in current in public expenditure, had meanwhile brought about an improvement in the volume of public saving. But the inflationary tendencies, released by deficit financing resorted to in the earlier period, did not permit any further net increases in short-term liabilities (particularly through the issue of the Treasury Bills), and public saving by itself proved inadequate to sustain the level of public investment reached in 1921-22. Thus, during this period, in contrast to the earlier, the rate of public investment declined alongside improvement in the rate of public saving.

The period, 1925-30, was one of mild boom which witnessed a gradual recovery of external trade, stable exchanges and favourable weather and crop conditions, though the increase in the value of exports and of agricultural output was not impressive. But, on the whole, the rate of public saving remained almost stationary over the period. On the other hand, the rate of public investment registered significant advances over the period, touching the peak level of about Rs. 82.7 crores in 1927-28, though a slight decline can be noticed in the subsequent years. Thus, again, there was no clear relationship between the trends in public saving and the trends in gross public investment. The short-fall in public saving was, in the main, covered by net increases in the liabilities of the Government.

The crisis of 1929 precipitated by the economic collapse in the United States engulfed the Indian economy very rapidly in the world economic depression. The impact of this was reflected in a sharp decline in the volume and value of external trade, depressed prices all round, unstable exchange rate, and declining agricultural output. These, in turn, led to a contraction in the rate of public saving as well as in the rate of public investment. The latter touched the rock bottom in 1933-34, accounting for only about Rs. 33.4 crores as compared to Rs. 82.7 crores in 1927-28.

This rate of gross public investment in 1933-34 was much less than that of 1913-14. The decline in the rate of net investment is even more striking. While this rate was about Rs. 56 crores in 1929-30, the corresponding figure for 1933-34 was only about Rs. 7.3 crores. In other words, the rate of net public investment fell to about $\frac{1}{8}$ of what it was in 1929-30. It is also interesting to note that the rate of net public investment in 1933-34 was Rs. 3.5 crores less than what it was even in 1898-99, i.e., at the beginning of the pre-war period.

The process of recovery from the depression proved to be extremely difficult. Improvement in the rate of public saving was very slow, and the Government, affected by the general depression psychology, did not also undertake any significant borrowing for financing public investment. Thus the rate of public investment in 1935-36 was still not more than about Rs. 43.6 crores.

Fluctuations in Public Investment: An analysis agency-wise and category-wise

We shall now proceed to analyse the sectors in which the fluctuations in public investment registered themselves most sharply and examine the factors responsible. Such an analysis would necessitate the distribution of the gross public investment in India under the various agencies responsible for public investment during this period as well as under the major items of investment.

In this context it should be remembered that Provincial Governments were empowered to undertake public investment on a large scale only after the Government of India Act of 1919 by which a devolution of powers was brought about and certain subjects like irrigation, civil works, forests, power, agriculture, public health and sanitation were transferred as provincial

subjects from 1920-21. This list was further enlarged under the Government of India Act of 1935.

As is shown in Table VII and Chart III, public investment through the Municipal governments and the District and other local bodies were relatively small in magnitude and there was also very little fluctuation in the investments undertaken by them over the period under study. Though the magnitude of the investments undertaken, and of the fluctuations involved, were reasonably larger in the case of the Provincial Governments, the profits accruing from irrigation helped some provinces to tide over periods of financial difficulties without resorting to serious cuts in the investments undertaken by them. On the other hand, despite the fact that the Central Government was vested with certain lucrative sources of revenue, like the Customs and the Excise duties, as well as the power to borrow on a large scale from within and outside the country, the trends in the investments undertaken by them were very irregular due to the serious fluctuations in public saving, particularly in the trading surpluses arising from the railways. This explains to a large extent why the fluctuations in investments were more pronounced and more frequent in the case of those undertaken by the Central Government than in those undertaken by other agencies.

In order to isolate the particular items, in which fluctuations were most violent, it is necessary to distribute public investment under the major heads. This is done in Table VIII. As will be evident from Chart IV, investment in the railways suffered from more violent and frequent fluctuations than other forms of public investment both in the pre-war as well as in the inter-war periods. Irrigation was the only item which registered almost uninterrupted progress throughout the pre-war period, though in the inter-war period, its progress also was very much impeded during the great depression of the thirties. The same is more or less true in the case of roads, public buildings and of the commercial monopolies like opium, mint etc.

The fluctuations in the investment in railways were far more serious and violent in the inter-war period. As the Acworth Committee¹⁴ pointed out, this was primarily due to the doctrinaire adherence of the Finance Member to the policy of balanced budgets. Constrained to economise during bad years, the Finance Member could neither cut down the Army or the Civil Service at short notice ; nor could he refuse to meet the wages or other current expenses connected with the railways. The only

¹⁴ *Acworth Committee Report*, 1921, Pp. 20-21.

Table VII

**TRENDS IN PUBLIC INVESTMENT IN INDIA
DISTRIBUTED UNDER VARIOUS GOVERNMENTS**

Years	Central Government	Provincial Government	Municipal Government	District and Local Bodies	Total (1) to (4)
	(1)	(2)	(3)	(4)	(5)
1898-99	14.53	...	0.73	1.22	16.48
1899-00	14.15	...	0.75	1.23	16.13
1900-01	16.60	...	0.78	1.24	18.62
1901-02	17.45	...	0.86	1.27	19.58
1902-03	20.35	...	1.02	1.38	22.75
1903-04	21.42	...	1.04	1.43	23.89
1904-05	23.51	...	1.14	1.49	26.14
1905-06	29.97	...	1.19	1.75	32.91
1906-07	29.28	...	1.15	2.02	32.25
1907-08	34.23	...	1.21	2.01	37.45
1908-09	33.00	...	1.28	2.10	36.38
1909-10	27.39	...	1.52	2.08	30.99
1910-11	32.28	...	1.70	2.02	36.00
1911-12	31.37	...	1.62	2.20	35.19
1912-13	35.32	...	1.93	2.37	39.62
1913-14	39.85	...	2.33	2.75	44.93
1919-20	45.91	...	2.20	3.30	51.41
1920-21	48.17	12.78	2.76	3.68	67.39
1921-22	46.85	17.51	3.39	3.20	70.95
1922-23	40.96	18.29	3.76	3.04	66.05
1923-24	36.33	18.15	4.25	3.18	61.91
1924-25	30.39	17.94	4.14	3.12	55.59
1925-26	36.30	20.79	3.67	3.61	64.37
1926-27	43.80	22.06	3.52	4.12	73.50
1927-28	51.80	23.18	3.50	4.20	82.68
1928-29	42.82	24.56	3.61	4.04	75.03
1929-30	50.95	23.34	3.42	3.73	81.44
1930-31	36.15	23.50	3.50	3.86	67.01
1931-32	22.62	20.03	2.86	3.29	48.80
1932-33	13.22	14.82	2.64	3.08	33.76
1933-34	12.36	15.23	2.61	3.20	33.40
1934-35	16.38	12.56	2.73	3.37	35.04
1935-36	23.50	13.56	2.95	3.57	43.59
1936-37	14.98	14.48	2.93	3.49	35.88
1937-38	15.54	13.73	3.06	3.47	35.80

Table VIII

TRENDS IN PUBLIC INVESTMENT IN INDIA
DISTRIBUTED UNDER THE MAJOR ITEMS

(Figures in Crores of Rupees)

Years	Railways	Irrigation	Roads and Buildings	Others	Total
1898-99	7.47	2.00	5.62	1.39	16.48
1899-00	6.34	2.39	5.91	1.49	16.13
1900-01	8.37	2.41	5.87	1.97	18.62
1901-02	8.78	2.42	6.66	1.72	19.58
1902-03	10.64	2.69	7.58	1.84	22.75
1903-04	10.88	2.74	8.20	2.07	23.89
1904-05	13.26	2.70	8.34	1.84	26.14
1905-06	18.46	3.17	9.25	2.03	32.91
1906-07	16.70	3.55	9.82	2.18	32.25
1907-08	21.36	3.73	10.46	1.90	37.45
1908-09	20.46	4.01	10.21	1.70	36.38
1909-10	15.60	4.04	9.85	1.50	30.99
1910-11	19.56	4.34	10.52	1.58	36.00
1911-12	17.02	4.34	11.77	1.56	34.69
1912-13	20.33	4.73	13.08	1.48	39.62
1913-14	23.06	4.87	15.58	1.42	44.93
1919-20	25.56	5.48	19.80	2.57	51.41
1920-21	38.10	2.88	22.27	4.14	67.39
1921-22	36.45	4.57	25.08	4.84	70.95
1922-23	32.22	5.89	24.45	3.49	66.05
1923-24	28.04	7.01	23.95	2.91	61.91
1924-25	21.39	7.71	22.79	3.70	55.59
1925-26	27.23	9.66	23.03	4.45	64.37
1926-27	35.28	9.93	24.26	4.03	73.50
1927-28	43.44	10.34	24.52	4.38	82.68
1928-29	34.96	11.42	24.61	4.04	75.03
1929-30	41.95	10.91	24.56	4.02	81.44
1930-31	24.61	10.48	27.00	4.92	67.01
1931-32	4.84	9.46	19.47	4.91	48.80
1932-33	6.42	7.16	16.09	4.09	33.76
1933-34	6.03	6.07	18.87	2.43	33.40
1934-35	8.95	5.53	16.82	3.74	35.04
1935-36	11.77	5.79	17.94	8.09	43.59
1936-37	8.16	5.62	18.88	3.22	35.88
1937-38	8.59	4.98	18.63	3.00	35.20

avenue open to him was, therefore, to cut down drastically the expenditure on new works and on extension of railways, even though they might be in the process of execution. On the other hand, when in any year the general financial position unexpectedly improved, the Finance Member, with equal suddenness, lifted his hand and encouraged the railways to spend more freely. In fear of the guillotine of 'lapse' which descended towards the end of the financial year, the railways spent these increased allocations in haste with inadequate staff and hurriedly collected materials.

The sporadic nature of investments and the wastage of resources involved in such a procedure was the result of the inclusion of the Railway Finance as part of the fabric of General Finances of the Government of India. By this arrangement, a loss in the working of the railways in any year was borne by the tax-payer, and a gain went to the relief of the tax-payer, a fact which was picturesquely described as "raids of the Railways on the tax-payer and raids by the tax-payer on the Railways". In the first 40 years of the existence of the Railways an aggregate loss of Rs. 58 crores was sustained by the Government. Thereafter, from 1898 to 1924, practically every year recorded a profit amounting altogether, during this period, to Rs. 103 crores.¹⁵ It was to enable the Railways to plough back their profits for further investment in railways, and to insulate its finances from the hazards of the economy as reflected in the General Finances of the Government, that the Acworth Committee recommended the separation of the Railway Budget from the General Budget.

Though the finances of the Railways were separated, they were, by convention, obliged to make the following contributions to the General Revenues after meeting their working expenses and depreciation charges: (i) a sum sufficient to pay in full the interest on the capital invested in the commercial lines; (ii) an additional dividend of $\frac{5}{100}$ of 1 percent of the capital-at-charge; and (iii) a share of $\frac{1}{3}$ of any surplus earnings that may be secured in addition.¹⁶

The improved position following the separation of the Railway Finances facilitated rapid progress in the investment in railways (which reached its peak in 1927-28, amounting to about Rs. 43.4 crores). But the experiences of the railways during the 'thirties

¹⁵ *Report of the Indian Railway Enquiry Committee, 1936-37.*

¹⁶ *Ibid.*

were contrary to the expectations of the Acworth Committee. As it happened, the arrangement suggested by the Committee, and approved by the Government, earned a steadily increasing contribution from the railways to the General Revenues, instead of insulating the Railway Finances from the uncertainties of the General Finances. For instance, during the twelve years after the separation, the railways contributed about Rs. 42 crores to the General Revenues.

The profits from which these contributions were paid were earned in the first half of this period when the Railways were able not only to build up a general reserve which, in 1928-29, amounted to Rs. 19 crores. In order to meet their obligations during the second half of the period, the railways practically depleted their general reserves, and by 1935-36 had drawn upon the Depreciation Fund to the extent of Rs. 31.5 crores. In addition, a debt of nearly Rs. 31.0 crores had been accumulated in respect of arrears of contribution due under convention.¹⁷ Both these liabilities were written off owing to the special difficulties confronting the railways during the depression. But a number of other factors necessitated a drastic cut in the rate of investment successively for four years. The rate of investment in railways touched the lowest point in 1933-34 when the rate of gross investment in railways amounted to only about Rs. 6 crores. This was the lowest figure for the whole period under study. It is also interesting to note that the rate of investment in railways in 1933-34 was lower than the corresponding rates both in irrigation as well as in roads and buildings, the latter accounting for about three times as much as the investment in railways.

The net investment in railways during the period 1932-38 was in fact negative, with the result that there was a net consumption of the stock of railways capital to the extent of about Rs. 30 crores¹⁸. The drastic cut in investment during this period,

¹⁷ *Report of the Indian Railway Enquiry Committee, 1936-37.*

¹⁸

	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Gross Investment (Rs. Crores)	6.42	6.03	8.95	11.77	8.16	8.59
Depreciation (Rs. Crores)	13.77	13.56	13.72	13.26	13.17	12.67
Net Investment (Rs. Crores)	- 7.35	- 7.53	- 4.77	- 1.49	- 5.01	- 4.08

which brought this about, followed the decline in railway traffic due to the fall in the volume of external trade, increased rail-road competition, and increase in the operating expenses of the railways consequent on labour legislation. The reserve funds accumulated in the course of the good years following the separation of the Railway Finance from the General Finances were found inadequate to bridge the gap between the receipts and the outlays, and the axe therefore fell on the items of investment.

It follows that public investment in the period under study was neither part of a clearly visualised long-term developmental programme nor contra-cyclical in character. The trends in the rate of public investment over this period indicate that it tended to decline in importance as a factor stimulating economic development in India. In view of the fact that, of all the forms of public investment, railways has been the most potent element stimulating development, the serious setback it received during the depression partly accounts for its diminished importance in the inter-war years.

Nor was public investment contra-cyclical. Instead, we observe particularly during the inter-war years, a cyclical pattern in its trends, closely resembling the fluctuations in the other economical indices in the economy, and a relationship between the two in which these other fluctuations appear to be the cause rather than the result of the fluctuations in public investment. On the one hand, the predominance of agriculture rendered the Indian economy vulnerable to the vagaries of the monsoon, while, on the other, the opening-up of the economy through trade made it susceptible to external disturbances. Fluctuations in agricultural output and fluctuations in exports were therefore the two most powerful factors influencing economic activity in the country, and they affected also the public finances through the tax and non-tax revenues of the Government. In so far as public investment was made to depend on public saving, and the other sources of finance were not adequately exploited to make up for the deficiency in public saving, public investment could not naturally perform any contra-cyclical functions during the inter-war period.

AGRICULTURAL WAGES IN THE 19TH CENTURY IN MADRAS

Dharma Kumar

The present paper is one of the first attempts to put together the agricultural wages data for a particular area of 19th century India and relate them to changes in land under cultivation. It suggests modification of the generally accepted thesis identifying the pressure of population on land as a decisive influence in the growth of a proletariat.

Wage trends form one of the keys to the agrarian history of nineteenth century Madras. Apart from their intrinsic interest, movements in the wages of agricultural labourers can supplement the fragmentary data on land and population. For instance, according to the census data the population of Madras grew from 9.5 million in 1802¹ to 22.0 million in 1851,² i.e. by 130%, emigration during this period was negligible. It is likely that for various reasons the growth of population is exaggerated, but even though population might not have increased at the recorded rate of 130%, it seems likely that there was in fact a substantial increase in population. Was this matched by an equivalent increase in cultivation? Again, in the latter half of the century population grew at a lower but still substantial rate, i.e. by about 70% over the 50 year period. The pressure of population was relieved neither by the opening of new avenues of employment—indeed there was probably an increase in the proportion of those dependent on agriculture—nor, except in some districts such as Tanjore and Tinnevely, by emigration. Cultivation appears to have increased extensively in the second half of the century but towards the end of the century, the pressure of population on land appears to have been felt, one indicator being the fall in real wages.

While it is true that the wages data are very defective in Madras for the first half of the century and cannot throw much

¹ *Census Report for Madras, 1931, Vol. I, p. 1.*

² *Census Report for Madras, 1881, Vol. III, pp. 1-2.*

light on the relation between land and population, for the second half of the century, and particularly for the last quarter, the position is much easier. From the figures of land under cultivation it would appear that the extension of cultivation was unlikely to have substantially exceeded the growth of the labour force in agriculture and may well have fallen short of it if inferior lands were taken under cultivation. This latter presumption is strengthened by the wages data which show a falling trend in wages : wage series for seven districts show that for all the districts, except Tanjore, wages were lower at the end of the century than in 1873.

The wages data also throw light on the monetisation of the economy. At the beginning of the nineteenth century, it is clear that the wages of both attached and casual labourers were generally paid in grain apart from perquisites in the form of clothes and money. But, which is less to be expected, the monetisation of wages proceeded very slowly over the century. Even in 1863 and 1864 in most districts wages were paid in grain. In Godavari, it was reported that agricultural labourers were invariably paid in kind, in Tinnevely that there was no instance of payment in kind having given way to payment in money, and in Bellary that agricultural labourers were still, as in the past, paid very generally in kind.³ But in Ganjam it was reported that in the last five or six years a few employers had begun to pay cash wages. Cash payments were made in Kurnool but only for cultivation of special products such as cotton. And even for cotton, payments were sometimes made in kind, as a proportion of the crop picked.⁴ On plantations where there were foreign masters, immigrant labour and commercial crops, payment was made in cash. In the other areas, cash payments were made, as a temporary arrangement, during periods of scarcity, and the rates were "regulated with reference to current market prices of grain", i.e., their real value was kept constant.⁵ Again, during the 1896-97 famine, labourers were generally paid in cash and not, as usual, in kind.⁶ The switch to money wages would probably not rise at the same rate as prices and

³ Proceedings of the Madras Board of Revenue, hereafter P.B.R., 29.1.1864.

⁴ With the rise in prices of cotton, the employers of Kurnool tried to pay in cash, presumably since it was difficult to lower wages in kind which were fixed as a proportion of the crop.

⁵ P.B.R., 24.6.1864.

⁶ Government of Madras. *Report of Famine in Madras Presidency during 1896 and 1897*; Madras, 1898, Vol. II, p. 15.

certainly not at a higher rate, which shows that the employers were in a stronger bargaining position than the workers. Another reason for the switch to cash payments might have been that in times of scarcity the smaller farmers had no grain stocks at the time of transplanting.⁷ Naturally, casual labourers were more frequently paid in cash; in fact the Collector of South Arcot reported that all labourers, apart from the permanent farm servants, were paid in money.

Even in 1892-93, grain wages were the rule, except in the Godavari and Krishna⁸ deltas, and in two taluks of Coimbatore, and in the vicinity of the large towns. However, by this date, the wages of casual labourers were being more frequently paid in cash, particularly in districts where there were public works or railways being built, as in Godavari, or where non-food crops, like indigo, were grown. But even for these crops, wages were not invariably in money; thus in Madura, agricultural labourers who collected tamarind or picked cotton were paid a share of the produce. Both attached and casual workers would receive grain payments, though in Tinnevely in 1893 the grain payments for cotton cultivation were giving way to money wages. But in some districts, including Bellary and Anantapur,⁵ even casual labourers were paid almost always in grain. Also harvest wages were, naturally, frequently paid in grain even when cash was paid at other seasons. While urbanisation, the development of cash crops, etc., would have speeded up monetisation, the extension of irrigation may have delayed it, since workers on wet lands were paid in kind to a larger extent than those on dry lands. On irrigated lands there would be a steady demand for labour, and a large part of the labour would be attached.

Apart from the wages series from 1873 onwards, which will be discussed later, the wages data are clustered around five points of time: 1800-01, for which Buchanan quotes wage rates for several districts; 1863-64, 1872-73 and 1893-97, when the Board of Revenue collected information from the Collectors on the modes of payment of and movements in the wages of agricultural labour, and 1884, when on a resolution of the Govern-

⁷ Government of Madras, *Report of Famine in Madras Presidency during 1896 and 1897*, Madras, 1898, Vol. II, p. 41.

⁸ Government of Madras, *Statistical Atlas for Madras Presidency*, 1908, p. 139.

⁹ See also evidence of the Collector of Anantapur, Government of India, *Report of the Indian Famine Commission*, 1898, Vol. II, Appendices, p. 3.

ment of India regarding measures for the relief of over-populated tracts, the Collectors were asked to comment on the Board's statement that

“(i) The native labourer lives from hand to mouth and has little reserve upon which to fall to meet bad seasons or want of work”.

“(ii) That in ordinary years he has sufficient food”.¹⁰

For the rest, there are only odd quotations from the settlement reports, the reports on slavery, and other official papers.

Thus, the figures available are, upto 1873 at least, so widely scattered over time that only the broadest generalisations about movements in wages are possible – but even these generalisations can usefully supplement the data on land and population. Difficulties of generalisation arise not only from the scantiness of the wages data but also from the wide variety in modes of payment. Even at the end of the century there was “a great diversity in the customs regulating agricultural wages, not only in different districts of the Presidency, but in different taluks in the same district and in different parts of one and the same taluk. For so vast an area as the Madras Presidency, it is well nigh impossible to make any safe generalisation”.¹¹ Wages were either paid in cash or kind, and varied not only with the area, but also with the status of the labourer. Generally, casual labourers were paid more frequently in cash than attached labourers, and also at higher rates.

There were wide differences even in payments in kind, e.g., payments in paddy wages in Palghat district (in Malabar) ranged from 1 to 3½ seers per day in 1852-53,¹² these are the wages of the “serfs”. In addition to the daily grain wages, there were annual grain allowances (at harvest time); the master also gave a few coconuts, oil and clothes, but variations in these payments are unlikely to be large enough to account for the variations in daily wages. Such differences are of course only to be expected in a society ruled by custom and where serfdom prevents the emergence of a proper labour market. Even wage figures for the same district may, therefore, not be perfectly comparable.

¹⁰ The Board's circular and the replies of the Collectors are contained in P.B.R., 19.10.1888, Circular No. 96-F/6.

¹¹ P.B.R., 29.10.1897, No. 690.

¹² Report of Collector, Malabar, to Board of Revenue, P.B.R., 4.12.1883.

Secondly, in comparing any two sets of figures, the possibility that they may refer to different seasons and to different types of work must be taken into account. We have, for example, separate quotations for the daily wages for nine different types of work performed by agricultural labourers in Tinnevely in 1864; two of these were made in cash and the rest in kind.¹³ The seasonal differences are quite large, the highest rates being paid, naturally, at harvest time.¹⁴ Thus, in Tinnevely in 1864 the daily rates at harvest time were twice as high, or even higher than certain other daily rates, e.g., for irrigation. But the difference was not always so great: e.g., in Vizagapatam in 1863 the daily wages were 7 seers at harvest time and 5½ seers before the harvest.

Thirdly, when comparing grain wages, the types of grain must be considered. It is interesting that payments in better quality grains did not necessarily involve smaller quantities; in fact, it was frequently the other way round, presumably because the farmer made a larger profit on the more expensive grains. If the wages were paid as fixed proportion of output for all crops, the differences in absolute wages would reflect differences in the labour-output ratios. If these ratios were widely different, one would normally expect different proportions of the crop to be paid eventually as wages, after a period of time, the length of which would be determined by the strength of custom. Thus in Salem, in 1864, payments in paddy were higher than those paid in coarse grains, such as *ragi*, *cholum* or *cumbu*, whereas the latter (except for *ragi*) were likely to be the cheaper crops.¹⁵ But this was not always the case. In Madras, in 1863, the quantity of paddy given as daily wages was larger than the quantity of *ragi*, which was the more expensive crop. Related to this is the fact that wages on wet lands will differ from payments for labour on dry fields, partly because of the differences in the farmers' profits (since labour was not completely

¹³ The nine types of work were: fetching branches for manure; baling water and repairing bridges (cash payments were made for these two functions); removing weeds, fetching ashes and black clay for manure; removing nursery plants and threshing produce; transplanting; treading grain by cattle; irrigating; fetching cowdung manure and weeding; reaping and threshing. But the categories are not mutually exclusive, and the wage rates for some are the same. Collector, Tinnevely to Board of Revenue, P.B.R., 7.1.1864.

¹⁴ Collector, Vizagapatam to Board of Revenue, P.B.R., 2.12.1863. The Agricultural Labour Enquiry shows that in 1951 wages for threshing were 24% above the average wage rates. *Report on Intensive Survey of Agricultural Labour*, New Delhi, Vol. VI, pp. 25-26.

¹⁵ Reply of Collector, Salem, P.B.R., 9.8.1864.

mobile), partly because of the differences in the nature of the labour itself, and partly because a far greater proportion of the labour on wet lands was attached labour. Thus, in 1863, the Collector reported that "by far the greater part of the wet cultivation in Malabar is carried on by this class (serfs)".¹⁶

In the fourth place, while daily wages might not change, the wage rate per unit of work might alter. For example, in Vizagapatam, the Collector reported in 1893 that although wage rates had on the whole been stable for the last thirty years, "there has been a considerable alteration, but...it has taken the form of a reduction in the quality and quantity of work done for the same money." This was partly because the better labourers worked on the construction of the East Coast Railway, so that the quality of the labourers remaining in agriculture declined.¹⁷

Fifthly, the wage must be related to the status of the labourer, and here the distinction between casual and attached labour is not the only relevant one. The wage also depended on the caste of the labourer, and indeed, also upon that of the employer. Even amongst the attached labourers or serfs, those of the lowest castes were paid the lowest wages. As late as 1892-93, it was reported that the wages of the *pannial* varied with his caste: "The condition of panchama pannials is very little removed from that of slaves, as they get only so much as is required for their maintenance whereas the sudra pannials receive besides the payment in kind a number of advantages from their masters as well as gifts in money on certain occasions. Their material condition shows a distinct tendency to improve"¹⁸ Brahmin employers sometimes followed different customs of payment—the threshing fees for *agraharams*, or the Brahmin villages, are separately quoted for Ganjam in 1864¹⁹. Indeed, all over India Brahmins paid different and lower fees for various village services, than those paid by the other castes.²⁰

¹⁶ P.B.R., 4.12.1863.

¹⁷ Collector, Vizagapatam, to Settlement Department, 19.5.1893. P.B.R. (Revenue Settlement, Land Records & Agriculture), 15.6.1893. The reduction in hours of work was probably mainly the result of the poor quality of the labour and not of deliberate action, unlike the go-slow movement organised by the *pannaiyal* of Tanjore in recent years.

¹⁸ *Panchama* are the untouchable castes. P.B.R., 29.10.1897, No. 690.

¹⁹ P.B.R., 4.4.1864.

²⁰ Beidelman, Thomas O., *A Comparative Analysis of the Tajmani System*, New York, 1959, p. 9.

Finally, it is not always clear whether the figures relate to attached labour or casual labour ; in comparing the wages of casual and attached labour, the perquisites of the latter, and the differences in volume of employment must be taken into account, as well as differences in hours and conditions of work, and in status.

These problems would naturally be greatest for attached labour, since over a long period a variety of customary perquisites would have been established.²¹ The attached labourers were invariably paid at least partly in kind. The payments could be fixed either in absolute terms or as a percentage of the crop. But proportionate wages were probably paid only in the harvest season,²² since it would be difficult to calculate the labourer's share (though it could, of course, have been related to area sown, etc.) at other times.²³ For reaping and threshing, the wages varied from 4% to 12% of the crop, and in addition a cooked meal would be provided.²⁴ Labourers also had the right to glean in the fields and the threshing floors after the harvest. In addition to grain payments and cooked meals the master might supply spices, coconuts and oil. One or two pieces of cloth a year, or a blanket, were also provided and the master gave cash or grain presents of festivals, or for births, marriages and funerals. These payments would naturally vary much more than the daily grain wages.²⁵ In some areas the master gave interest-free loans, up to a narrow limit,²⁶ but doubtless adjustments for interest were frequently made in the wage payments, another factor reducing comparability.

The agricultural labourer, like every other inhabitant of the village, was generally given rent-free land for his house on the village site ; and his house, a mud and thatch hut which he

²¹ See, for example, reply of Collector, Arcot, P.B.R., 1.2.1864.

²² Reply of Collector, Chinglepet, P.B.R., 24.6.1864.

²³ In the Tamil areas particularly, the agricultural serfs were paid a proportion of the harvest, e.g., Campbell, *op. cit.* Again, according to Kautilya, the classical Indian writer on political economy, if no remuneration were fixed, the agricultural labour and the cowherd could claim one-tenth of the product as wages. Kautilya, *Artha Shastra*, ed. Sama Sastry, Part III, Ch. 13-40.

²⁴ However, in some areas the supply of cooked food depended on whether the labourer was of a high enough caste to work in the house. P.B.R., 29.10.1897.

²⁵ "The grains wage is very accurately fixed and varies very little from year to year. The money presents, however, no doubt, vary considerably according to the master's will." Reply of Collector, S. Arcot, P.B.R., 29.10.1897.

²⁶ In Ganjam the limit was Rs. 10; P.B.R., 4.4.1864; In Madras the limit was Rs. 35; P.B.R., 22.2.1864.

built himself, would also be free. In 1928, it was stated that "in the districts of South Arcot, Tanjore and Trichinopoly . . . a few high-caste persons called mirasidars claim, rightly or wrongly, to have a prior right over all the land in the village including unoccupied areas and including the house sites of the labourers. It is in villages of this type that emigration is most frequent as the low caste labourer has no chance of acquiring any land available and is at the mercy of his master, being liable to be expelled from the only land available for the house-sites if he should offend him".²⁷ But there are no other references in the literature to this practice, and it may be that the landlords claimed these rights in the course of their battle with Government over their ownership rights, and only rarely attempted to assert them in practice.²⁸ On the other hand, "in some districts, where the landholders do not themselves cultivate, the farm servants are permitted to grow an after crop on their own account in remuneration of their services."²⁹ In fact, in the Cudalur taluk of the Nilgiris, the farm servants, in addition to being paid daily wages, were "allowed every year the paddy crop on two of the best plots in the occupation of their masters".³⁰

An important, but not universal, perquisite of attached employment was that the master was obliged to employ every male member of the labourer's family above a certain age.³¹ But such an obligation could clearly not be permanently binding. The right of the attached labourer to be paid when not employed by his master was even more doubtful. Even in Malabar, in the early part of the century, it was variously reported that the serf had to be paid a fixed wage all the year round, whether employed or not, and that when not employed he was paid the fixed customary wage or none at all.³² But if he was not paid, he was probably permitted to work for other employers.³³

The attached labourer was generally paid not by the day but by the month; deductions for days when the labourer was

²⁷ *Report of the Royal Commission on Agriculture in India, 1928*, p. 315.

²⁸ The labourer's house site would be in the low caste quarter of the village, and even if the village acknowledged the mirasider's ownership of this area, which is doubtful, he could only use it to house another family of the labourers. But it is occasionally mentioned that the employer paid the labourer's rent.

²⁹ *Census Report, 1871*, p. 178.

³⁰ P.B.R., 29.10.1897.

³¹ Reply of the Collector, Ganjam, P.B.R., 4.4.1864.

³² P.P., 1831-32, XI-XII. *Report of the Select Committee on the Affairs of the East India Company, 1832*, Appendix K, p. 566.

³³ Reply of Collector, Malabar, P.B.R., 29.10.1897.

unemployed may have been made but probably infrequently.³⁴ Even the monthly wages were sometimes paid only for part of the year; during the harvest the labourer was given a proportion of the harvest. These harvest fees, it should be noted, could be either in addition to, or in lieu of, the fixed monthly or daily wage, depending on their size. Thus in South Arcot the harvest fees were, in 1872,³⁵ in lieu of the monthly wages, whereas in Tinnevely in 1897 the attached labourer on wet lands got 136-407 seers of paddy at the time of harvest, in addition to daily wages of 3.6 seers during the harvest and 1.8 seers at other times.³⁶

The certainty of obtaining some employment, as well as the fact that the master generally maintained the attached labourer in sickness, old age, etc., were the main reasons (apart from perquisites) why the daily wages of casual labourers were almost invariably above the daily wages paid to attached labourers. In 1800 a male slave in S. Canara got three-fourths the daily wage of the hired labourer.³⁷ In 1882 in Malabar it was remarked that the wages of the slaves were lower than those of free labourers, even though the latter worked much shorter hours. With loosening bonds, the masters probably accepted fewer obligations towards the attached labourers, but even so the wage differential remained; there is not enough data to say in what direction and to what degree it changed.

For most of the century then, it is only these scattered wage quotations that are available. It is best to consider them district by district, to see if any trends are discernible. But before doing so it must be remembered that even if the figures of the wage rates were correct,³⁸ the wage rates in themselves would

³⁴ Such deductions were reported in Andhra in 1948; Reddy, N. S., *Transition in Caste Structure in Andhra Desh with Particular Reference to Depressed Castes*, unpublished thesis for Lucknow University, 1952, p. 135.

³⁵ P.B.R., 11.11.1872.

³⁶ P.B.R., 29.10.1897.

³⁷ Buchanan, Francis, *A Journey from Madras through the Countries of Mysore, Canara, Malabar*, 2 Vols., 1801, 2nd Edn., Madras, 1870, Vol. II, p. 228.

³⁸ One of the major sources of error in the variety of measures used. Grain in Madras was measured in terms of volume, not weight, and by heaped, not struck, measures. It is always clear what grain is being referred to, and the measures vary from period to period, from district to district, and, indeed, within each district. All these measures—*edangallis*, *mercals*, *tooms*, and so on—have been reduced to the standard Indian measure, the seer, which is equivalent to 2.057 lbs. A comprehensive, but not complete, description of the various district measures is contained in the *Manual of Administration of the Madras Presidency*, 1885, Vol. II, Appendix XC.

not be a complete guide to changes in the economic conditions of the agricultural labourer. As we have seen, even for attached labourers wages were paid only when the labourer was actually employed by the master, so that the volume of employment must be taken into account. For the period 1875 onwards, when it appears likely that the pressure of population on the land increased, this would mean that the fall in wage rates may not reflect fully the deterioration in the condition of the labourer since it is likely that there would also have been a fall in the days of employment per labourer.

Again, these figures would not always reflect changes in perquisites and these are likely to have fluctuated more sharply than the wage rates. Changes in status must also be taken into account. Thus it is very probable that the agricultural labourers were less subject to harsh physical treatment in the latter half of the century, but this may have been for social and legal, rather than economic reasons. A more important qualification is the type of grain consumed. Thus there may have been some increase in welfare due to an improvement in the quality of the staple food. This was undoubtedly the case in the irrigated areas where paddy was grown instead of coarse grains.³⁹

✓ Of all the districts, Malabar has the largest number of wage rates quoted; it is also the district in which there is the most continuity in both modes and rates of payment. In 1801 Buchanan reported that both male and female serfs were given 2 *edan-gallis* of rice in the husk weekly, which would be equivalent to about 1.5 to 2 seers. This would, of course, be totally inadequate to support them, "but the serfs also got about 5 per cent of the gross produce, together with some cloth."⁴⁰ In North Malabar, the hired servants who belonged to the *tiya* caste and worked only till noon got 2½ *edangallis* or about 1.8 to 2.5 seers per day,⁴¹ whereas the slaves had to work till night fall and sometimes watch the fields at night. In 1822 it was reported that the serfs got between 1½ to 1¾ seers per day while the casual labourers working shorter hours, got 2 to 2-⅓ seers per day.⁴² In addition to other perquisites the slave was sometimes allowed to cultivate a little land on his own account.⁴³ The average wage rate in

³⁹ Thus in Godavari with the extension of anicut irrigation after 1870 rice became the staple food grain, instead of ragi. *Famine in Madras Presidency during 1896-97*, Madras, 1898, Vol. II, p. 96.

⁴⁰ Buchanan, *op. cit.*, Vol. II, p. 67.

⁴¹ *Ibid.*, Vol. II, p. 174.

⁴² Groome, *Report on Malabar*, 14.1.1822.

⁴³ P.P., *Slavery Papers*, 1834, p. 9.

1852-53 was 2.1 seers per day, the actual wages ranging from $\frac{3}{4}$ to $3\frac{3}{4}$ seers. These wages were more or less unchanged 10 years later, except for a rise in a few areas which took the average upto 2.3 seers per day.⁴⁴ In 1872 the Collector of Malabar reported that the great majority of the agricultural labourers were still attached and were still slaves in all but name, and that they were paid, for the most part 2.4 seers per day whether they worked or not so that there was little perceptible improvement in their wages.⁴⁵ Again in 1892 it was reported that the farm servants were paid for half the year in paddy at a fixed rate of, on the average, $2\frac{1}{2}$ seers per man and $1\frac{1}{2}$ seers per woman. At the harvest the labourers were paid a share from $\frac{1}{8}$ th to $\frac{1}{10}$ th of the gross produce. There had been, according to the Collector, some increase in both the grain and money wage rates for casual labour over the last 20 years.⁴⁶ Thus, almost throughout the century the attached labourer was paid a little more than 2 seers per day, with some small perquisites while the casual labourer was paid about a third more, and had also to work considerably shorter hours. This continuity is only to be expected in view of the fact that the *cheruman* continued to be in a State of serfdom throughout the century.

There are far fewer data available for South Canara but here too, as one would expect wages did not show any marked tendency to rise over the century. In 1801 Buchanan had reported that the hired labourer received about 1.3 seers of clean rice per day and the male slave got 0.9 seers per day, both being given perquisites such as cloth and a little cash.⁴⁷ The slave was also occasionally given a small plot of land over which he had more rights than in Malabar.⁴⁸ In 1863 "the labourers are paid in kind now, as they have always been, at the rate of 2 seers of rice per day."⁴⁹ In 1892-93 it was reported that farm servants got 1 to 2 seers of clean rice per day, the average being $1\frac{1}{2}$ seers, as well as a mid-day meal and the usual perquisites, including an allotment of rent free land from one-eighth to one-third of an acre.⁵⁰ Thus in South Canara the wages of the slaves

⁴⁴ Collector's reply to Board of Revenue, P.B.R., 4.12.1863. No distinction is made between the wages of attached and casual labour.

⁴⁵ P.B.R., 11.11.1872, No. 2179.

⁴⁶ P.B.R., 29.10.1897, No. 690.

⁴⁷ Buchanan, *op. cit.*, vol. II, pp. 227-228.

⁴⁸ *Parliamentary Papers*, 1834, XLIV, *Slavery in India* (hereafter *Slavery Papers*) 1834, p. 9.

⁴⁹ Reply of Collector, S. Canara, P.B.R., 24.11.1863.

⁵⁰ Raghavaiyangar, S. Srinivasa, *Memorandum on the Progress of the Madras Presidency*, Madras, 1893.

appear to have been a little lower than in Malabar, but here also there was no proper labour market and wages remained remarkably stable through the century.

The Tamil districts show a much greater variety in modes of payments, and there are also far more fluctuations in wage rates. For the first half of the century, data are available only for a few districts. In Chinglepet, according to Place, the earnings of a *pannial* amounted to around 105 seers per month but from this the Board of Revenue estimated that there would have to be a small deduction for certain fees, so that the net wages would amount to 95 seers per month ; very little was given by way of perquisites. In 1863 it was reported that attached labourers were paid fixed grain wages only in the first six months while for the remaining six they were given about 20 per cent of the harvest, together with the right to glean in the fields and certain other perquisites.⁵¹ In 1884, the wages of a permanent farm servant were, according to an official, Rs. 56 or the equivalent of 840 seers per annum, but, according to a Missionary, Rs. 24-30 per annum, or the equivalent of 360 to 450 seers of rice. It was generally agreed, however, that the labourer was very badly off, a fact partly attributed to the mirasi system, as also to the poverty of the soil.⁵² In 1892-93 it was reported that casual labourers were paid 3.7 to 4.9 seers per day, which, according to the Collector, represented a decline of about 25 per cent in the grain wage for casual field labour over the 20 year period. While the Sub-Collector felt that there had been a deterioration in the condition of the labourer, his superior officials did not agree with him. The wages of the farm servant had remained unchanged for the last 20 years.⁵³ In fact, it was calculated that the total earnings of the attached worker in 1892 would amount to more or less the quantity earned in 1801, i.e., about 96 seers, including harvest perquisites.⁵⁴

In Salem, according to Buchanan, the daily labourer got the equivalent of 3.5 seers per day, and the ploughman got

⁵¹ P.B.R., 24.6.1864, No. 392.

⁵² P.B.R., 7.10.1884, No. 9345.

⁵³ P.B.R., 29.10.1897, No. 690.

⁵⁴ Raghavaiyengar, *op. cit.*, p. 146.

in cash and kind, the equivalent of 654 seers a year.⁵⁵ In 1863-64, the rate of wages ranged from 66 seers of rice per month, or 53 seers of *ragi* or other coarse grains, to 106 seers of rice or 66 seers of other coarse grains together with minor perquisites ; these rates had remained unchanged for some time.⁵⁶ In 1872-73 the Collector reported that the *pannial* was paid from 40 to 66 seers of either *ragi* or other grains together with an annual cash payment of Rs. 2 to 5 ; occasionally *pannial* were paid, in cash, Rs. 2½ to Rs. 4 per month. Casual labourers were paid 5 to 6.6 seers per day. The Collector felt that there had been some improvement in the condition of labourers, though this does not seem to be borne out by the figures.⁵⁷ In 1892-93 it was reported that the monthly wages of an adult labourer ranged from 63 to 84 seers per month with a cash payment of Rs. 2½ to 3 at the end of the year in Salem main division. In another division of the district, rates were lower, from 46 to 62 per month, whereas in yet another division wages amounted to 112 seers per month.⁵⁸ In some parts of the district, then, there was, according to these figures, a distinct improvement in wages while in other areas wages tended to remain stable between 1863 and 1893 at least.

In Coimbatore, in 1801, according to Buchanan, the *padial* got in all, including their cash payment, the equivalent of 684 to 984 seers of paddy per annum, in rough rice of which half may have been husk. Casual labourers got over 4 seers per day.⁵⁹ In 1863 the Collector reported that the kind payments which were general, except in times of scarcity, continued to be at the same rate as they had been for 10 years or more.⁶⁰ In 1892-93, the Collector reported that the wages of attached labourers ranged from 594 to 792 seers per annum, which he said were the same rates as previously, while the wages for casual

⁵⁵ In Kellamangalam the ploughman got annually 20 bushels worth 28 *fanams* together with 16 *fanams* in cash and a hut. The daily labourer, male or female, got 0.356 bushels of rice per day, of which half was husk and has therefore been deducted. Buchanan, *op. cit.*, Vol. II, pp. 520-21. A bushel is roughly equivalent to 21.9 seers of rough rice.

⁵⁶ Reply of Collector, Salem, P.B.R., 9.3.1864.

⁵⁷ P.B.R., 11.11.1872.

⁵⁸ Raghavaiyangar, *op. cit.*, p. 142.

⁵⁹ In Darapuram, the farm servants got the equivalent of 31 bushels of rice in all, of which half was paddy. In Pollachi, the *padial* got 29 bushels in grain, together with 10 *fanams* in cash, the whole amounting to 984 seers. It is not stated whether this included husk or not, but it probably did. Buchanan, *op. cit.*, Vol. II, pp. 29 and 32.

⁶⁰ P.B.R., 7.12.1863.

labourers amounted to 1.9 to 2.4 seers per day.⁶¹ The Collector's figures are borne out in Robertson's Report on Coimbatore of 1881 wherein it was stated that the wages of the attached labourers amounted to 768 seers per annum and those of the casual labourers to 2.4 to 3.2 seers per day.⁶² Thus, there seems to have been little change over the century in the condition of the attached labourer in Coimbatore or in the wages of the casual labourer.

In South Arcot, the Collector reported in 1863 that wages had remained unchanged for 10 years at an average of 75 seers per month for the *padial*, together with one-twelfth of the harvest, a noonday meal, and other perquisites. He added that many padial had taken up land for cultivation on their own account⁶³. In 1873, the Collector reported that the condition of the labourer had improved materially over the last twenty years, but this does not square with his own figures: the monthly wages of the attached labourer amounted to 18 seers of *ragi*, 74.25 seers of *varagu*, or, occasionally as a substitute for the latter, 34 seers of paddy. These wages were paid from November to June; during the harvest season the labourers were paid 5% of the harvest. Casual labourers were paid 3.3 seers per day, together with a midday meal. According to the Deputy Collector, the labourers got 44.5 seers of paddy or *ragi* per month, and 7 to 8% of the harvest, making 950 seers in all per annum, together with a mid-day meal.⁶⁴ By 1892-93, the wages of attached labourers had fallen further to 642 seers per annum; casual wages also declined to 1.6 to 1.9 seers per day.⁶⁵

For the southern districts, a fair amount of data are available only for Tanjore. Tanjore was not a typical district, for the fertility of the soil, the extent of irrigation and the possibilities of emigration were here unusually great. Campbell's description of the Tamil serf in 1832 was that while he received subsistence wages, he was much better fed and clothed than his counterpart on the west coast—applied particularly to Tanjore.⁶⁶ In 1863 the attached labourer was paid 0.8 seers of grain per day for the period actually employed and was also given a small

⁶¹ P.B.R., 29.10.1897.

⁶² Robertson, *Report of a Tour of Coimbatore and the Nilgiris*, Madras, 1881.

⁶³ P.B.R., 22.2.1864, No. 1146. The rates are given for each taluk, and range from 66.25 to 118.8 seers per month.

⁶⁴ P.B.R., 11.11.1872.

⁶⁵ P.B.R., 29.10.1897.

⁶⁶ P.P., 1831-32, XI-XII, *Report of the Select Committee on the Affairs of the East India Company*.

piece of land along with other perquisites ; the casual labourer was paid 1.1 seers a day, but the use of casual labour was extremely rare. The Collector reported that the increase in cash payments had kept pace with the increase in prices, and that even the grain rates in some districts had risen somewhat in response to the increased demand for labour ; there had, therefore, been an improvement in the condition of the agricultural labourers. In 1872 the *pannial's* earnings were reported to be 1.6 seers of paddy a day for the period of employment (which would be about nine months in the year), in addition to harvest fees and some land free of assessment. His total yearly earnings, excluding those of other members of his family, were calculated at 1346.4 seers, of which one-third would be the produce of the land given to him.⁶⁷ In 1884, the *pannial* was paid 2.24 seers a day by his employer, but he could earn higher wages in the slack season by working elsewhere.⁶⁸ In 1892-93 the Collector reported that their wages had risen to 2.4 to 2.8 seers daily, and that the condition of the less degraded castes of labourers had tended to improve.⁶⁹

For the Telugu districts there is almost no information available for the first half of the 19th century. In Kistna in 1819 the Collector stated that the "slaves" were paid 2 seers of paddy per day for 6 months ; at the harvest they were given about 4% of the gross produce, which constituted their means of subsistence during the rest of the year.⁷⁰ In 1863, the Collector mentioned that the old system of payment in kind to agricultural labourers still prevailed to a large extent and that higher quantities of grain were given, in spite of the increase in the price of grain. In 1893 the Collector stated that the daily wages of the farm labourers amounted to around 2.7 seers per day, together with 7.5% of the gross produce at the time of harvest ; in the upland districts labourers were paid about 3.2 seers of coarse grain per day. The casual labourer generally got higher wages, especially in the delta ; his wages, if paid in kind, would amount to 3.2 to 4 seers per day of coarse grain.⁷¹ On this very scanty evidence, there would seem to have been a rise in wages over the century.

⁶⁷ P.B.R., 11.11.1872, No. 2179.

⁶⁸ P.B.R., 7.10.1884.

⁶⁹ P.B.R., 29.10.1897, No. 690.

⁷⁰ PP. 1841, XXVIII, *Report of the Indian Law Commissioners on Slavery*, p. 114.

⁷¹ P.B.R., 29.10.1897.

In Vizagapatam, the Collector reported a fall in grain wages from $6\frac{1}{2}$ to 8 seers per day, depending on the season, in 1854 to $5\frac{1}{2}$ to 7 seers per day in 1859;⁷² however, even at the lower rate these were very high wages by the standards of the rest of the area. In 1892-93 these wages recorded a sharp fall to 0.8 to 1.7 seers per day for casual labour.⁷³ The Collector also pointed out that the grain wages as a general rule had remained unaltered for a very long series of years. In Ganjam the wage for permanent farm servants varied in 1863 from 90 to 100 seers per month in paddy, which would be equivalent to Rs. 18 to 24 per annum, excluding harvest fees, interest-free loans and other perquisites.⁷⁴ In 1895 it was reported that the casual labourer whether male or female got 6.5 to 13 seers of paddy during the harvest. In one part of the district, Goomsur, the farm servants got 96 seers per month excluding perquisites. The grain wages thus remained fairly steady over the 30 year period, as the Collector remarked, "as the system of payment in kind has not been superseded to any appreciable extent by cash payments, there has apparently been little change in the condition of the bulk of the agricultural labourers".⁷⁵

Godavari, on the other hand, showed a distinct rise between 1872 and 1892. In 1863, the Collector gave no figures but only stated that the agricultural labourers were not paid in kind and the rate at which they were paid was nearly double what it had been seven to eight years previously.⁷⁶ In 1892-93, however, the Collector reported that the permanent farm servants were given between 960 and 1600 seers per annum in 1872, which rose in 1892-93 to 1600 to 2400 seers per annum.⁷⁷ In Nellore, in 1872-73, it was reported that the customary wage for farm labourers, which had prevailed for many years, ranged from 1098 to 1464 seers of paddy per annum, or 732 seers of *ragi* or *jonna*, a blanket, a pair of slippers and no other perquisites.⁷⁸ In 1884, the average annual wage of the permanent farm servant

⁷² P.B.R., 2.12.1863.

⁷³ This reflects the rise in food prices, since the cash wages do not show much change. One possibility of course is the conversion may be into different kinds of grain so that the actual fall was not great and another possibility is, as the Collector pointed out, that there was a reduction in the quality and quantity of the work done for the same period.

⁷⁴ P.B.R., 4.4.1864.

⁷⁵ P.B.R., 29.10.1897, No. 690.

⁷⁶ P.B.R., 22.7.1863.

⁷⁷ P.B.R., 29.10.1897, No. 690.

⁷⁸ P.B.R., 11.11.1872, No. 2179.

had risen to 1830 seers, according to the Collector.⁷⁹ Wages remained steady till 1892, when it was reported that the grain wages ranged from 1098 to 1830 seers per annum ; the daily wages of the casual labourer was, on the average, 3.5 seers.⁸⁰ In these Telugu districts, and particularly in Nellore, wages were, in relation to the wages in the rest of the Presidency, fairly high.

Wage levels were distinctly lower in Kurnool and Anantapur. If data were available for Bellary, it would probably fall into this low wage group, at least till 1880 or so, when the spread of cash crops and the introduction of cotton presses increased employment and wages. In Kurnool, data are available only from 1888 onwards, from which data there seems to have been some decline in wages. Thus, in 1888-89 the wages of able bodied agricultural labourers amounted to the equivalent of 570 seers per annum.⁸¹ In 1892-93, according to the Collector's records, the permanent farm servants were given cash or grain wages varying from Rs. 4 to Rs. 50 per annum, the average being the equivalent of about 550 seers per annum. Casual labourers were paid 2 to 3 seers of *cholam* per day. The Collector added that in times of distress the grain wages were occasionally reduced by 25 to 50 per cent, though they reverted to the customary rates after the period of distress was over.⁸² In 1896-97 the grain wage had further fallen to 356 to 475 seers per annum, perhaps as a result of the famine. Wages in Anantapur, which is one of the less fertile districts, were significantly lower than in the other Telugu districts ; in 1897-98 the Deputy Collector of the Gooty division reported that in ordinary seasons the agricultural labourer earned from 244 to 391 seers of *cholam* per annum and even these low rates would fall at the time of famine.⁸³

On the basis of the Collectors' reports, as well as on examination of about 7000 service agreements for both agricultural and non-agricultural labourers, and personal enquiries, Raghuvaibangar concluded in 1892 that "there has been nowhere any

⁷⁹ P.B.R., 7.10.1884, No. 9545.

⁸⁰ P.B.R., 29.10.1897, No. 690. All these wages are reported in *tooms*, and have been converted at 61 seers to the *toom*, the rate given by the Collector in both 1872 and 1892. According to the *Manual of Administration for Madras Presidency*, however, the standard *toom* in Nellore equalled 56 seers. At this rate the grain wages would have ranged from 1008 to 1680 seers per annum.

⁸¹ P.B.R. (Settlement), 8.8.1889, No. 3067. The monthly wage, as well as food prices are given for each taluk from which average figures have been arrived at.

⁸² P.B.R., 29.10.1897, No. 690.

⁸³ *Report of the Indian Famine Commission, 1898, Vol. II, Appendices 25-26.*

reduction in the customary wages paid for agricultural labour.... the grain wages given for casual labour, e.g., additional labour employed during harvest, appear to have generally increased, and in some cases doubled. The tendency towards increase in the rates of daily grain wages allowed to field hands permanently employed is less marked, though there are a number of instances in which there has been an increase even as regards these. This shows that custom is gradually giving way to competition, and that the tendency on the whole is towards an increase in the earnings of labourers as estimated in foodgrains."⁸⁴ The Board of Revenue agreed, as it well might, with this conclusion.⁸⁵ On the whole the data do support the view that wages did not fall in real terms, in fact, wages were slightly higher towards the end of the century than in the beginning in some districts, though on the whole they tended to be stationary. But the quotations are far too scattered over time and space to warrant any firm generalisations of this type. What is clear is that everywhere wages were near the subsistence line.⁸⁶ The agricultural labourer generally earned just enough to feed himself and his family. If he earned enough to save, these savings would be wiped out in a period of famine or crop failure, when real wages were sharply cut. The data do show clearly that the wages of attached labour, being paid in kind and being regulated by custom, remained stable over a long period and showed the greatest stability in Malabar, where the conditions of serfdom were most stringent. As against this stability in the rates of payments in kind, the price of rice from 1896 to 1900 was around 140% more than the average in 1809-1813.⁸⁷

For the century as a whole it is therefore impossible to arrive at any firm conclusions about the movements in wages.

⁸⁴ Raghavaiyangar, *op. cit.*, p. 157, No. 70.

⁸⁵ P.B.R., 29.10.1897. The Board added, however, that the famine of 1896-97 would lead to the substitution of money for grain wages, and to a fall in real wages.

⁸⁶ The agricultural worker would eat from about 24-30 oz. of rice per day, together with meat very occasionally, and some vegetable oils and spices. A wage of 2 seers or just over 4 lbs. a day, would, if supplemented by the earnings of his wife and children, just suffice to maintain a family of, say, five. In fact, of course, deficiency diseases and malnutrition were very common. *Report of the Royal Commission on Agriculture*, New Delhi, 1928, Vol. III, pp. 732 and 746.

⁸⁷ The prices of foodgrains for quinquennial periods from 1809-1813 to 1883-84 to 1887-88 are given in Raghavaiyangar, *op. cit.*, p. 58 and Appendix VCC. These averages exclude famine years as being untypical. From 1873 onwards, prices are given in series *Prices & Wages in India*.

But this is not the case for the last quarter of the century. From 1873 onwards there is a regular wage series, for which the data were collected every 6 months, and from which it is possible to draw much firmer conclusions than from random quotations taken from widely different sources. It is true that this series is also subject to a number of short comings, but even so it can yield useful, and, in the light of the Board's observations, surprising conclusions. From 1873 onwards the Government collected figures of average monthly agricultural and other wages for several districts (seven in Madras) every six months. The official statistical agency itself pointed out that ;

"The record obtained entirely fails to give a reliable indication of the remuneration of the labourers. This result is due to the inherent difficulties of the problem, and the practical impossibility of getting the untrained reporting agency to make the necessary allowances for the varying conditions of employment. Payment in kind is commonly practised, either for the entire wage, or as a supplement to cash wages, and the supplements vary according to the season and the nature of the employment. The regularity of employment also varies greatly, and employment is practically nowhere continuous throughout the year. The most common expedient for avoiding these, and other difficulties, is to return cash wages for labourers employed in towns or their neighbourhood, which are in no way typical of the rates prevailing throughout the district"⁸⁸ But this statement applies to the all-India figures, and for Madras at least it would appear from the records that the "common expedient" of returning cash wages for labourers employed in towns was not adopted. The Collectors sent in figures separately for towns and "rural tracts" and the figures for urban wages are almost always higher. The Tahsildars (village officials) collected the wage rates in grain and converted them into cash at the local prices, but the statements do not mention the types of grain and their prices, or the perquisites included, all three of which varied widely. In addition, the villages taken into account sometimes changed ; there were frequent inconsistencies in the figures, and discrepancies arose which even the Collectors could not explain. So these figures⁸⁹ must be used with extreme caution.

⁸⁸ Government of India (Director General of Commercial Intelligence & Statistics), *Prices & Wages in India*, 1907.

⁸⁹ Summary figures are contained in *Prices & Wages in India*, 1907 ; detailed figures, as well as details regarding the collection of the figures are available in P.B.R. (Revenue Settlement, Land Records & Agri-

Tables I and II set out the series in monetary and real terms for the seven districts for which the data have been collected, namely, Ganjam, Vizagapatam, Bellary, Tanjore, Tinnevely, Salem and Coimbatore. Movements in real wages and in prices are also set out in graphs at the end of this chapter. There was a marked rise in prices over the period; the average annual retail price of common rice for the Presidency went up from Rs. 2.466 for 40 séers in 1873 to Rs. 4.297 in 1900. Overlying the long term trend, there were sharp short-term fluctuations, particularly in famine years, such as 1876-78, when prices shot up.⁹⁰ It is noticeable that the real wages fluctuate more than the money wages. Since in most of these districts the wages were actually paid for the most part in kind, this would imply that the actual wage rates did fluctuate sharply. There is the danger however, that conversions into money rates were made at prices, other than those used here since the local officials collected data on the payment in kind and then converted these into money rates at the prevailing prices. The local officials might have used the price prevailing in the village for which the wage rate was quoted whereas, of necessity, the average price of the district has been used here. Again, there may be differences in the grains for which prices were taken. It is likely therefore that the real wage rates did not fluctuate to the extent shown by the graphs.⁹¹

Some of the short-term fluctuations do, of course, have a more rational explanation. Thus, the fall in wages in 1878 in Bellary, Ganjam and Vizagapatam obviously records the effects of the famine of 1876-1878; famine again would be the cause of fall of wages around about 1898 shown in all the seven districts. Indeed, it is likely that nearly all the more serious fluctuations would reflect crop failures, though some of the short-culture), e.g., No. 3067 of 8.8.1889; No. 1516 (Misc) of 14.4.1890 and No. 3736 of 11.9.189; No. 349 of 16.8.1893; No. 6691 (Misc) of 24.11.1893; No. 994 (Misc) of 21.2.1895; No. 228 of 26.7.1895; No. 1696 (Misc) of 1.4.1896. In 1898 the Board explained that the wages reports should be obtained every month from 3 or 4 "representative" villages, the wages of adult males should be given, payments in kind and perquisites should be converted into cash and any differences between adjacent districts should be explained. P.B.R. (Settlement), 7.12.1898, No. 446.

⁹⁰ *Prices & Wages in India, Calcutta, 1915*, p. 78.

⁹¹ In Tanjore for instance it would appear that a fixed rate of grain wages was converted at fluctuating prices between 1873 and 1885 although our graphs show fluctuations; however, even the money wages quoted in the letter from the Collector differ from those printed in the series. P.B.R., 23.1.1886, No. 622, Misc.

Table I: *Annual wages of Agricultural Labour in seven Districts. 1873-1900*

(In seers of common rice)						
Ganjam	Vizagapatnam	Bellary	Tanjore	Tinnevely	Salem	Coimbatore
1081	820	626	735	993	306	826
878	808	659	464	759	425	676
873	780	697	406	963	485	853
818	820	538	838	827	376	651
458	515	513	460	588	209	520
413	404	351	613	642	251	509
570	302	528	483	779	371	711
611	575	669	561	1047	376	584
873	518	648	500	998	423	1122
833	487	643	566	1260	421	1368
909	496	667	514	1350	384	1413
689	780	681	665	1005	408	1296
584	654	600	524	871	394	1179
580	618	595	602	767	386	1242
878	367—734	822—924	799	697—929	529—882	522—1305
859	582	870	1052	827	683	824
483	576	849	1056	788	589	803
622	428	606	674	470	404	702
745	500	556	634	520	338	668
553	374	477	684	486	340	614
604	394	546	622	414	369	628
655	402	590	781	572	429	723
855	470	594	775	556	462	637
775	478	567	880	623	510	602
468	323	451	702	515	431	537
560	428	499	662	445	378	472
580	450	608	834	663	468	520
512	383	472	572	521	383	460

Source: Government of India: Director General of Commercial Intelligence & Statistics: *Price & Wages in India*, 1898 & 1905.

Table I-A. *Average Monthly Wage of Able Bodied Agricultural Labor in Seven Districts at the end of each year 1873 to 1900*

Year							(In Rupees)
	Ganjam	Vizagapatnam	Bellary	Tanjore	Tinnevelly	Salem	Coimbatore
1873	3	3.75	4	2.95	6.25	2.5	5
1874	3	4.5	4	2.95	6.25	2.5	5
1875	3	4.5	4	2.48	6.25	2.5	5.5
1876	3	5	4	6.2	6.25	2.5	5
1877	3	5	6	4.28	6.25	2.5	5
1878	4	5	4	4.96	6.25	2.5	5
1879	3.75	5	4	2.95	6.25	3	5.62
1880	3	3.19	4	2.82	6.25	2.5	3.75
1881	3.75	3	4	2.3	6.25	2.25	5.62
1882	3.75	3.5	4	2.3	6.25	2.25	7.5
1883	3.75	3.5	4.18	2.14	6.25	2	7.5
1884	3.5	5	4.27	3.44	6.25	2.33	7.5
1885	3.5	5	4	2.95	6	2.67	7.5
1886	3.5	5	4	2.82	4.5	2.33	7.5
1887	4.69	3 to 6	5 to 5.62	4.06	4.5 to 6	3 to 5	3 to 7.5
1888	4.75	4.5	5.31	5.08	5.25	4	4.8
1889	3.75	4.5	5.31	6.09	5.25	3.67	5
1890	4.12	3.12	3.95	4.22	3.81	2.62	4.8
1891	4.19	3.57	4.12	4.77	4.09	2.62	5
1892	4.12	3.34	4.31	5.33	4.11	2.92	5.1
1893	4.31	3.17	4.31	5.06	4.11	3.06	5.07
1894	4.45	3.21	4.56	4.82	4.11	3.06	5.07
1895	4.5	3.27	4.56	4.88	4.11	3.21	4.5
1896	4.44	3.37	4.56	5.01	4.11	3.32	4.28
1897	4.5	3.31	4.5	5.19	4.12	3.37	4.56
1898	4.31	3.44	4.5	5.19	4.12	3.37	4.19
1899	4.12	3.44	4.56	5.12	4.62	3.31	3.81
1900	4.06	3.37	4.69	5.06	4.75	3.44	4.10

Source: Government of India: Director General of Commercial Intelligence & Statistics *Prices & Wages in India*, 1898 for figures from 1873 to 1883; later figures from *Prices & Wages in India*, 1905.

term rises may be due to temporary increases in employment, as on the construction of the railways or road-building. In Tinnevely and Tanjore emigration may also have brought about short-term fluctuations in wages though it is more likely, perhaps, to have influenced the longer term trends. Again, the rise in wages in Vizagapatam in 1888 was attributed by the Collector to emigration to Godavari district.⁹² In spite of all these rapid and short term fluctuations, the significant feature of the wage movements is the marked long term trend downwards.

For the seven districts, it is only in one, Tanjore, that real wages were higher in 1900 than in 1873. For the remaining six districts wages were substantially lower in 1900 than in 1873 and if, to even out temporary fluctuations, the averages of the first and the last three years are taken, there is still a fall. Taking an average of the years 1873-75 (before the 1876-78 famine) and 1898-1900⁹³ the decline in real wages amounted to 42% in Ganjam, 48% in Vizagapatam, 20% in Bellary, 41% in Tinnevely, 13% in Salem, and 39% in Coimbatore. The only exception was Tanjore where there was an increase in wages of 29%. In fact it is striking that for two of the districts, namely Vizagapatam and Coimbatore, there was actually a fall even in the money wages although there was a sharp rise in the prices of foodgrains throughout the Presidency over the period. These seven districts are not untypical, except for Tanjore, where it is likely that wages would have followed a different course than for most of the rest of the Presidency. It thus seems fairly certain that throughout the Presidency there was a tendency for wages to decline in real terms from 1875 onwards. This conclusion is all the more likely since it reinforces the findings that it was in this period that the pressure of population on the land began to be felt in certain districts of the Presidency.

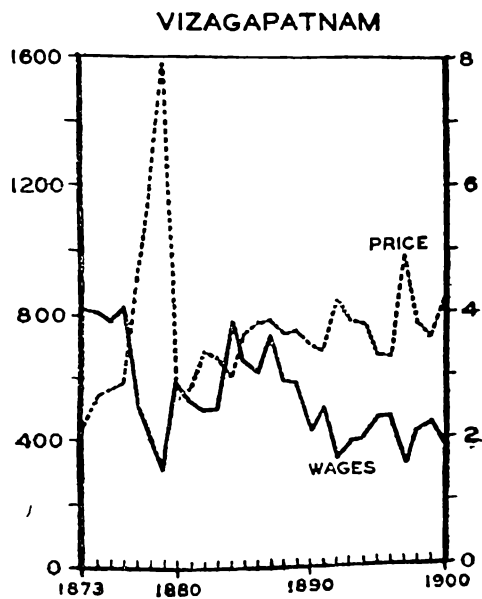
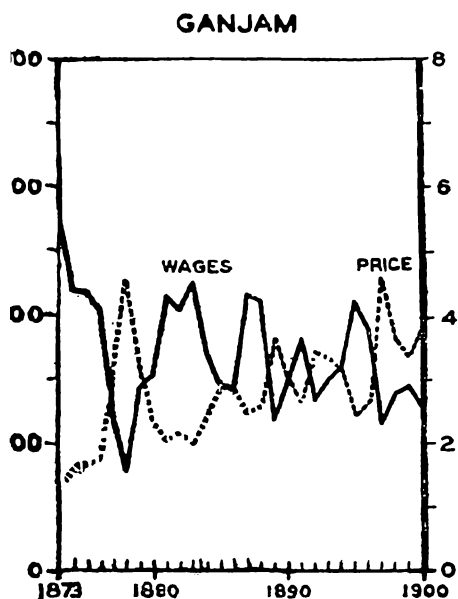
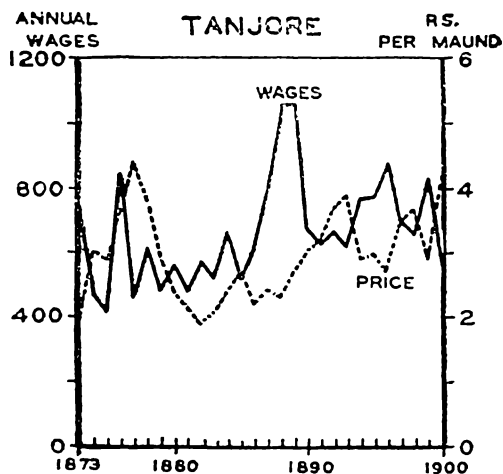
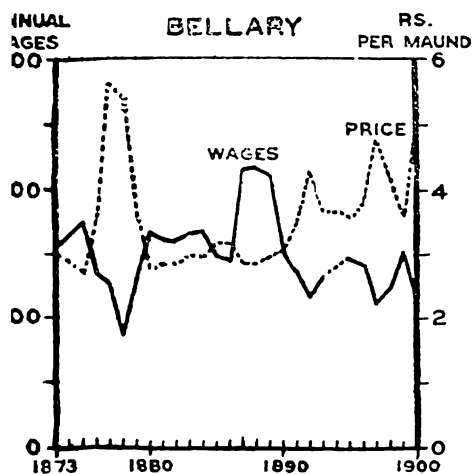
Taking the century as a whole, it would appear that wages tended to remain stationary. This stability in wages was reinforced by the fact that wages were paid in kind for the major part of the century, even to the casual labourers, and were generally paid at rates fixed by custom. In those areas where the conditions of the agricultural labourers most approached

⁹² P.B.R., 11.5.1889, N. 1853, Misc.

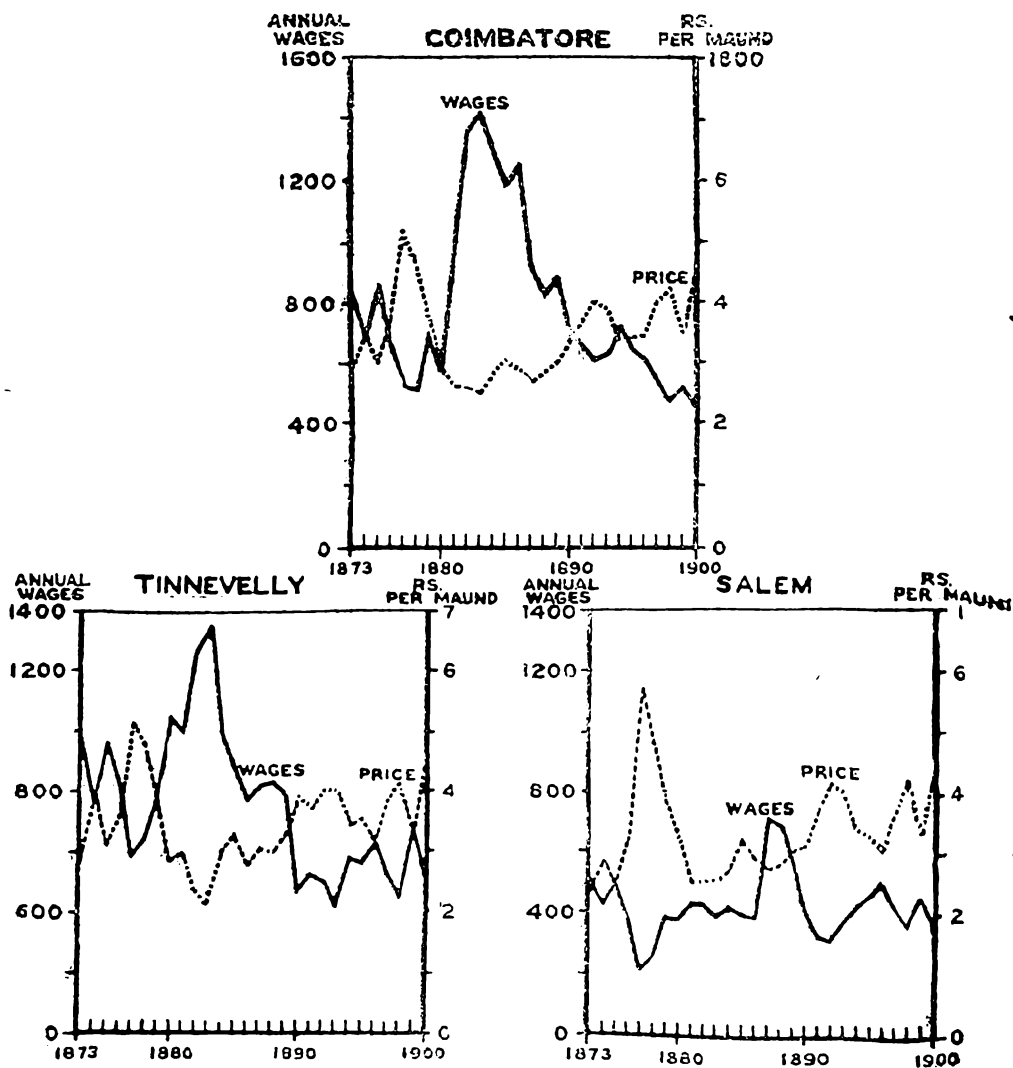
⁹³ It is true that there was a famine in 1896-97 also, but wages continued to be low, with minor fluctuations, in the first decade of the twentieth century.

slavery the wage rates showed the greatest stability. The attached agricultural labourers got from $1\frac{1}{2}$ to 2 seers of grain per day, together with small perquisites; the casual labourer got higher daily wages but his employment was more uncertain. The income of the family of both the attached and the casual labourer would depend on the actual period of employment of the labourer himself as well as of his wife and children, but it would seldom rise much above subsistence level, and it would fall well below this level in times of famine and scarcity, which were frequent. Wages did fluctuate, in response to movements in prices or to an increase of employment opportunities, but they fluctuated around an extremely low base, and during the last quarter of the nineteenth century a clearly declining trend manifested itself.

REAL WAGES [IN SEERS OF COMMON RICE]
& PRICES OF COMMON RICE [PER MAUND]



REAL WAGES [IN SEERS OF COMMON RICE]
& PRICES OF COMMON RICE [PER MAUND]



EARLY NINETEENTH CENTURY VILLAGE RECORDS IN GUJARAT

A. M. Saha, R. G. Shroff and A. R. Shah

The Department of Sociology, University of Baroda, recently surveyed the land records of some towns and villages in the Kaira district, Gujarat, now in the hands of village accountants and Taluka Mamlatdars. These records, which contain statistical information about land and throw light on land ownership, tenancy and crop pattern, are discussed here in detail.

The Department of Sociology in the University of Baroda began to take active interest in the use of historical records in sociological research with the beginning of Barot Village Project in 1955. A. M. Shah and R. G. Shroff were the investigators in the Project, and they had two main aims in the beginning: (1) to study the genealogical, historical and mythological records kept by the Barots, and (2) to make a field study of a village, Radhvanaj, in Taluka Matar, District Kaira. The Barot records are briefly described in a paper by A. M. Shah and R. G. Shroff, "The Vahivancha Barots of Gujarat: A Caste of Genealogists and Mythographers".¹

In order to study the problems of land ownership, tenancy and crop pattern in Radhvanaj, the investigators wanted to use the land records of Radhvanaj. As a general rule, the village accountant keeps with him in the village the land records of the current year and of about ten years past, while the earlier records are kept in the Record Room in the Taluka Mamlatdar's Office. After studying the records in the village, the investigators went to study the records in the Taluka Office at Matar. The records from 1895 to the present day are voluminous; for every year there are several registers dealing with various aspects of land administration. There are variations in the contents of columns and schedules in the registers prepared at various periods of time from 1895 onward, but the kind of information contained in them is substantially the same. An official publication, *Manual of Revenue Accounts*,² provides a detailed description of the entire system of village records in Bombay State for the above-mentioned period.

We found only two registers for the period 1866-1895, one for 1866-1894, and the other for 1894-95. Both of them are registers of measurement and ownership of land; the first one was prepared when the system of Revenue Survey Assessment was introduced in the village, and the second at the time of the first Revision Survey Settlement. A large map of each village, showing fields, tanks, wells, roads, etc., was also prepared in 1866. It may be added here that the Birth and Death Registers are also available from about 1879 onwards.

While the investigators were copying the above-mentioned records they were frequently told by a few villagers and by the copy clerk in the Record Room at Matar that there were some records still older. The copy clerk showed the records, and the investigators found to their great surprise that the records belonged to the period 1820-26 A.D., and contained not only statistical information about land as in later records but also information about several aspects of socio-economic life in Radhvanaj, the kind of information never found in any of the later records. The investigators got these records copied and are now using them in writing a comprehensive account of the social history of Radhvanaj from about 1800 A.D.

On account of the great value of these records in the study of social change, the Department of Sociology took up another project in July 1958 to study the changing social pattern in the Koli villages in Kaira District from 1800 A.D. The University of Baroda awarded a Research Traineeship to R. G. Shroff to carry out this project. The projects of Shah and Shroff are however concerned mostly with villages and only indirectly with towns. The Department of Sociology therefore took up another project in September 1959 to study the 1820-26 records of a town, Nadiad, in Kaira District, and the University appointed A. R. Shah as a Research Assistant to carry out this project.

A. M. Shah, R. G. Shroff and A. R. Shah are interested in the records of only those villages and towns which are relevant to their limited inquiries. However, in the course of their search for relevant records, they have come across records of other villages and towns in Kaira District. R. G. Shroff has also made a rough inventory of the records found in Taluka Offices at Anand, Borsad, Mahmedabad, Matar and Nadiad. This has enabled us to give here a general account of the records.

A. M. Shah has already given a brief description of the records and explained their significance in an article, "Social Anthropology and the Study of Historical Societies."³ The present paper deals with the records in greater detail.

II

The British acquired territory in Gujarat from the Gaekwads and the Peshwas. During the rule of the last two, land revenue was collected not by officials in the service of the government but through a hierarchy of intermediaries. The agents of the Gaekwad or the Peshwa settled the amount of revenue to be collected from a *pargana* (an administrative unit corresponding to a modern taluka) by an agreement with the Desai, the hereditary head of the *pargana*. The Desai in turn settled the amount of revenue to be collected from a village by an agreement with the Patel, the hereditary headman of the village. Frequently, there was an intermediary between the *pargana* headman and the village headman, a also between the Gaekwad's agent and the *pargana* headman. The village headman was supposed to collect revenue from the peasants according to the existing rates of assessment. The rates of assessment were intricately related with the social, economic and political system of the locality. Every intermediary from the village headman upward to the Peshwa's or the Gaekwad's agent had to give security of a banker (*manotidar*). The revenue system was thus related with the banking system from the village moneylender upward, through bankers in small market towns, to big banking firms in principal cities of Gujarat, such as Ahmedabad, Baroda and Surat. Every intermediary had his own accountants and record-keepers called Mehtas. Their records however did not belong to the Peshwa's or the Gaekwad's government, and the British therefore did not inherit local administrative records from the previous rulers.

The British continued for a few years the system of revenue administration they inherited. However, they gradually preferred to have direct relations with peasants. Only four or five years after the assumption of power, they discontinued the practice of settling revenue by agreement with the Desais, and began to settle revenue by agreement with village headmen.

The British began to consider the Desais as their own servants, who were required to help the Collector and his staff to arrive at proper agreements with village headmen. After another five or six years, particularly from 1814, the British began to appoint village accountants called Talatis, who were government servants paid from the government treasury, and not the servants of the Desai or the Patel. This step was taken with a view (1) to check the unauthorised activities of the village headman, and (2) to get accurate information about villages so that it would help the officials to assess revenue accurately. It is interesting to note that the village headmen of Nadiad *pargana*, the first *pargana* to come under the new administrative set-up, refused to enter into usual revenue agreements with the government as a protest against the appointment of village accountants by the latter. The protest was an organized effort; the headmen had held a meeting and resolved that if a headman entered into a revenue agreement with the government he would be excommunicated from his caste. The British officials imprisoned the leaders of the headmen and proceeded with the appointment of Talatis with a show of military force.⁴ Simultaneously with the appointment of Talatis, the British administrators began to prepare a land register for every village in 1816. Capt. Barnewall, the Assistant Collector in charge of this work, wrote in his report to the Collector: "The accounts in the possession of this department from the Patels, of the revenues of their villages, were in most cases framed in a way so complete and unsatisfactory as to be entitled to little or any confidence, and an individual and separate settlement with each cultivator became necessary to ascertain the true amount of his enjoyments and the rent he was equitably bound to contribute. The rental of the ryot being ascertained and completed, the next step was to attain a correct account of the lands actually in his possession. For this purpose, a survey was undertaken of each field numbered, and its name with that of its confines, the quality of the land it was rated at, or estimated to contain, together with the name of its proprietor or cultivator, were all recorded".⁵

The land registers mentioned by Capt. Barnewall are referred to as *Talati no Namoono* in other contemporary records. We have, however, not yet found a single land register in the offices we have so far visited. It is possible that these registers may

be discovered after a closer search than what we were able to make.

III

There are in the taluka offices in Kaira District a large number of hand-written books in Gujarati called Kalambandhis, which are contemporary with and related to the land registers mentioned above. A Kalambandhi book is a record, under different heads (*kalam*—head), of the details of the social organisation of a village in general and of its administrative organisation in particular. The following is a list of *kalams* generally found in a Kalambandhi book :

- (1) Accounts of taxes received by the government from the village and of the expenditure incurred by it in the village.
- (2) The revenue constitution of the village, i.e., whether the village is Inami, Udhad-Jamabandhi, or Girasia.
- (3) The period of lease for revenue collection.
- (4) The dates on which the *pargana* accountant received and signed the Talati's accounts, the population census, and the Kalambandhi book.
- (5) A comparative statement of taxes realised by the government in the present and preceding year.
- (6) A statement regarding various functionaries in the village receiving payment from the government in the form of cash or tax-free land.
- (7) A statement of the total revenue assessment of the village, and the names of the revenue contractors.
- (8) Detailed description of rules and regulations governing each tenure in the village.
- (9) A description of the internal management of the Wanta estates in the village.
- (10) A brief history of the Wanta estates in the village, the names of the Wanta-holders, and the size of the Wanta estates.
- (11) A detailed tabulated statement of the crops grown, the yield of each crop per bigha, and the rate of assessment for each crop.
- (12) A statement of the modes of remuneration paid to the various artisan and servicing castes and to the village servants.

(13) A statement regarding the protection-money paid to marauders.

(14) A statement of expenditure incurred by the government for administrative and other public purposes in the village.

(15) A census of population, houses, livestock, and agricultural implements, classified according to caste.

(16) Names of illegal occupants of land, and a statement of their claims.

(17) A statement of the established procedure for tracking the footsteps of thieves, and the names of the trackers.

(18) A description of the boundaries of the village, along with a sketch map; and a brief description of the customs of marriage payment, funerary expenses and inheritance of an heirless person's property among various castes.

(19) A record of tenancy, mortgage, and sale of land.

(20) Names of the dead wanta-holders and their successors.

(21) A record of orders issued by the Collector.

(22) Names of the receivers of religious allowances from the government.

(23) Names of the receivers of political allowances.

The above description of a Kalambandhi book applies to the Kalambandhi books of 1824. The Kalambandhi books were revised from time to time, sometimes at an interval of a year and sometimes at longer intervals. In a revised book, a few new *kalams* would be added, a few would be dropped, and in the case of a few others, there would be changes in the details recorded under the same *kalam*. In any one year, however, the Kalambandhi books of all the villages were written according to the same general pattern. Actually we have found a kind of manual containing the instructions to be followed in preparing a Kalambandhi book. For every village we find three to five Kalambandhi books. The earliest series belongs to the year 1819-20.

There are references to the land registers in the Kalambandhi books. We have, however, not yet been able to find references to the Kalambandhi books in any published book or in any English record in the Bombay Secretariat Record Office. It is therefore difficult for us to shed any light on the motives of the British administrators in preparing these voluminous records and on the procedures they followed in collecting information.

However, it seems that while the land register was a register of land and rent, the Kalambandhi was a register of rules, regulations, customs and usages.

Besides the Kalambandhi books for every individual village, we also get books based on the classification of Kalambandhi books of all the villages in a *pargana*. Each book of this kind contains the transcription of information recorded under a single *kalam* in the Kalambandhi books of all the villages in a *pargana* in a single year. Each of these books provides a comparative view of a single aspect of village life for all the villages in a *pargana* in a single year. We get, for instance, the information about functional castes in all the villages of a *pargana* collected in a single book. Similarly we get the censuses of all the villages tabulated in a single book. For any one year there are as many books as there are *kalam*s recorded in the Kalambandhi books of that year. If the Kalambandhi books of an individual village are missing, one can easily reconstruct them on the basis of these classified books.

IV

Another important type of records in the taluka offices in Kaira District are the Jarif books (*jarif* - survey) which embody the results of the Revenue and Topographical Survey of Gujarat of 1820-26. The survey was conducted under the superintendence of Captain Cruikshank, with the assistance of a few European and several Indian surveyors. During the survey of 1817 the area of a field was estimated and not measured, whereas during the survey of 1820-26 the area of every field was measured. There is one Jarif book for every village, and it contains the following items of information:

(1) A census of the village giving the following details for each family: name of the head of the family, the number of men, women and servants in the family, and the number of houses, livestock, ploughs, carts and wells owned by the family. The names of the heads of families are listed according to caste and religion, so that we get figures of population, livestock, ploughs, etc. for *each caste* and religious group. At the end of the census, the houses are classified according to the building materials used. No census of this kind is available after 1826, except

the censuses taken by field anthropologists in recent times. The genealogies provided by the bards allow us to study the kinship composition of each caste in a village.

(2) A table of births, deaths and marriages for five years preceding the year of the survey.

(3) A land register showing the following details for *each* plot of land in the village: name, area, boundaries, nature of soil, owner, tenant, crops grown in each season, acreage and yield of each crop, facilities for irrigation, the number of each kind of tree, and disputes regarding ownership, passage of irrigation. A study of the land register in relation with the census of a village provides a very good picture of the pattern of land ownership and tenancy in the village.

(4) A list of wells, showing for each well, the name of the owner, whether the well is built with bricks, and whether equipped with irrigation devices, an estimate of the amount of water in the well, and an estimate of the cost of repair or of constructing irrigation devices.

(5) A table showing the total area of land under each tenure, and the amount of revenue realised by the government from each category of land.

(6) A statement of rules, including the rates of revenue, for different land tenures.

(7) A statement of the rates of taxes and cesses other than land tax, and of hereditary dues and fines. In one village, for example, there were a plough-cess varying according to the cultivator's caste, a hereditary fine on the turbulent Rajputs and Kolis, cesses on artisans such as ropemakers and tanners, and a wedding-cess on the lower castes.

(8) A statement of the sources of miscellaneous income to the government, such as income from trees and manure, and from licences for selling opium.

(9) A table of current prices of various grains.

(10) A balance sheet of village accounts kept by the village accountant. On the credit side, the most important entries were regarding money realised from different taxes. On the debit side, the most important entries were regarding the money

sent to the government treasury, and the expenditure for administration, for protection from thieves, robbers, marauders, etc., for entertainment, and for social and religious activities of the village community.

(11) A brief account of the revenue administration of the village, year by year, from the date the village came under British administration (i.e., from 1802, 1803, or 1817, as the case may be) to the year in which the village was surveyed. It mentions who ruled over the village before the British acquire it. Then it shows, for each year, whether the revenue was collected through a revenue contractor or through the government officials, the amount of revenue assessed or contracted, the net amount realised, and reasons for an increase or decrease in revenue.

(12) Miscellaneous information, such as disputes regarding village boundaries, and the names of village headmen, village accountant, village leaders, and *pargana* accountant.

In addition to preparing the Jarif book in Gujarati, the surveyors also wrote remarks in English about every village. We saw two bulky volumes of such remarks among the archives in the Bombay Secretariat Record Office. The remarks refer to the general economic condition of the village, the general nature of agriculture, the condition of wells, bunds and canals, a history of the village, immigration and emigration, boundary disputes between villages, headmanship disputes, and the character and social status of the headman, of big landlords and of other village leaders.

Captain Cruikshank wrote general reports on the different *parganas* of Ahmedabad and Kaira Districts on the basis of the above-mentioned remarks on villages. The reports on a few *parganas* are published in two volumes, *Selections from the Records of the Government of Bombay*, No. X and XI.⁶ The unpublished reports are found among the archives in the Bombay Secretariat Record Office.

Cruikshank mentions in his reports that the surveyors prepared a map of each village, and of each *pargana* on the basis of village maps.⁷ Bishop Heber, who visited Gujarat while the survey was going on, had seen these maps and commented on their accuracy.⁸ Governor Malcolm also thought highly of them.⁹ We have, however, not yet been able to locate these maps in any office.

V

It has been mentioned in the beginning of this paper that we have worked on the records found in the taluka offices at Anand, Borsad, Matar, Mahmedabad and Nadiad. Although we have not gone to other taluka offices in Kaira District and the adjoining Ahmedabad District, we think there is every possibility of finding Kalambandhi and Jarif books in other taluka offices in these two Districts. Captain Cruikshank's published reports as well as the records in the Bombay Secretariat Record Office frequently refer to the Jarif records we have not so far found. It is also noteworthy that Ahmedabad and Kaira Districts formed a single District for a long time during the early British period, and they must have therefore the same system of records.

It is probable that records similar to the Jarif and Kalambandhi books of Ahmedabad and Kaira Districts also exist in Broach and Surat Districts, which were two other Districts under British administration in Gujarat. We have not made any attempt to search for such records in these two Districts. It is however quite certain that surveys similar to those in Ahmedabad and Kaira Districts were also carried out in Broach and Surat Districts. There is a lengthy report on the survey of Broach, Ankleshwar, Hansot, Jamboosar, Amod and Dehej *parganas* in Broach and Surat Districts, carried out between 1811 and 1820, in *Appendix to the Report from the Select Committee on the Affairs of the East India Company*.¹⁰ The report shows that the village records of Broach and Surat Districts were almost identical to those of Ahmedabad and Kaira Districts. In fact the survey of Ahmedabad and Kaira was a continuation of the survey of Broach and Surat.

The Gazetteer of Surat District, furthermore, informs: "A survey known as the *Shaksanani-mapni* was begun in Chorasi in 1815, but it would seem never to have been applied to revenue purposes. This was succeeded in 1823 by Captain Newport's survey, which, including the subdivisions of Olpad, Chorasi, Supa and Parchol, now Jalalpor, formed the basis of the settlements effected up to 1827".¹¹

In view of the above information, it is reasonable to hope that a search for the early nineteenth century records in Broach and Surat Districts will not be fruitless.

We have so far dealt with four out of the five British Districts in Gujarat ; the fifth one was the Panchmahals District. There is no likelihood of finding the records of early surveys of villages in this District because it had come under the British jurisdiction in 1868, before which it was under the jurisdiction of the Scindias of Gwalior.

We have no idea whatsoever of the early records about villages and towns in the numerous former princely states in Gujarat. The Gazetteers do not give information about such records in these areas. It is a matter of investigation whether such records exist in these areas or not.

VI

There is no doubt that the records we have described here are of great value to students of History and Social Sciences. They are useful in the study of not only what happened during and after 1820-26 but also of what happened before 1820-26. They should therefore be carefully preserved. At the present moment they are in a very bad state of preservation. This is chiefly due to the fact that they are under the jurisdiction of the Revenue Department. The government officials at the level of taluka offices have little regard for historical research, nor are they equipped with the knowledge and training in the latest methods of record keeping. Most of the clerks are ignorant about the fact that any such records exist in the Record Rooms under their charge. Every Record Keeper is supposed to put up a list of records under his charge at the entrance to the Record Room. The Jarif and Kalambandhi records are, however, never mentioned in such lists. And therefore the inspectors coming from the Collector's office also do not inquire about the existence of such records. As a result ignorance about these records prevails among almost all the officials in the District and the taluka offices. In some offices even the copy clerk is ignorant about the records. The only person who has a thorough knowledge of the whereabouts of the records is the peon in the Record Room! The first step toward proper preservation of the records is to transfer them from taluka offices to a suitable place under the jurisdiction of the Director of Archives. They should then be bound, repaired, classified and indexed by expert archivists.

REFERENCES

- (1) *Journal of American Folklore*, Vol. 71, No. 281, July-Sept. 1958, pp. 246-276, and *Traditional India: Structure and Change*, Milton Singer (ed), Philadelphia, 1959, pp. 40-70.
- (2) F. G. H. Anderson, Bombay, 1951.
- (3) *The Economic Weekly*, Special Number, July, 1959.
- (4) Bombay Secretariat Record Office, Revenue Department Diary No. 96 of 1814, Kaira Collector to Chief Secretary, 6-11-1814; Diary No. 102 of 1815, Kaira Collector to Chief Secretary, 17, 22 and 25-9-1815.
- (5) Bombay Secretariat Record Office, Revenue Department Diary No. 108 of 1816, Accompaniment to Kaira Collector's letter to Chief Secretary, 20-8-1816.
- (6) Bombay, 1853.
- (7) Op. cit., see the report on Nadiad *pargana*.
- (8) *Heber's Narrative*, Vol. II, London, 1828, p. 140.
- (9) *Bombay Gazetteer*, Vol. III, Bombay, 1879, p. 99.
- (10) III Revenue, London, 1833, pp. 783-841.
- (11) *Bombay Gazetteer*, Vol. II, Bombay, 1877, pp. 221-22.

THE SPREAD OF AGRICULTURE IN THE GANGES VALLEY

(As depicted in the Ramayana).

Dev Raj Chanana

In this paper Dr. Chanana, adopting an unorthodox line of analysis, puts forward some tentative hypotheses regarding the stages of economic development traceable in the Valmiki Ramayana. He postulates the co-existence of several ethnic groups,—a familiar and widely-accepted theory,—only some of whom had learnt the art of agriculture, the rest being still in the hunting and fruit-gathering stages. These hypotheses, if correct, would also help fix with some accuracy the precise period to which the Ramayana refers.

The Ramayana of Valmiki¹ contains numerous references to the economic conditions of the peoples it describes. The purpose of the present article is to piece together such scattered data in an attempt to discern a coherent picture of the stage or stages of economic development of these peoples and to analyse the significance of their geographical distribution. The uncertainty regarding the date of redaction and authorship, the numerous interpolations, its compilation at a date evidently much later than the period to which the work refers,—all detract from the value of the Ramayana as a source of dependable historical information. Such limitations notwithstanding, a certain portion of the available data obviously hangs together and presents a logically consistent picture. In selecting data with the object of drawing a discernible outline, the present author has been guided by considerations of such logical consistency and by way of illustration, at least in some cases, care has been taken to explain why data inconsistent with the general picture otherwise available are not acceptable historically.

A detailed analysis of such data, in the opinion of the present author, enables one to trace the spread of agriculture in Northern India generally and in the valley of the Ganges in particular. As the process can be verified by archaeology, it may be possible,

not only to fix the broad landmarks in the spread of cultivation in the valley of the Ganges but also to have some idea of the period of the Rama-katha itself.

The people described in the Ramayana can be divided into three groups, namely, the Naras, the Vanaras and the Rakshasas. They are stated to have occupied separate areas and to have followed different ways of life. A study of the regions occupied by them yields information as follows:—

1. *Habitat*

a. *The Rakshasas*

We find them first of all, in the forest land between Ayodhya and Mithila. Their chief, Sunda, is no more; his place is taken by his spouse, Tadaka. They occupy another area near Mathura, obviously forest land, known as Madhuvana. Lavana is their leader here. Apart from these two regions, they do not seem to have posed any threat elsewhere in the valley of the Ganges.

Across the Yamuna, however, they are still found in considerable strength. Beyond Chitrakuta in the Dandakaranya, they are living in large numbers as also singly. Khara and Dushana are said to have led a big horde while Viradha and Maricha² are stated to have been living alone and free from the threat of attacks from people hostile to them. Apparently some, at least, of their women-folk could also roam about the forests *alone* (cf. Shurpanakha). Judging from the examples of Viradha and Shurpanakha, they were unarmed while wandering from place to place and did not require the protection of any arms such as the bow and arrow or the sword.

We do not know if the Rakshasas occupied some pockets in areas inhabited by the Vanaras, but apparently they knew the land well, because the route to Lanka, passing through this area, was considered so safe by them that even their women could venture there alone and without fear of molestation.

Besides the Rakshasas, some other allied peoples lived in these areas. It is reasonable to suppose that the words *asura*, *nisacara*, *yatudhana*, *nairrita*, *ksanada-cara*, *rajani-cara*, etc. could not have had, all of them, their origin merely as synonyms of the word *Rakhasa*. Of another word, i.e. *danava*, used more or less as a

synonym, we are sure that it did represent a separate, though allied people, as Maya is described as being the chief of the *Danavas*³ and not as a chif of the Rakshasas.

b. The Vanaras

Beyond the Dandakaranya, lay the pale of the Vanaras and certain other peoples allied to them. Tre Rikshas are the most prominent among these latter. As in the case of words listed as synonyms of the word Rakshasa, here also the indentify of certain allies of the Vanaras lies hidden under the words *hari*, *kapi*, *plavaga*, *plavangama*, *markata go-langula*, etc. The separate identity of at least two of these variously named peoples, i.e. the Vanaras and the Rikshas, can, however be definitely established. The poet describes them as inhabiting almost all the mountains of India;⁴ this may or may not have been exact. But there is no doubt that they did inhabit the plateau-land beyond the Dandakaranya.

We may note here that the Vanaras and the Rakshasas had had some conflicts earlier, as represented by an early fight between Ravana and Valin and by another between Valin and Dundubhi. At the time of the Rama-katha, however, they seem to have been living in peace, though without much intercourse.

Comparing the habitat of these two peoples it can be said that the former lived in certain forests situated in the valley of the Ganges (cf. Tadaka and Lavana) and also occupied a great part of the forest land in the Deccan. The Vanaras, on the other hand, had no habitat in the valley of the Ganges and were found only south of the Vindhyas.

c. The Naras

These people are found in large numbers in certain areas of the valley of the Ganges.⁵ They occupy Ayodhya and the surrounding regions, Mithila and the area around it and have already established themselves in an area called the Kosala Janapada, to the south of Ayodhya.⁶ This Kosala Janapada is described as "full of people, rich in grains and wealth, charitable, good-hearted, fearless, having *chaityas* and *yupas*, mango orchards and ponds full of water." They also had plenty of

cattle.⁷ Kaushalya was from this area. Her brother Shatrunjaya is called a Naga.⁸

An idea of the density of population and the extent of agriculture in this region can be had from a close study of the journey of Rama to the forest. At the end of the first day, he reaches the Tamasa river,⁹ whose banks are full of cattle,¹⁰ presumably belonging to Ayodhya and its villages. The end of the journey on the second day brings him to the frontier and to the Kosala Janapada. The third evening finds him on the Syandika river, where he addresses the inhabitants of Kosala. Thereafter the route lies through virgin forest.

Beyond the Kosala Janapada, the Naras are represented by the Dasas, found in a group, on the bank of the Ganges. These people, to judge from their contact with others, could have practised agriculture. Guha, their chief, is said to have brought "good *anna*, food of different kinds" for Rama. He also provided fodder for the chariot-horses.¹¹ Elsewhere the Dasas are called the "eaters of meat, roots and fruits."¹² Guha brings for Bharata fish, meat, and liquor and says that this food consisting of "roots, fruits as also forest-meat, dry and fresh, has been procured by the Nishadas themselves."¹³

Thereafter, across the Ganges, the Naras have as their representative, Bhardvaja, who lives in his hermitage. His establishment is big enough to have stood host, even though for a short while, to an army.¹⁴ Similarly the army of Vishyamitra is said to have been entertained by Vasistha in his *ashrama*.¹⁵

The river Yamuna is to be crossed by swimming or on a make-shift float.¹⁶ Obviously the small amount of traffic with the forest land across does not allow for the settling of boatmen at this place. As already seen by us, the Dandakaranya is all *nir-jana* (without men) but not *nir-Rakshasa* (without Rakshasas). The existence, however, of the hermitages, points to the steady encroachments being made by the Naras on the jungle land.¹⁷

d. Certain Other Peoples

i. The Nagas

We come across two types, one of which was the mythical, represented Surasa, the mother of the Nagas, *naga-mata*. She is

said to have tested the prowess of Hanuman, when he was flying across the ocean to Lanka. The other type is obviously, human. One of them is Shatrunjaya, the maternal uncle of Rama, who lived in Kosala. (*supra*).

ii. *The Hastins and the Gridhras*

A solitary verse in the epic informs us that in an earlier epoch the Vanaras and the Hastins had been involved in a mutual struggle and that the Vanaras would chase them as far as the Ganges.¹⁸ As these Hastins are mentioned nowhere else in the Ramayana, it seems that their number had already dwindled a great deal.

The Gridhras are represented only by two brothers, Jatayu and Sampati, who lived on the extremity of the Dandakaranya. The absence of any other person belonging to this group is intriguing. Were they already on the way to extinction? Needless to say that unlike the Nagas, the Hastins and the Gridhras were forest-peoples.

From the details given above regarding the habitat of these peoples, it emerges that in a number of cases the Rakshasas and the Naras lived in contiguous areas and that the intrusion of the latter into the forests generated ill-feeling and hostility. Differences in social custom and organization, which probably had an economic as well as an ethnic basis, accentuated the existing hostilities. The epic does not yield much reliable evidence regarding the occupations of the Rakshasas, but the description of the occupations of the Naras would seemingly justify the inference that the Rakshasas were in a pre-agricultural stage of development. Certain facts about the social life of both the Rakshasas and the Vanaras also can fit in only with a society which had not reached the stage of agriculture.

II. *Occupations*

a. *The Naras*

The most detailed descriptions of the Naras relate to their society established in and around Ayodhya. Even a cursory glance at the Ramayana will reveal the existence of cultivation around Ayodhya and its *total* absence in and around both Kishkindhya and Lanka.

The town of Ayodhya and its environs are described in a number of passages of Bk. II. Thus, on learning of the projected departure of Rama for the forest, the inhabitants "leaving their gardens, *fields* and houses" started talking of following him.¹⁰ On his way out of the town, Rama saw "villages with *fields* ready for sowing" and "heard the voices of people living in the villages. . . ."²⁰ The poet adds that Rama left the environs of Ayodhya while hearing the voices of those living in the villages.²¹ The existence of villages in the realm of Ayodhya is also attested in such statements as the one in which it is said that "whenever Rama goes to fight for a *village* or a town. . . ." he never comes back without victory²² That cultivation was a known and widely practised occupation of these people can also be noted when we find the citizens of Ayodhya, ready to follow Rama into exile, "abandoning their gardens, fields and houses".²³ The same fact is confirmed when we learn that Dasharatha's treasure consisted partly in cereals; on the eve of Rama's departure for the forest he issued orders that "his store of *grain* and wealth . . . may be sent after him"²⁴ The verse ascribed to Lakshmana wherein it is said that Kaushalya has "one thousand villages" of her own is also relevant in this context.²⁵ Similarly on hearing of the impending return of Rama from Hanuman Bharata offers to the messenger, among other things, "a hundred villages and a hundred thousand head of cattle".²⁶

We may add that after departure of Rama and the demise of Dasharatha, the need for a new king is shown to be very great as "in a janapada without king, handfuls of seeds are not sown."²⁷ A little later, it is said that in a kingdom with its king at the helm of affairs, "those living by agriculture and the tending of cattle, sleep with their doors wide open".²⁸ When Bharata meets his elder brother in the forest, the latter asks him, among other questions, "If all those living by agriculture and the tending of cattle are dear to you? Do the people enjoy increasing prosperity in *varta*?" (*i.e.* agriculture, cattle-rearing and commerce).²⁹ Therefore it can be inferred that this society knew and practised agriculture as also the domestication of cattle.

b. The Rakshasas

In contrast we find no signs of agriculture in or around

Lanka, the "city" of fabulous wealth. When Hanuman lands on a mountain in Lanka, he sees "bois, parks . . .," and Lanka "situated atop a hill".^{30,31} Later the poet talks of the "bois, parks and gardens of Lanka" which Hanuman had come to see.³² As the Vanara goes all over the place a number of times, the poet would have mentioned signs of cultivation, had there been any. But evidently there were none. The Asoka-vatika had only trees, full of blossoms and fruits ripening during all the seasons.³³ We may, therefore, conclude that for the poet of Ramayana, Lanka did not know of agriculture at that time.

Digressing a little, it may be observed that although Lanka is called a *nagari*, a city, we find the word *paura*, citizen used rarely for any of its inhabitants,³⁴ and the words like *janapada*, *jānapada*, etc. are never used in such contexts. No merchants seemed to live in Lanka. There is no sign of the four castes, *caturvarnya* in that place. Along with the absence of the merchants goes the lack of stores of commodities in that "town". Similarly no prostitutes are to be seen there, and this despite the alleged penchant of the Rakshasas for women. All this points to a tribal society rather than to a monarchy, headed by a hereditary king. This impression is again corroborated by the use of the word, *gana* for the Rakshasas or their army,³⁵ which is not used for the people of Ayodhya. The verses deploring the defection of Vivhishana,³⁶ can be appreciated only by keeping in view the poet's statement that "it is difficult to sow seeds of dissension among the Rakshasas."³⁷

c. The Vanaras

The position of Kishkindhya is also different from that of Ayodhya. It is described as a "fort", in the midst of hills: "Kishkindhya, the *durga* amidst the hills."³⁸ As there is no description of cultivation in these cantos, we presume its absence because its existence would have been noticed, for example, where the area outside Kishkindhya is described.

Some of the adjectives used for Kishkindhya may also be noted here. It is called a "cave in the mountain" and generally a "cave".^{39, 40} Vanaras were generally known to be inhabiting the mountains is stated over and over again.⁴¹ Elsewhere they are described as residing in "pleasant forests . . . and

near the hermitages of the ascetics".⁴² The Vanara horde, assembled for participation in the search for Sita, had come from "forests, deep pits and river-banks".⁴³ The epithets commonly used in the context signify "inhabitants of forests."⁴⁴

Our division of these three groups into two types, *i.e.* cultivating and non-cultivating is further supported by some of the habits and social customs of the various peoples. As food will tend to show the occupations of people who have not gone beyond cultivation, let us, first of all, examine the food-habits of these three groups. We begin with the Vanaras who seem to have been the least evolved of the three.

III. Remarks on Food

a. Food of the Vanaras

The Vanaras are called the "eaters of fruits". They lived on "roots and divine fruits" and also drank a great deal of the *maireya* wine.⁴⁵ When Lakshmana enters Kishkindhya to remind Sugriva of his promised aid in searching for Sita, he is, first of all, met by Tara, who has an "an unsteady gait and whose eyes are turning on account of liquor".⁴⁶ Further the Vanaras are said to procure for their subsistence certain fruits and roots, which once eaten, satisfy hunger for a month.⁴⁷ The Kancana mountain, inhabited by the Vanaras led by Kesara, has trees bearing fruits in all seasons and is also well provided with various intoxicating liquors.⁴⁸

The dependence of these peoples on naturally growing fruits, roots and tubers is also supported by the existence of a reserved park of fruit trees called Madhu-vana, which was said to be "inherited from father and grand-father, was divine and inaccessible even to the gods". Access to it was barred and it had never been opened to the Vanaras for use at pleasure.⁴⁹ Elsewhere we find Hanuman swearing by "roots and fruits", the commentary adding that "he swears by roots and fruits, the means of subsistence for his life."⁵⁰ Rama grateful to the Vanaras for their invaluable help, asks Mahendra to ensure in all regions "inhabited by the Vanaras, the out-of-season blossoming of flowers and ripening of roots and fruits and the flowing of rivers with clear water."⁵¹ Apparently these forest-people had been vulnerable in days of scarcity of these commodities.

b. Food of the Rakshasas

We are already aware that the Rakshasas were meat-eaters, sometimes even being called "cannibals". This fact of meat-eating by the Rakshasas emerges easily from a study of the Ramayana. In the drinking-pavilion, *pana-bhumi* of Ravana, Hanuman saw heaps of deer-meat, buffalo-meat as also pork. There were also peacocks and cocks ready to be consumed. The meat of wild boar had been seasoned, before being cooked, with curds and *sochala* salt and the deer and peacocks had been roasted on spits. Similarly had been roasted buffaloes and there were also goats, hare, lizards lying half-eaten.⁵² The food gathered for Kumbhakarna included heaps of deer, buffalo and wild boar meat.⁵³ Not only does this exaggeration in the description of the food of the Rakshasas flow from latter-day interpolations but the extremely rare references to grains in their food, also seem to owe their origin to the same source. Thus in the food gathered for Kumbhakarna, a *miraculous* heap of food is mentioned.⁵⁴ Rice, parched rice, tila and *modakas* are also mentioned five or six times. Thus Kumbhakarna received showers of parched rice, *lajah* and perfumed water when he led Sugriva as a prisoner.⁵⁵ Again in the funeral ceremony of Ravana, *lajah* are mentioned.⁵⁶ Then Vibhishana gave his departed brother *tarpana* of tila and *darbha*.⁵⁷ Earlier Meghnada was disturbed while offering *lajah*, etc. to the Fire-god in a special sacrifice.⁵⁸ Lastly, in the coronation ceremony of Vibhishana, curds, rice, *modakas* and *lajah* are said to have been used.⁵⁹ It should be noted that these are the *only* references to food-grains in Lanka. The absence of cultivation in this area makes it improbable that the Rakshasas could have used such items of foodstuff and it is possible that the descriptions containing such references are modelled on the ceremonies of Ayodhya.⁶⁰ This absence of food-grains in forest-land is quite a normal feature of such regions as in such places only those having supplies of labour at their disposal, like the rishis running the hermitages, could have had stocks of food-grains at their disposal. This is corroborated by the means of subsistence available to Rama and his companions during their exile. Across the Ganges, their first meal is that of a hunted deer, roasted on a small bonfire.⁶¹ Bhardvaja advised the trio to go and reside in Chitrakuta, where

there was plenty of "*madhu* (honey), *mula* (roots) and *phala* (fruits)".⁶² Sita, while welcoming Ravana, come in the garb of a hermit, says: "My husband will soon be coming back with plenty of forest-food, in the form of meat, having killed *ruru* deer, the iguana and the wild boar."⁶³ Later, Hanuman comforts Sita in captivity by saying that since her abduction Rama has stopped taking meat and liquor.⁶⁴

It is therefore legitimate to infer that both the Vanaras and the Rakshasas knew of no cultivation and ordinarily lived by gathering fruit, root and tuber, chase and probably fishing. We will now add a few remarks about certain social customs typical of the people in question as these customs further suggest our inference is correct.

IV. Certain Typical Social Customs

a. The Vanaras

The first thing to note about them is the comparative freedom enjoyed by women among these peoples. Tara and Ruma, the two Vanara women known to us, are able to share the bed of Sugriva when Valin is thought to be lost, that of Valin, when Sugriva is running for his life and of Sugriva again, when Valin is killed. They participate in all the pleasures of life, on an equal footing with their mate, Sugriva. Further Tara is, at times, shown to handle the 'affairs of state' as when she intercedes on behalf of Sugriva, with the irascible Lakshmana.⁶⁵ That the relations between the two sexes were relatively freer, is also hinted at in the episode relating the birth of Hanuman, who was begotten on his mother, Anjana not by her mate Kesari but, in his absence, by Vayu, the Wind-god.⁶⁶ No stigma, however, seems to have attached to this birth.

The use of the word, "*pita*" for Sugriva by Angada and more particularly of "*yaviyan pita*" (younger father),⁶⁷ reminds us of the word. "*culla-pita*" (younger father) of certain Pali texts. This may be indicative of the sharing of women by brothers, at least at an earlier stage.⁶⁸

b. The Rakshasas

It is strange that the only woman of note living in Lanka, namely Mandodari, the spouse of Ravana, is shown to be almost a carbon-copy of any higher class woman of Ayodhya. But in Kishkindhya no ordinary woman is described, here a number of them are depicted. Thus the women guarding Sita are quite well delineated, though in conventional terms.⁶⁹

A noteworthy fact about these people is the practice of their women taking part in fights. Tadaka, despite the one-sided picture available emerges as a brave fighter, who fell fighting against two men, armed with bows and arrows, a weapon not used by her. After the death of her husband, Sunda, at the hands of Agastya, she had been leading her people in the forest between Ayodhya and Mithila.⁷⁰ Another Rakshasa woman to challenge a man is Simhika. She is said to have given a good fight to Hanuman.⁷¹ Another woman fighter of the Rakshasas is Sarama.⁷² The gate of Lanka is guarded not by a male warrior but by a woman, Lanka by name. She is strong enough to attack a redoubtable fighter like Hanuman.⁷³

Besides the presence of women fighters among these people, it may be noted that their women-folk, in general, need not remain tied to any one man. That is why Ravana finds it difficult to reconcile himself with the persistent refusal of Sita. He tells her that abducting a woman, the wife of another, and taking her to bed, is quite normal among the Rakshasa people.⁷⁴

c. The Naras in Ayodhya

As against these facts showing the lack of *absolute* male superiority in Lanka (and also in Kishkindhya . . . more exactly speaking, among the Vanaras and the Rakshasas), the upper stratum women of Ayodhya are shown to be, more or less, under the complete control of their men folk.⁷⁵ This can be feasible only in a stationary society and not among tribal nomads. It seems that our poet regarded the three people as ethnically distinct from one another and as speaking different languages. Rama, for example, pays a compliment to Hanuman on his faultless expression in a language alien to him, when Hanuman was speaking

Sanskrit. Again, the complaint of Dadhimakha, the guardian of the fruit-reserve of the Vanaras is understood only by Sugriva; Rama and his brother have to wait for an interpretation.⁷⁶

V. Primitive Means of Fighting

This picture of cultural differences may also be completed by certain details about the weapons for fighting adopted by these various peoples.

a. The Vanaras

Time and again they are called "having nails and molar teeth as weapons".⁷⁷ They are shown as making full use of their hands (fists) and feet as in the fight between Sugriva and Valin or in the fight between Valin and Mayavi.⁷⁸ When fighting from a distance, they use pebbles, stones and any other missile that comes in handy. They also make use of branches of trees and even of tree-trunks to fight their enemies. This is described in phrases such as "they release rocks from hill-tops".⁷⁹ In the Yuddhakanda, Angada is depicted as weapon-less . . . "having only noils and molars".⁸⁰ In his fight against the Rakshasas of Lanka, Bk. V., Hanuman has no weapon of his own; he relies on what he can get on the spot.

b. The Rakshasas

They are depicted as having mastered all sorts of weapons and are shown as having made full use of them. It may, however, be pointed out that this mastery in the use of almost all the weapons then available is restricted to some of their chiefs. In any detailed description of a fight, only some of them are shown as handling numerous weapons.⁸¹ The rank and file fight like the Vanaras, that is with fists, stones, clubs, etc. In fact even some of their chiefs have only a lance, *shula*, for weapon, as in the case of Lavaṇa.^{82,83}

VI. Conclusion

Thus the Ramayana describes two principal groups of human beings living at two different levels of culture. Following the narrative, we learn that the agriculture-practising people are

advancing on all sides, occupying forests, clearing them and putting the land thus obtained under the plough.

The pioneers among them are the *rishis* running their hermitages, which support the inmates by means of cultivation and domestication of cattle. The foremost among them, Agastya, is now living at the farthest point in Dandakaranya and is probably the same person who before the birth of Rama, put Sunda, the mate of Tadaka to death. The existence of hostility between him and the Rakshasas is also attested in the revengeful destruction of two settlements of Maladah and Karushah by Tadaka.⁸⁴ Rama is said to have been born at such a time. The statement of the cultivators, though exaggerated, refers to the same state of affairs: The Rakshasas are killing the Vanaprasthins . . . living as far as the Pampa river, near the Mandakini as also near Chitrakuta.⁸⁵ These hermits, instead of fighting themselves, call on their kings to fight their battles. Agastya is said to have given a bow and arrow as also a sword to Rama for killing the Rakshasas.⁸⁵ Later Cyavana informed Shatrughna of the forces of Lavana⁸⁷ Vishyamitra carried to Ayodhya the news of Tadaka's ravages and Bharadvaja was their best informant this side of the Ganges.

In this way assisted by their vanguard, the cultivating peoples, as represented by their hero, Rama and his brother, Lakshmana, bring about the destruction of the armed might of the Rakshasas, the principal occupants of these forest lands. The process starts with the killing of Tadaka; after her death, "peace" reigns in the area between Ayodhya and Mithila. There was already no serious resistance south of Ayodhya as far as the Ganges. After the death of Khara and Dushana, the cultivated areas of the hermitages could have expanded without any serious let or hindrance. The fear of powerful Rakshasas was removed with the death of Viradha and Marica.

The stronghold of the supreme chief of the Rakshasas, Ravana, lay farther south. The destruction of the "fort" as also that of the chief himself with his family, removed the last possibility of violence, likely to discourage the forward march of agriculture. This southward expedition, however, left a pocket in the valley of the Ganges itself. On becoming king, Rama had it destroyed by Shatrughna, who killed Lavana, the chief Rakshasa inhabiting the forest of Madhuvana, around Mathura.

Viewed in this light, the Rama-katha assumes a new significance for us. It reveals the fact that the life-span of Rama had coincided with the elimination of the Rakshasas living in the forests who had been hostile to the cultivators and therefore to agriculture. In this context and without reading too much into it we may be allowed to remark that Janaka, the ploughman king, gave Sita, the furrow, to Rama in marriage. Ravana, chief of the non-cultivating Rakshasas, abducted Sita, and Rama rescued her after a long and bitter fight. Thereafter everybody could live in peace, —could ply one's furrow in peace. We may add that the name of one of the ancestors of Rama, a ruler of Ayodhya as An-aranya, No-forest!⁸⁸

A comparison of these few pockets of cultivation in the valley of the Ganges with the area of cultivation as described in the Mahabharata (taking only those regions of the Ganges valley, which were ruled by the princes belonging to the Kaurava and Pandava families) shows us that during the intervening period, cultivation had spread farther. If this were compared with descriptions in latter-day texts, such as the Pali *Jatakas* and the Arthasastra, it might be possible to reconstruct the story of the spread of agriculture in the Ganges valley. Such reconstruction from literary sources could be verified with the help of data made available by archaeology,

As regards the date for the Rama-katha, one may argue as follows:—the lowest limit for the date of Mahabharata, the great battle is near 1000 B.C. It may therefore be reasonable to give a margin of at least 500 years for the spread of agriculture between the two great events. This will give a date of about 1500 B.C. for Rama-katha. As observed earlier, any such hypothesis is subject to verification by archaeology.

[*Publisher's Note:* Owing to unavoidable circumstances the diacritical marks have been avoided.]

N.B. After having written this article I came across the lines given below, in an essay of Tagore. I quote them as they may be of interest to the reader:

The basis of the Vedic wars was cattle-lifting while the basis of the war of Ramayana is the abduction of Sita, that is to say, attacks on cultivated areas. That Ramachandra is the symbol of the agriculture-protecting heroism is proved by his well-known dark colour, like that of fresh *durva* grass.

"The point to note herein is that the story at one time was the triumphal song of the protection of cultivation and of its spread; later on that very story of Ramayana specially developed as the eulogy of the domestic life".

"Bharata-varshiya Vivaha"
(our translation).

¹The Bombay edition of the Ramayana has been used throughout. Italics throughout are ours.

²Was Marica the son of Tadaka? cf. I, 25.

³Mayena danavendrena..... VI, 7, 7.

⁴VI, cantos 26 and 27.

⁵We are leaving out, for the time being, the presence of similar people in the Indus valley as shown by the description of the Kekaya kingdom in this epic.

⁶Between Ayodhya and Mithila: Mithila has a ploughman king, Janaka, the Sira-dhvaja, having the plough for his flag. But Ayodhya, judging from a verse in Bk. I, was built by Manu, the primeval Man himself. The verse is as follows:

Ayodhya nama tatra asit nagari loka-visruta,

Manuna manavendrena ya puri nirmita svayam, I, 5, 6.

Was it then the first settlement of the cultivators in the valley of Ganges?

⁷tato dhanya-dhanopetan dana-sila-janan sivan,
akutascid-bhayan ramyan caitya-yupa-samavritan,
udyanamra-vanopetan sampanna-salilasayan,
tusta-pusta-janakirnan gokulakula-sevitan, II, 59, 8-9.

⁸II, 32, 10.

⁹II, canto 45.

¹⁰Gokula-akula-tirayan tamasayah...II, 46, 17.

¹¹II, 50, 37 and 40.

¹²mamsa-mula-phalasanah, II, 94, 7.

¹³ardram ca mamsam suskam ca vanyam ca uccavacam mahat, II, 84, 17.

¹⁴II, canto 91.

¹⁵I, canto 53.

¹⁶III, 6, 15-20.

¹⁷Such people go to the forest equipped with "spade and basket" (Lakshmana to Rama: "I will precede thee, equipped with a bow, a spade and a basket." II, 31, 25). In the story of Asamanja, we find the hero wandering in the forests having a spade and a basket for his equipment, II, 36, 25. There is also the reference to the poor brahmin, Trijata who would go daily to the forest with his ploughshare, spade and plough and thus earn a pittance, II, 32, 29. Such implements are totally missing in the case of the Rakshasas, who were living permanently in the forests.

¹⁸yo gangam anu-paryeti trasayan hari-yuthapan,

hastinam vanaranam ca purva-vairam anu-smaran, VI, 27, 25.

¹⁹udyanani parityajya ksetrani ca grihani ca, II, 33, 17.

²⁰graman vikrista-simantan, II, 49, 3-4.

- ²¹srinvaṇ vaco manusyaṇam grama-samvasa-vasinam. II. 49. 8.
²²yada vrajati samgramam gramarthe nagarasya va. II. 36. 2.
²³udyānani parityajya ksetrani ca grihani ca. II. 33. 17.
²⁴dhanya-kosasca yah kascid dhana-kosasca mamakah. II. 36. 7.
²⁵yasyah sahasram gramanam sampraptam upajivinam. II. 31. 22.
²⁶gavam sata-sahasram ca gramanam ca satam param. VI. 115. 41.
²⁷narajake janapade bija-mustih prakiryaṭe. II. 67. 10.
²⁸narajake janapade dhanavantah suraksitah.
 serate vivrita-dvarah krisi-go-raksa-jivinah. II. 66. 18.
²⁹kaccitte dayitah sarve krisi-go-raksa-jivinah.
 vartayam samsritas tata loko hi sukham edhate. II. 100. 47.
³⁰V, 2. 8.
³¹V, 2. 19; 2. 48. 55; 3. 2-13.
³²vanani upa-vanani iha lamkayah kananani ca. V. 3. 34.
 *Subsequent to the writing of this article I learn that the word *naga* in this verse is in the accusative meaning "an elephant". Therefore the inferences based on this verse should be taken as dropped.
³³saravartu-kusumai ramyam phala-vadbhisca padapaih. V. 15. 5.
³⁴It is used only once in VI. 112. 20.
³⁵48, 16; 43. 16.
³⁶guna-van va para-janah sva-jano nirguno'pi va.
 nir-gunah sva-janah sreyan yah parah para eva sah. VI. 87. 15.
 This is to be contrasted with later times when, as in Mahabharata, Salva, the maternal uncle of the Pandavas fought against them and on the side of the Kauravas and it was not taken as something bad.
³⁷avakaso na santvasya rakshasesu abhi-gamyate.
 na danasya na bhedasya nava yuddhasya drisyate. V. 2. 27.
 (It is not possible to bring the Rakshasas to heel by persuasion. nor can they be controlled by gifts; division among them can not be easy and they are hard to fight.)
³⁸IV, 26. 41; 31. 16.
³⁹giri-guha. IV, 26. 7.
⁴⁰guha. *ib.*, 25. 20; 26. 10; 33. 4.
⁴¹maha-saila-guhavasah. *ib.*, 37. 6. (living in the caves of big mountains); also see *ib.*, 60. 33, *etc.*
⁴²vanesu ca suramyasu sugandhisu mahatsu ca.
 tapasanam ca ramyesu vanantesu samantatah. IV. 37. 8.
⁴³vanebhyo gahvarebhyasca saridbhyasca. *ib.*, 37. 26.
⁴⁴vanaukasah, kananaukasah. *ib.*, 68. 21; 61. 7.
⁴⁵pibanto madhu maireyam. *ib.*, 37. 7.
⁴⁶sa praskhalanti mada-vihvalaksi. IV, 33. 38.
⁴⁷tadanna-sambhavam divyam phalam mulam manoharam.
 yah kascida sakridasnati masam bhavati tarpitah. IV, 37. 30.
 In the Garhwal region of the Himalayas, certain Sadhus are said to live on a root, which satisfies hunger for several weeks. See *Saptahik Hindustan*, New Delhi, 24 July, 1950, p. 19ff.
⁴⁸sarva-kama-phala vriksah sarve phala-samanvitah.
 madhuni ca maharani yasmin parvata-sattame. VI. 27. 36-7.
⁴⁹pitri-paitamham divyam devairapi durasadam. V. 62. 31; also 63. 5.
⁵⁰sape mula-phalena te. *ib.*, 36. 38.
⁵¹akale capi mukhyani mulani ca phalani ca.
 nadyasca vimalas tatra tistheyur yatra vanarah. VI. 120. 10.
⁵²mriganam mahisanam ca varahanam ca bhagasah.
 tatra nyastani mamsani pana-bhumau dadarsa sah.
 raukmesu ca visalesu bhajanesu ardha-bhaksitan.
 dadarsa kapi-sardulo mayuran ardha-bhaksitan.
 varaha-vardhranasakan dadhi-sauvarcalayutan.
 krakaran vividhan siddhan cakoranardha-bhaksitan.
 mahisan eka-salyan ca chagan ca krita-nisthitam. V. 11. 14-17.

- ⁵³VI, 60, 32-4; 62, 3.
⁵⁴rasim annasya ca adbhutam, *ib.*, 60, 32.
⁵⁵laja-gandhoda-varsaistu sicya-manah sanaih sanaih, *ib.*, 67, 82.
⁵⁶VI, 111, 119.
⁵⁷tilan darbha-vimisritan, *ib.*, 120.
⁵⁸sa havir-laja-satkaraih malya-gandha-puraskraitih.
 juhuve pavakam tatra raksasendrah pratapa-van, VI, 73, 19.
⁵⁹saksatan modakan lajan, VI, 112, 19.
⁶⁰For example, no similar funeral rites are said to have been performed for Khara and others. As there was no domestication of cattle in Lanka ("the milk of cows dried up", *ib.*, 10, 17, is one of the rarest references to a cow in Lanka), the availability of milk and its products remains a moot point. We may also note that no cows are mentioned, though Lanka is described as having cow-pens (gosthagaravatamsikam, V, 3, 18), and also as having many horses and elephants (VI, 9, 17; horses are also mentioned in VI, 69, 29; 89, 39; III, 22, 22; 25, 23. These are the *only* references to horses and elephants in Lanka). This rarity of references to animals so very important in a "king's" town of later days tends to show that all of them may be latter inter-polations.
⁶¹tau tatra hatva caturo maha-mrigan, II, 52, 102; also bahun medhyan mrigan hatva ceratur yamuna-vane, *ib.*, 55, 32.
⁶²madhu-mula-phalopetam citrakutam vrajeti ha, II, 54, 38.
⁶³agamisyati me bharata vanyamadaya puskalam.
 rurun godhan varahan ca hatvadayamisan bahun, III, 47, 25.
⁶⁴na mamsam raghavo bhuntee na capi madhu sevate, V, 36, 41.
⁶⁵IV, 33, 31ff.
⁶⁶V, 35, 81.
⁶⁷IV, 31, 35.
⁶⁸Jataka, II, 5; III, 456. It may be added that in Kumaon, at present the word, "jitha bau joo", elder father, is used for the elder brother of one's father.
⁶⁹V, 17.
⁷⁰I, canto 26.
⁷¹V, 1, 173.
⁷²VI, 33, 1ff.
⁷³V, 3, 21. Apart from the Naga people (cf. Surasa, in V, canto 1), only the Rakshasas have women-fighters.
⁷⁴sva-dharmo raksasam bhiru sarvathaiva na samsayah,
 gamanam va para-strinah haranam sampramathya va, V, 20, 5.
⁷⁵Certain indices, however, point to an earlier state of affairs. We are told that although "generally bipeds, that is, human beings do not follow their father but their mother, Bharata had made this general belief wrong, III, 16, 34. (The use of the word "dvi-pada", biped for human beings is interesting. Elsewhere it is used to denote bipeds in the form of property, such as slaves, see our *Slavery in Ancient India*, New Delhi, 1960, p. 96). But in the Ramayana, this, the more archaic use of the word is met with elsewhere also, e.g. when Lakshmana is called "the best among the bipeds", II, 55, 27 and when Rama is similarly addressed, II, 82, 16.) Similarly the sending of gifts to a maternal uncle, as in the case of Bharata taking them to his or when later Vasistha sends a messenger to fetch Bharata, II, 70, 4, is also to be noted.
⁷⁶IV, 3, 29; V, 63, 1-5.
⁷⁷V, 4, 56; 14, 3; 27, 40; 29, 49; 68, 26, etc.
⁷⁸IV, canto 16; *ib.*, canto 9.
⁷⁹V, 27, 15.
⁸⁰VI, 79, 85.
⁸¹cf. VI, 95, 25-6.
⁸²VII, 62, 2ff.

⁸³As in the case of social customs, it may be observed that despite its superiority in civilisation over its contemporaries, the society of Ayodhya does not have any evolved rules of warfare comparable to those found in the Mahabharata. Apart from the propriety of Rama, fighting Tadaka, a woman, and killing her or that of Lakshmana cutting the nose of Shurpanakha, who was not even armed, it is interesting to note that the rule of one fighting one is not known here. Thus Hanuman helps Lakshmana against Ravana, VI, canto 59, Vibhishana intervenes in the fight between Lakshmana and Meghanada VI, cantos 87-89, and Rama and Lakshmana fight Ravana together, VI, canto 33. In the hundredth canto of the same book, we find Ravana pitted against the two brothers as also against Vibhishana.

The killing of Valin by Rama, without facing him is well-known. In addition may be noted the fact that fighting does not continue even at night, VI, 6, 75. Moreover every participant fights to the best of his capacity and a battle need not end simply on the disappearance of the chiefs, as is so often the case in the Mahabharata (where notable exception is furnished by the Trigarttas, a tribe from the Punjab Hills, who wanted to wreak vengeance on Arjuna.) Examples of such fighting can be had in cantos 43 and 44 of Bk. VI.

⁸⁴I, 25, 25. Here one word about Janasthana, the place in Dandakaranya, where ruled Khara. It seems that it was, at an earlier date, a settlement of the Naras, the cultivators and had been taken over by the Rakshasas.

⁸⁵III, 6, 15-20.

⁸⁶III, 42, 32ff.

⁸⁷VII, 67, 1.

⁸⁸VII, 19, 7. However, unlike the Mahabharata and the Pali texts, the Ramayana gives no indication regarding the method of clearing the forests for cultivation.

ORIGIN AND GROWTH OF THE TEA INDUSTRY IN ASSAM

Sunil K. Sharma

Besides tracing the history of the Assam tea industry, from its first inception, Mr. Sharma presents in this paper the available statistical data regarding output, acreage and export (value). He also analyses the technical and economic factors which affected the development of this industry.

Lord William Bentinck, Governor-General of India, submitted a minute on the 24th January, 1834, to the Council of the East India Company in which he broached the idea of cultivating the tea plant in India. He said that it went without saying that India would derive benefit from the successful introduction of the plant. He proposed that it should be examined whether in all the varieties of soil and climate in India there were not localities which combined the requisite peculiarities congenial to the growth of tea. Lord Bentinck further suggested that possibilities for obtaining from China the best descriptions of the plant and also the knowledge and the skill for the cultivation and manufacture of tea should be explored.

The subject was first urged upon the notice of Lord Bentinck by one Mr. Walker in London. Walker in a proposition to the Directors of the East India Company set out the theme of introducing tea cultivation into the Company's territories as meriting serious consideration. Walker felt that commercial relations with China assumed a character of uncertainty and that the pride and prejudice of the Chinese government introduced an element of indignity in the trade relations of British merchants with China. Tea drinking in the United Kingdom at that time was wide-spread though it was considered a luxury. U. K. at that time, Walker contended, consumed about 25,000,000 lbs. tea per annum. Britain bought from China 28,230,000 lbs. of tea in 1828 for £ 3,286,000 and 27,411,000 lbs. in 1829 for a sum of £ 3,024,000. Therefore, it was necessary to provide some better guarantee to the English man for the continued supply of this article than was at that time furnished by the mere tolerance of the Chinese government. China had a vast internal market for tea and therefore it was feared

that while China could afford to terminate its tea trade if it so desired without substantial damage to itself the consequence of such an action, however, would mean great hardship to the people of Britain. With European skill and capital it was thought that the Chinese monopoly in the production of tea could be destroyed. Mr. Walker was of the view that from the point of view of soil and climate and cheap labour there was no country in the world more admirably suited for the cultivation of tea than India.

But as far back as on 3rd February, 1932, N. Wallich, Superintendent of the Calcutta Botanical Gardens drew up his observations, at the desire of the President of the Board of Control for Indian Affairs, on the cultivation of the tea plant for commercial purposes "in the mountainous parts of Hindostan." Mr. Wallich observed that sanguine hopes might be entertained that under a well-directed management the tea plant might, at no distant date, be made an object of extensive cultivation in the territories of the Company and that it would be no longer necessary to be dependent on the will and caprice of a despotic nation "for the supply of one of the greatest comforts and luxuries of civilized life".

Mr. Wallich said that localities like Kumaon, and Garhwal, corresponded to the seats of tea cultivation in China.

Now, Lord William Bentinck's minute took no notice of the observations of Mr. Wallich nor did anything seem to have been done after these observations were drawn up in 1832. Bentinck recommended very strongly that the attempt should be made to grow tea in India and he proposed that a committee be immediately appointed to formulate a plan for the execution of the project.

It may be that when the East India Company enjoyed a monopoly of the tea trade with China it did not much bother to attempt cultivation in its own territories. But in 1833 the monopoly was abolished and the government began to turn its serious attention to the introduction of the cultivation of tea into India.

In February, 1834, Lord Bentinck appointed a Tea Committee consisting of seven civilians, three Calcutta merchants, two Indian gentlemen and Dr. N. Wallich of the Botanical Gardens, Calcutta. to prosecute enquiries and to promote the cultivation of the plant.

The Committee's secretary, Mr. Gordon, was sent to China to procure plants, seeds and persons skilled in the cultivation and manufacture of tea.

Before they obtained specimens of Chinese soil and effected an analysis of the same the Committee were unable to pronounce finally as to which localities would conduce most to the growth of tea but, tentatively, they formed the opinion that the lower hills and valleys of the Himalayas, the eastern frontier of India, and Nilgiris and other lofty mountains in the southern and central India—the Committee's preference being in that order—would seem to meet the case for experimental cultivation. However, the Tea Committee sent a circular, dated the 3rd March, 1834, to qualified persons and various local government officers who had resided on the hills to obtain informations relative to the soil and climate of the respective regions so as to enable the Committee to form some conclusion as to their relative aptitude in the context of the existing knowledge of Chinese conditions.

The Committee were prejudiced in favour of the hilly areas which by implication suggested that tea would not thrive on the plains, this, however, was to be proved wrong by the subsequent history of the industry. They thought that to produce really good tea a "decided winter of six weeks or two months duration, with frost as well as snow was indispensable."

Meanwhile certain events took place in Assam which heralded the eventual establishment of tea industry in that province.

Lieutenant Andrew Charlton of the Assam Light Infantry at Sadiya, an officer of Capt. Jenkins, Agent to the Governor-General on the North East Frontier, who was interested in the flora of the province, and who, working on his own, had come across the tea plant growing indigenously in certain parts of Assam.

Tea Committee's circular was shown to Charlton by Jenkins and there followed some letters between the two. Charlton wrote to Jenkins on the 17th May, 1834 that he came across the tea plant back in 1831 when he sent a few seedlings to be planted in the Calcutta Botanical Gardens, where they, however, decayed subsequently. Charlton discovered tea growing wild and in

abundance in the vicinity of Beesa near Sadiya, in the north eastern part of the province of Assam, where the local tribes, the Sinphos and the Khampteas, were in the habit of drinking an infusion of the leaves. On a subsequent date, November 8, 1834, Charlton sent specimens of seeds and leaves of the indigenous tea plant to Jenkins and he was sanguine that the indigenous tea was the real tea of commerce. These samples were passed on to the tea Committee towards the end of 1834.

Naturally the Tea Committee were highly satisfied by this discovery of tea growing indigenously within Indian territories. The Committee said that this discovery was by far the most important event that had ever happened on matters connected with the agricultural or commercial resources of the British empire.

The Tea Committee proposed that a deputation of scientific personnel should be forthwith sent to Assam for the purpose of acquiring on the spot information regarding the botanical and geological aspects and such other connected phenomena which as preliminary information were absolutely necessary before ulterior measures might be successfully taken with regard to the cultivation of the tea shrub in that area.

Charlton, however, was not the first person to discover the tea plant in Assam. That honour belongs to another Englishman, Robert Bruce. That Robert Bruce had been for long a resident in Assam is recorded in E. A. Gait's History of Assam. In 1823, R. Bruce went to the Sibsagar district in Assam for purposes of trade. He was reported to be the first British merchant to penetrate so far beyond what was then the limits of the British territory on the North East Frontier. It was here that he first learned of the existence of the wild tea plant from a Singpho tribal chief, Beesagaum by name. It was the outcome of the arrangement that Bruce made then with this chief to produce specimens of this alleged tea that they were shown the following year, 1824, to his brother Charles Alexander Bruce, when the latter was in charge of a division of gunboats at Sadiya. Some of these specimens were sent by C. A. Bruce to David Scott, then the Agent to the Governor-General on the North East Frontier. Later, C. A. Bruce, in a letter to Jenkins mentioned his telling him verbally

about the existence of tea in Assam. This information by C. A. Bruce, however, did not lead to official pursuance of the matter. It is possible that the existence of the tea plant in India did not strike Jenkins as a matter of any great significance when it was reported by C. A. Bruce before the abolition of the Company's tea trade with China. All this—the discoveries by the Bruce brothers and Charlton—took place before the formation of the Tea Committee. After its formation and in the light of the government's eagerness to cultivate tea in India these discoveries assumed great significance. Particularly as regards Assam the fact of knowing that the tea plant was indigenous to the province proved to be a matter of no mean moment. The first task of the Tea Committee, as has been noted earlier, was to discover, within India, localities corresponding closely in point of soil and climate with those of the best tea districts in China. In their quest for such discovery they thought of the hilly terrain of the whole of India and no particular emphasis was placed on Assam. So, the eventual selection of Assam as the main seat of the industry came about as a result of the accidental discovery of the plant growing indigenously in that province and naturally the discovery of the plant in a completely acclimatized state brought the greatest encouragement to the Tea Committee at a time when they were pinning their hopes of success on the discovery of sites where the plant would possibly thrive in order to make the projected venture a commercial viability.

After the discovery of tea in Assam Capt. Jenkins recommended the construction of a road linking Assam with the bordering Chinese district of Yunnan where tea was reported to have been extensively grown in order to obtain easily Chinese cultivators and manufacturers of tea.

The Scientific Deputation formed at the recommendation of the Tea Committee left Calcutta for Assam on the 29th August, 1835. The deputation consisted of Dr. N. Wallich, W. Griffiths, botanists, and J. McClelland, a geologist.

Meanwhile the Tea Committee recalled Mr. Gordon from China who went there to collect Chinese seeds and plants and engage Chinese personnel versed in the cultivation and manufacture of tea, in view of the discovery of the plant in India itself. Gordon,

however, had sent seedlings and seeds from China when he was there on that mission and Mr. C. A. Bruce was appointed by the government to prepare nurseries for the reception of the Chinese plants. It appears from the correspondence of the Tea Committee with the government of India that the Chinese government was extremely jealous of their tea and, therefore, it was with considerable difficulty that Gordon could procure seeds and plants. It seems that Gordon had to carry on his activities in China without the knowledge of the Chinese authorities there. Gordon's assignment was limited to procure a select rather than a body of numerous Chinese cultivators as the government's desire was confined to cultivation only on an experimental scale to start with. All the operations connected with the rearing and processing of tea, from the selection of a proper site for a plantation to the gathering of the leaf, its preparation and packing together with the construction and manufacture of every article required in these various steps were sought to be entrusted to qualified Chinese hands. The Tea Committee thought that for an experimental plantation not more than 50 Chinese need be brought.

Mr. Gordon went back to China again in the middle of 1835 to engage Chinese personnel for tea. On his first visit Gordon was unable to procure the cultivators in China though he entrusted the job to emissaries. Hitherto, as noted earlier, he had sent seeds from China which were distributed to nurseries in different parts of India.

Meanwhile Charlton had twice sent samples of tea made out of the Assam leaf to the Tea Committee. These samples afforded satisfactory evidence that tea scheme would be crowned with success.

The Scientific Deputation headed by Dr. N. Wallich entered Assam on the 10th November, 1835. China seeds that had been received were germinated in the Botanical Garden of Calcutta and the first consignment of 20,000 seedlings in a fleet of boats arrived for the nurseries in Assam towards the end of 1835. Due to the long journey, however, only 8,000 seedlings arrived in good and thriving condition.

Mr. C.A. Bruce, in the meantime, had given up his private business and devoted all his efforts and energies to the care of the

government tea nurseries. He accompanied Wallich's Scientific Deputation in its exploring expeditions through the different parts of Assam to collect botanical and geological information. The Scientific Deputation with the help of Bruce, who had extensive local knowledge, discovered numerous wild tea plants spread over many tracts mostly in the eastern sector of Assam, in the territories of the tribes of the 'Muttocks' and the 'Singphos.'

The important places where tea was found growing naturally were:—

- (1) Koojo;
 - (2) near Niggroo on the banks of Buri Dihing river, in the Singpho country;
 - (3) near Nadoa
 - (4) at Tengrae
 - (5) at the foot of the Naga Hills range and at Gabharoo
- } In the Muttock country;
- which was still under the possession of the Ahom ruler, Purandar Singh.

Dr. Wallich had always emphasized that notwithstanding the fact that tea was found in these parts of Assam, it would have to be cultivated in situations at still higher elevation if the commercial commodity was to be produced.

Now, these "tea forests" as they were called were mostly in territories not under the British rule. The Singphos and the Muttoks were autonomous and some other parts in the Sibsagar district where tea was discovered were under the native ruler. The Singphos and the Muttocks seemed to be very wary of disseminating any information about their tea. They already knew the use of tea and they used to take a certain decoction of the leaf. But they were most certainly unaware of its commercial possibility. It was owing to their unwillingness to show the tea localities that Mr. Bruce's temperament and local knowledge of the country and language and the people came to great help. Now with a present of fire arms or money and now with offers of opium Bruce and the Scientific Deputation were able to cajole them to show numerous tea tracts within the precincts of these autonomous tribal areas.

The Tea Committee or the government for that matter were not only desirous of keeping up nurseries for the development

of the Chinese plant, but they wanted that the indigenous plants should be made into gardens clearing the vegetation that surrounded them bringing thereby the naturally growing plants to shapes and condition of the cultivated Chinese plants. With this object in view the government, in accordance with the recommendations of the Tea Committee suggested the following measures to be adopted by the local administration:—

- (1) To obtain by purchase or otherwise tracts of tea forests in the territories of Singphos, Muttocks and Gabharoo hills;
- (2) to place the tracts under a systematic course of management for establishing tea estates;
- (3) to protect the tracts from encroachment and depredation of man and beast;
- (4) to engage labourers to dig and level the ground and drain lands at places where there was fear of inundation;
- (5) to appoint watchman to guard the tracts to prevent theft of plant and seed.

It is important to note that the government's intention was very limited in purpose, that of proving that tea could be successfully produced in India. In resolution of the government of India dated 11th December, 1837, it was very clearly stated "that the operations undertaken in order to ascertain whether marketable tea can be grown and manufactured in India should be considered strictly experimental, will be carefully borne in mind. Indeed that principle, upon which the first inquiry was commenced, has never from the first been lost sight of." With this end in view the government wanted the Tea Committee to take active measures to bring the experiment to the critical point, of ascertaining whether marketable tea could or could not be produced with the least possible delay. Extensive cultivation was not contemplated by the government. The tea scheme was, therefore, distinctly founded on the principle that the government were eventually to withdraw entirely from all further prosecution of tea plantation and as soon as it might appear to be expedient, to entrust its future success to private enterprise but not earlier. But as yet, however, there had been time enough to place the tea tracts in a proper course of management and to obtain from them

such perfect samples—some samples were made on a few occasions with crude procedures—of their produce as would be unquestionably required before a decisive judgement could be pronounced on the quality of the produce. Because a tentative product would not do as the market had long been used to the Chinese tea cultivated and manufactured systematically over the years. So, Assam tea must, first of all, be accepted in the market before it could hope to be a commercial proposition. Naturally, the government wanted to limit its operation because any large-scale activity was premature while it was at the same time necessary not to spare any efforts to ascertain what quality the Assam tea was capable of producing.

In 1837 several specimens of manufactured tea, not from the cultivated bush but from the wild one, had already been laid before the government which were considered to be very encouraging. But as has been noticed earlier these were manufactured by crude operations and the norms of cultivation and processing were not yet established. None except the Chinese were in the know of these technicalities and, therefore, the government was very anxious to obtain a number of them. In fact a few of them arrived in Assam about 1837 and they were helping Bruce in his experimental operations at Sadiya. At this time Bruce had prepared a large quantity of tea than he had done previously by way of samples, with the help of the Chinese manufacturers and the said tea had been despatched to Calcutta. Bruce gave an interesting description of the manufacturing processes that were adopted to make black tea, which involved all the modern principles of withering, rolling, fermenting and drying but the techniques adopted and the appliances employed were very rudimentary in nature compared to the set-up of machinery in a present day tea factory.

Meanwhile, experimental plantation was started with the indigenous seedlings too and several thousands of them had been planted. They were found to be doing very well.

The first sizable consignment of manufactured Assam tea was received in Calcutta in April, 1838. It comprised twelve boxes of "Paho" and "Souchong" varieties, both the names were given by the Chinese manufacturers in Assam, each containing about 38 lbs. So, in all there were 456 lbs. of tea. The total

quantity sent down from Assam was actually much larger than this but owing to deficiency in packing and the consequent exposure to dampness a good deal of the tea was spoilt in transit. That portion was, therefore, rejected under the direction of the Tea Committee at Calcutta and the remainder that accounted for 456 lbs. as noted, was sent up to London for sale.

The plants from which the leaves were gathered for the making of the above-mentioned black tea were those still in their original wild and uncultivated state. The various processes employed in preparing and packing the tea must obviously have been laboured under the many and serious difficulties and obstacles of a first attempt, but it was hoped that the difficulties would be diminished and progressively overcome as further trials were made.

So the first Assam tea were put to the greatest of all tests that of the London tea dealers. They received a very favourable reception in London, and fetched prices as high as £ 1 per pound. This, however, was due largely to the fact that Assam tea was looked upon with great curiosity owing to its novelty. The first consignment of tea was followed by another consisting of 95 chests and these teas commanded prices between 1s 10½d and 2s a pound.

The first experimental garden with Chinese plants near the confluence of the rivers Koondil and Bramhaputra, Koondilmookh, was opened under the supervision of Bruce. The selection of the site was unwise because it was a sandy path, about a furlong square, covered with a crust of alluvial deposit only a few inches deep. As soon as the plants grew up and the roots got to the sand the plants withered and died and within a short time the Bramhaputra buried the whole garden under it. So the first experimental cultivation was a lamentable failure. The next experimental garden was opened at Jaipur in the Sibsagar district.

In 1840, the government transferred two-thirds of its tea establishments to the "Assam Company" which was formed in England in 1839 to engage in tea cultivation in Assam, with a capital of £ 500,000 in 10,000 shares of £ 50 each, of which 8,000 were to be allotted in Great Britain and 2,000 in India. The Company also obtained permission to settle on other lands. If

government were the pioneers ever to produce tea the Assam Company was the first mercantile concern that took up the commercial production of tea in India.

In its earlier years, due to internal mismanagement the Assam Company was far from prosperous and in 1846-47 its shares were almost unsaleable. But about 1852 its prospects began to improve. In 1840 the Assam Company had 1,356 acres under tea and its outturn for that year was 10,212 lbs. most of which had perhaps been the output of the area planted by the government. The actual area granted to the company for tea purposes, however, was 33,365 acres. In 1845 the Assam Company produced nearly two hundred thousand pounds of tea and had a little under 3,000 acres under tea. Seeds from China were constantly supplied and plantations were made from them but for some time the leaf gathered from the "trees" growing wild in the forests continued to be the chief source of supply.

Until 1850 the Assam Company seems to be the only concern making tea gardens. But thenceforth the undertaking spread in the different districts of Assam. In 1850 one Mr. Colonel Hannay started a garden near Dibrugarh. By 1853, besides the Assam Company's gardens there were nine more private gardens, three in the Sibsagar and six in the Lakhimpur districts. By the end of 1859 the number of gardens increased to fifty-one.

The first gardens opened by the government and the Assam Company during the late thirties and early forties of the 19th century were in the districts of Sibsagar and Lakhimpur. Since then more gardens had been gradually opened in these two districts. All the other principal tea districts of Assam, Darrang, Kamrup, Cachar and Sylhet, had started their tea growing careers between the years 1854 and 1857. The latter half of the fifties and the first half of the sixties of the 19th century saw remarkable expansion of tea plantation. It was no doubt the success and high dividends paid by tea concerns such as the Assam Company and the Jorehaut Tea Company that provided the incentive for speculators to enter the field. Private capital began to flow in and tea was considered a gold mine by the London investors. The result was that land was recklessly

taken up, to be sold to speculators in England for fabulous sums and tea growing for a time fell into the hands of stock-brokers and bubble-companies. A serious crisis ensued. Gardens which were hurriedly planted with a few plants were sold as flourishing tea estates to the credulous and enthusiastic investors in England. Great optimism prevailed about the future profits of tea and this situation was exploited by unscrupulous speculators. They took advantage of the ignorance and credulity of the bulk of would-be investors by selling to them gardens made in a hurry and in some instances gardens that had no existence at the time of sale were sold for immense sums to companies formed for the purpose of purchasing tea property. A part of the sale proceeds was utilized in improvising a garden, that had already been bought under the impression that it was in a flourishing and profit-yielding state.

Mr. E. Money in an essay on tea that received the Grant gold medal of the Agricultural and Horticultural Society of India in 1872, wrote:

"Often in those days a small garden made of 30 or 40 acres and sold to a company as 150 or 200 acres. I am not joking. It was done over and over again. The price paid moreover was quite out of proportion to even the supposed area. Two or three lakhs of rupees have often been paid for such gardens when not more than two years old, and forty per cent of the existing areas vacancies. The original cultivators "retired" and the company carried on."

The crisis referred to lasted during 1866, 1867 and 1868; it all but proved the ruin of this infant industry. So serious was the crisis that the government considered itself called upon to interfere and early in 1868 a Commission was appointed to inquire into the state of the industry. Their report confirmed what every well-wisher of tea supposed to be the case that the old, well-managed gardens were found to be generally in a flourishing state where they had not been influenced by stock-jobbing influences, but the Commission pretty strongly intimated that the sooner some of the newly opened gardens were wound up the better it would be for all parties concerned. Many so-called gardens which were opened up in a hurry only for speculation were closed down by

1870. It took some time to re-establish confidence, so heavy was the blow the industry had received. Men with capability and imagination were determined to give the industry another fair trial as a result of which tea planting slowly became a well-founded industry and it was evident after 1870 that there was little possibility of the former mistakes being repeated, tea having settled down into its place as one of the staple products of India.

The Tea Committee was obsessed by certain erroneous conceptions that afterwards proved detrimental to the industry in its early career.

The first mistake was in regard to the selection of sites. China was then the model. So, after the pattern of the Chinese, steep and high hills were commended as the most suitable sites for the cultivation of tea. This involved great labour costs. Later development proved that plains without water stagnation was better suited for tea. Of course, the climate is an important desideratum, but the moist, humid climate of Assam with about 80 to 100 inches rainfall per annum was very congenial for tea culture and under such favourable climatic condition what was needed for tea was an absence of inundation or any water stagnation and drought. If the drainage is good there is no necessity to go to the slopes of the hills in order to ensure effective drainage. Moreover, these slopes were apt to lose the rich top soil during heavy rains and therefore the soil became denuded of its fertility after a time. To replenish this fertility over extended areas is a matter not only of difficulty but of very considerable expense.

Although the indigenous and acclimatized nature of the Assam plant was established beyond doubt yet the cultivated China plant was considered superior to the wild, jungly and uncultivated and therefore degraded nature of the Assam plant. As a result of this belief millions of China plants and seeds were sent to India by Mr. Gordon, the secretary of the Tea Committee, and later on by one Mr. Fortune. The Scientific Deputation to Assam strongly recommended that future planting should be done with the imported Chinese seeds in preference to the indigenous plant. This was unfortunate. Indian planters had been struggling to eradicate the Chinese varieties of the plant from their estates at a considerable expense. But before this the damage was done, because of the

introduction of the inferior China tea many hybrids of different proportions developed and it was difficult to find a garden planted with pure Assam or pure China. The pure indigenous Assam is superior to the China both in outturn and strength but the China is a much harder plant which can withstand adverse climate, drought and inundation, very much better than the Assam. So the planters preferred a hybrid in which the Assam element preponderated.

Since tea came from China the Tea Committee straightaway proceeded to import into Assam all the Chinese that they could press into their service. These so-called 'Chinese gardeners' consisted not infrequently of persons who are carpenters or cobblers and had very little knowledge of tea cultivation. About 1860, however, this class of Chinese experts became extinct in the province of Assam.

It has been noted that the first tea that was produced in Assam was in the year 1838 when something like 456 lbs. were put up at auction in the London market. The commercial production of tea was taken up, however, by the Assam Company from the year 1840. There is reason to believe that this company had been the sole producer until about 1850 after which the plants of the estates opened by individuals or other companies a few years earlier must have come to bearing. The Assam Company's production during the decade was as follows:—

Year	Crop (in lbs.)	Year	Crop (in lbs.)
1840	10,212	1846	136,267
1841	29,267	1847	160,334
1842	31,398	1848	210,655
1843	87,705	1849	214,817
1844	181,614	1850	251,633
1845	194,800		

The pioneer tea company in Assam had a very bad beginning and soon after its formation it found itself in a highly perilous condition, so much so that at one time the Board of Directors of the company considered the desirability of closing down the company altogether. In 1843, the company paid a dividend of 3% to share-holders but this was not paid out of profits but

out of its capital in order to encourage the share-holders to pay up the current and subsequent calls on their shares. Shortage of labour and the very bad quality of tea that was produced were the main reasons contributing to the inauspicious augury of the company. Things began to mend and drastic reorganization in the company's affairs paved the way to prosperity from which it never retracted.

Around 1860 the output of the Assam Company was something like 810,680 lbs. and the production of the entire province in 1860-61 amounted to 1,903,010 lbs. Which showed that in 1860 the output of the former accounted for nearly 45% of the total yield of Assam. Therefore it can be safely inferred that the proportion of the Assam Company's output around 1855 in the total crop of Assam was not less than 75% as most of the gardens other than those of the Assam Company were opened during the late fifties of the century and a tea bush starts yielding a crop only when it is at least three years old. Hence a look at the production trends of the Assam Company during the next decade, 1851-1860, would give a rough idea of the total outturn in Assam during that period. The following table shows the annual out put of the Assam Company during these years:

Year				Crop. (in lbs.)
1851	...	...	...	... 253,354
1852	...	...	...	... 271,427
1853	...	...	...	... 366,687
1854	...	...	...	... 478,258
1855	...	...	...	... 583,094
1856	...	...	...	... 644,199
1857	...	...	...	... 707,132
1858	...	...	...	... 766,998
1860	...	...	...	... 810,680

We have statistics of output for the entire province since 1860-61:

Year	Total production in Assam (lb.)	Average Yield per acre (lb.)
1860-61	1,903,010	
1864	3,221,902	
1865	4,181,623	
1866-67	4,830,231	
1867-68	7,480,952	
1868-69	8,600,532	
1869-70	9,546,365	
1870	9,886,429	
1872-73	11,650,764	
1874	15,106,779	191
1875	18,659,029	195
1876	23,350,071	235
1878	28,509,548	260
1879	31,386,636	282
1880	34,013,583	282
1881	37,988,505	285
1882	45,472,941	290
1883	52,171,207	322
1884	51,126,199	323
1885	53,622,197	335
1886	61,719,678	363
1887	68,451,180	384
1888	72,677,982	386
1889	76,915,828	391
1890	82,119,252	409
1891	90,399,362	434
1892	84,221,133	394
1893	94,219,904	443
1894	94,829,039	353
1895	99,613,054	424

Year	Total production in Assam (lb.)	Average Yield per acre (lb.)
1896	109,927,359	443
1897	107,260,332	468
1898	109,286,995	440
1899	128,371,857	452
1900	141,118,644	468
1901	134,896,317	400 (approximately)
1902	141,105,749	412 "
1903	145,199,101	429 "
1904	152,197,405	450 "
1905	151,904,806	448 "
1906	162,468,034	476 "
1907	164,194,327	484 "
1908	166,456,859	481 "
1909	174,851,202	502 "
1910	175,095,069	500 "
1911	179,053,017	505 "
1912	198,798,283	549 "
1913	199,721,950	543 "
1914	208,552,307	554 "

The average yield per acre is worked out by dividing the aggregate output by the area under 'mature' tea since the contribution of the area under immature plants is nil or negligible. Right from the inception of the industry new areas have been brought under cultivation every year without a pause. So, the new annual addition is an important component in the aggregate area for any particular year. In the earlier statistics it is difficult to ascertain how much of the aggregate area in any particular year was accounted for by the area under immature plants. Consequently it will be misleading to try to find the average yield per acre by dividing the output by the total area under tea, mature as well as immature. Such an attempt has not been made as it would obviously tend to diminish the actual average. The average yield of 40 lbs. for the year 1840 is, however, correct since the output and the area under mature tea are

both known from the Assam Company's statistics. The categories of land under mature and immature tea being distinguishable in the statistics from 1874 onwards, the computation of the average yield per acre has been rendered easy.

Till 1860 Assam remained almost the sole producer of tea in India although tea cultivation had been started, a few years earlier, in Darjeeling, Kangra, and Dehra Dun. The contribution of all these areas in 1862 was only about 118,000 lbs. whereas the production in Assam in that year was nearly two million lbs. But production in Darjeeling developed rapidly and in 1870-71 its production was something like 1,704,136 lbs. which was roughly 10% of the output of Assam. In 1881 the output of the rest of India except Assam constituted more than 20% of the total Indian output.

Bengal developed to be an important tea producing centre when the cultivation spread to the district of Jalpaiguri besides Darjeeling. The production of Southern India had been comparatively small compared to that of the aggregate production for Assam and Bengal. The following table shows the share of Assam in the aggregate production of India :-

Year	Production of Assam. (lbs.)	All-India production (lbs.)	Percentage of Assam's produc- tion in the total output.
1885	53,622,197	71,525,977	75%
1890	82,119,252	112,036,406	73%
1895	99,613,054	143,407,827	70%
1900	141,118,644	197,460,664	71%
1905	151,904,806	221,712,407	70%
1914	208,552,307	313,301,400	66%

The growth of the tea industry in Assam was entirely fostered by the British market. The consumption of tea in India itself when Assam first emerged as a tea producer was practically non-existent. The consumption of tea in India was of the order of only 1½ million lbs. per annum around 1880. Bulk of this quantity was consumed by the British army and the European

population in India. The Indian consumption had been recording a rise but in 1914 it was not more than 10 million lbs. per annum. Assam tea had been gradually replacing China tea in the English market and practically the entire production of Assam was imported by the U.K. until about 1880. Foreign markets for Indian tea outside the U.K. had been developing very slowly and in 1900 shipments of Indian tea to the U.K. accounted for nearly 97% of the total tea exports. At the close of the 19th century Indian and Ceylon tea had virtually pushed Chinese tea into insignificance in the English market. Consequently the pace of further development of the tea industry in Assam or in India for that matter became closely correlated with the pace of expansion of the English market itself for Indian tea. In fact, this phenomenon became apparent from the onset of the eighties of the 19th century when it was clear that the accommodation of more and more Indian tea in the English market was taking place at the expense of continued reduction of prices. The margin within which the cost of production could be cheapened by the application of machinery was limited because the scope of mechanization itself was limited. The way left for reducing costs was to increase the yield per acre but increasing the yield by improved methods of cultivation was also possible over the long period.

Production of tea in India was fast outrunning the demand for it and the resultant falling trend in prices posed so serious a problem that in 1903 the Government of India passed an Act by which a cess of $\frac{1}{4}$ of a pie on every pound of exported Indian tea was levied in order to create a fund to be utilized for exploiting the foreign markets for Indian tea.

In this situation the extent to which tea production developed elsewhere in India determined the limits to the growth of the industry in Assam. But what put a real limitation to uninterrupted growth was the emergence of Ceylon as a major tea producing country of the world. When Assam first launched upon its tea career way back in 1840 the horizon for its future development seemed almost limitless, as it were.

The sudden expansion of tea cultivation around 1856 necessarily threw the management of numerous gardens into the hands of inexperienced persons having little or no knowledge

of agriculture. Each man gained his experience at the expense of repeated failures.

Pressure was put upon the garden managers by the Agents of companies to make up quantity without reference to quality. Much tea which was worth little or nothing went into the market to make it appear that the produce per acre was high, and the gardens flourishing. The quality produced was so low that not only prices fetched were low but some of the staff offered in the market by the Assam Company in its early career had to be withdrawn as it was unsaleable.

The China plant was widely cultivated and this resulted in diminished output. The China plant is inferior to the Assam indigenous not only in strength but also in yield. The Assam indigenous is a prolific leaf bearer. The Assam planters, it may be repeated, were hard put to it to eradicate the inferior China plants from their estates.

Larger returns of leafs are to be had with a given supply of labour by reducing the acreage under cultivation and increasing the proportion of labour on the land under tea than by spreading the same over a larger area. The proportion of labour to area in the early days of tea cultivation was undoubtedly much below the requirement for thorough cultivation. Due to the shortage of labour, many a time all the leaves could not be plucked.

Another reason for the poor quality tea produced in the early days was the deficient packing of tea and the very long time taken in transit between the tea producing areas of Assam and the tea markets in London. Often the packing was so poor that it had to be redone in Calcutta. Poor packing exposed the tea to the influences of the weather and this had a deleterious effect on the quality.

But since about 1870 the experience gained through a process of trial and error lent a beneficial effect to the industry. The total production of tea in Assam has increased at a greater rate than has the acreage because the output per acre has shown a steady increase. This increase in per acre yield was, above anything else, the result of a more rational application of labour. The realization prevailed that instead of useless extension it was far better to resort to a system of high cultivation by employing

more labour to unit area and this naturally led to a salutary effect. Previously, in their eagerness to show large areas under the plant the extension was carried on to a point where it was impossible to maintain the plants at a high-yielding state, given the limited labour supply. Jungle grass grew up round the bushes stunting the growth of the latter and rendering it considerably difficult to approach them during the plucking season. When cultivation was first started the average production per acre was as low as 40 lbs.; since then it gradually increased and in 1900 it was 468 lbs. The average yield in Assam had always been higher than the over-all all-India average.

The reasons for this increase in the per acre yield are:

(i) With the advance of years more tea plants came to maturity. The per acre yield is worked out with reference to the yield of the mature plants alone as the immature plants yield little or nothing.

(ii) Selection of the best quality of plant and seed that result in better yield.

(iii) High cultivation. The whole cultivation system had been undergoing vast improvements right from the planting of the seedling to the methods of plucking. There are now more plants to the acre than previously and the pruning of the bushes is kept at such convenient level that all the leaves could be gathered with facility. In the early days the tea bush was allowed to grow almost into a tree; thus it was very difficult for a plucker to gather the leaves much above his own height. Plucking itself began to be done in a more scientific way. In the past gross hard plucking was the rule which came in the way of the subsequent production of "flushes." With experience it had been realized that the phasing of plucking over the season ensured a larger crop than gross-plucking early in the season resulting in poor production of the leaf by the bushes later in the season.

(iv) During the early days virtually no manure was used in the tea soils. Gradually oil-cakes came to be used as fertilizers. And finally the use of chemical fertilizers had been resorted to and this was an important factor in the increased output.

(v) Increment of the number of plants to the acre. The yield will vary directly with the number of plants in an acre. An acre with plants thinly scattered over the area will necessarily yield much less than an acre with the optimum number of plants in it. To know exactly how closely the plants should be placed or, in other words, to plant the optimum number in a unit area was an experience gained only as the industry matured. During the early period there was a good deal of unnecessary vacancies per acre.

(vi) Sufficient labour application. It has been experienced that something like 1.5 labourers are required to cultivate an acre of tea land. In the early days this ratio never obtained in view of the acute shortage of labour and continued extension of the area. With the restriction of the area under tea and the supply of more and more labour to this comparatively restricted area the application of an adequate and judicious amount of labour per acre had been made possible.

(vii) Introduction of machinery in the processing of tea.

By its very nature the tea industry is not very amenable to the introduction of machinery so far as the field operations are concerned. The preparation of the soil and the pruning and plucking are done by the hand. In plucking particularly hand operation is preferred because more discretion can be applied according as the situation demands coarse-plucking or fine-plucking. When the bushes are planted close to each other, as they actually are in a tea garden, application of machinery or operations like weeding, hoeing and earthing-up is seriously limited.

But there is great scope of mechanization in the processing of the leaf in the factory. In the early days very simple appliances were used for tea manufacture and a large number of hands were necessary to process the green tea leaf. This was a serious draw-back because the process of manufacture was very slow and ununiform. During the season when the leaf is produced in large quantities the factories had to work round the clock so as to prevent the leaves already gathered from deterioration.

There are four distinct operations to which the green leaf after being plucked is subjected in order to make black tea, the marketable commodity. These are withering, rolling, fermenting and firing or drying.

As regards withering of tea no machinery has yet been applied and the improvements brought about in this process has been in the shape of very much improved "leaf-houses" where the green leaves can be commodiously spread and which admits of more pliability.

The rolling machines are perhaps the first introduced in the development of mechanization in tea manufacture. These machines began to appear around 1868 and they were power-driven. They vastly economise labour and help in turning out an uniform product. The earlier rolling machines were rudimentary compared to the more sophisticated modern ones but a rolling-machine, even of the old type according to the experience of the Assam Company could do the work of nearly 44 men.

Drying machines were introduced about 1875. Tea drying over charcoal-'Chulas' or ovens for prolonged period before the advent of drying machines was a very arduous affair. With the advent of drying machines tea shifting machines which sort out the finished product into different grades also began to appear.

The production of tea in Assam has shown a steady and uninterrupted increase over the years. The minor fluctuations are mainly due to failure of the weather and to attacks of blight and pests to which tea is vulnerable and which involve tea in considerable loss when such attacks take place.

All these machines had to be operated by unit power generators. The installation of one prime-mover to set in motion the entire assemblage of machines came about in the period 1875-1880. So, the whole manufacturing operation became an automatic mechanized process, from about 1875. The different processing operations are carried out under one roof. The machinery used in the production of tea came as a great boon. Due to want of sufficient hands,—a chronic feature—the total quantity of leaves gathered frequently could not be processed. This happened over and over again. With the equipping of the factory with machinery that anxiety of the planters was over.

Tea is beyond all comparison the most important commercial staple of export from the province of Assam. Besides tea Assam exported rice, mustard, oranges, potatoes, lime, timber, raw jute, raw cotton, and coal. The value of each item of export

taken separately pales into insignificance when compared with that of tea. Tea from Assam was carried by boats to the ports of Calcutta and Chittagong from where they were shipped mainly to Britain and to other parts of the world. With the completion of the Assam Bengal railway in 1896-97, bulk of the tea began to be transmitted rail-borne. In 1890, tea formed 68% of the total value of Assam's exports. With the linking of the province with Bengal by vastly improved means of communication the total exports of Assam has been recording a steady improvement. But, so far as individual items were concerned tea remained at 1913-14 by far the most important of the exported goods. Between 1911 and 1914 tea alone constituted nearly 50 per cent of the value of total exports.

BIBLIOGRAPHY

- (1) *Parliamentary Papers on the introduction of Tea Cultivation into India, 1840.*
- (2) *Government of Bengal Paper XXXVI relating to Tea Cultivation in Assam, 1859.*
- (3) *Papers regarding the Tea Industry in Bengal, 1873.*
- (4) *Prize essay on the Cultivation and Manufacture of Tea in India, by Lt.-Col. Edward Money, 1874.*
- (5) *A History of the Assam Company, 1839-1853 by H. A. Antrobus.*
- (6) *History of Assam, by E. A. Gait, 1906.*
- (7) *Annual Reports of the Administration of Bengal, 1860-61—1873-74.*
- (8) *Annual Reports of the Administration of Assam, 1874-75—1879-80.*
- (9) *Annals of Indian Administration. 1860-61—1880-81.*
- (10) *Statistics of Tea Cultivation in India, in the Records of the Department of Revenue and Agriculture, Government of India, for the years 1883—1906.*
- (11) *Annual Report on the position of Tea Cultivation in Assam, 1879—1900 in the Records of the Revenue and Agriculture Department, Government of India.*
- (12) *District Gazetteers of Assam, B. C. Allen, 1905,*
- (13) *Agricultural Statistics of India.*
- (14) *Reports of the River and Rail-borne Trade of Assam, 1890-91---1913-14.*
- (15) *History and Results of the Tea Cess, Records of the Department of Commerce & Industry, May, 1910.*
- (16) *Gow, Wilson and Stanton's (tea brokers of London) Circular on the Production and Consumption of Indian and Ceylon Tea, Records of the Revenue and Agriculture Department, 1900.*

Contributors to this number

G. R. G. Hambly, M.A. Ph.D. (Cambridge), now with the British Council at Teheran, has worked on the history of the Indian Income Tax.

J. R. McLane, M.A., Ph.D. (London), Assistant Professor, North-Western University, U.S.A. has worked on and published a number of papers on the history of Indian Nationalism.

M. J. T. Thavaraj, M.A., Ph.D. (Delhi), now with the Institute of Public Administration, New Delhi has worked on the history of the public investment in India.

Dharma Kumar, M.A. Ph.D. (Cambridge) of the Indian Council of World Affairs. Her monograph on agricultural labour in S. India in the 19th century is now in press.

D. R. Chanana, M.A. (Punjab), D. és. Lett. (Sorbonne), Reader in Sanskrit, Post-Graduate Evening Institute, Delhi, is the author of a standard monograph on slavery in ancient India.

Sunil Sharma, M.A. (Delhi), Research Scholar, Delhi School of Economics, is now working on the history of the tea industry in Assam.

A. M. Shah, Lecturer in Sociology, Delhi School of Economics.

R. G. Shroff, Lecturer, Tribal Research and Training Institute, Gujarat Vidyapith, Ahmedabad.

A. R. Shah, Lecturer, Siddhpur College, Gujrat.

Published by Firma K. L. Mukhopadhyay