

Occasional Paper No. 70

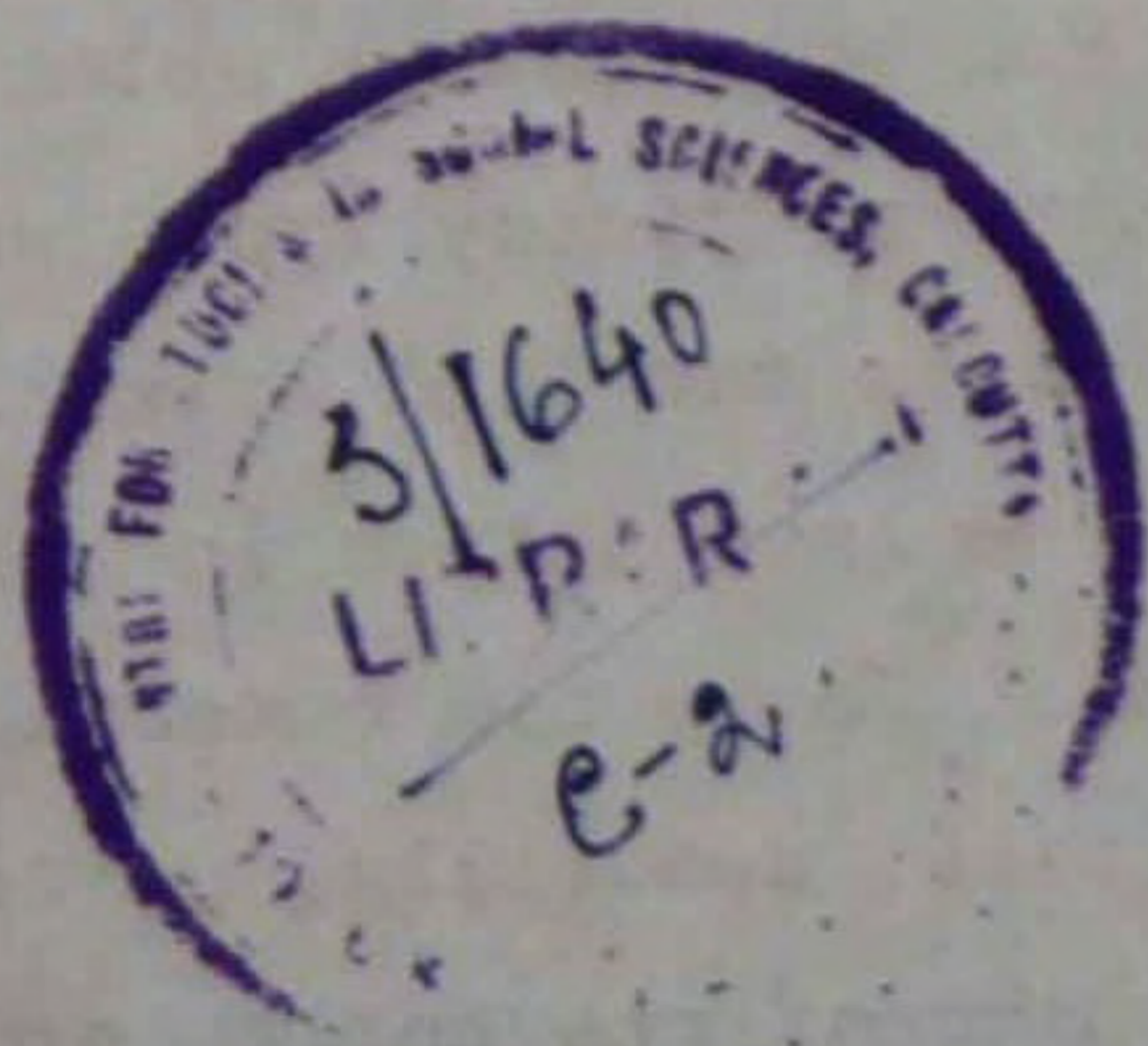
PRICE OF RICE AND LAND TRANSFER  
IN THE WEST BENGAL DISTRICTS  
( 1905-6-1941-42 )

MANOJ KUMAR SANYAL

S/1640  
e-3.



CENTRE FOR STUDIES IN SOCIAL SCIENCES, CALCUTTA



Price of Rice and Land Transfer in the West Bengal Districts  
(1905-6 — 1941-42)\*

---

Manoj Kumar Sanyal

I

This paper is an attempt to show how the process of land transfer was related to the movements of the price of rice in the West Bengal Districts during the period, 1905-6 — 1941-42. A similar attempt was made by K. Mukherjee (1957)<sup>1</sup>. He studied the correlation between land transfer (sale, lease and mortgage) and prices (wholesale) of agricultural and non-agricultural commodities in Bengal for the period, 1926-43. N.R. Dasgupta (1946)<sup>2</sup> published a brief note on the subject pointing out the importance of correlating the December prices of rice to the number of land registrations of the next year. It was, however, left at the level of suggestion at that time.

II

The present investigation begins from an agrarian situation under which zamindars, tenure-holders, sub-tenants, occupancy ryots with varied economic status were the principal operators in the land market.<sup>3</sup> Except for the depression years, the land market remained active in all the regions under study for the entire reference period. There had been changes in the social and economic character of the operators, specially, on the buyers' side in the land market, but the major victims of the entire process had been the small peasantry who had been losing land to the powerful pressure-groups of the agrarian society and ultimately swelling the ranks of share-croppers and landless labourers. Indebtedness was the principal mechanism through which transfers of land took place, and it should be remembered that

---

\* An earlier version of this paper was presented at the Research Seminar Programme of the C.S.S.S.C. in January, 1984. I would like to acknowledge the help and guidance that I received from Dr. Saugata Mukherjee.

agricultural debts in Bengal were almost entirely for purposes of maintaining a minimum level of subsistence. When one remembers that towards the end of 30s the percentage of land cultivated by family labour with land tilled by sharecroppers together made up from over 80 per cent to nearly cent per cent in a majority of districts, and that the holding size of the greater majority of tenant cultivators was somewhere around 2 acres, the gap between their annual foodgrain output and their own minimum consumption requirements is not hard to guess. It was in this situation that consumption loans accumulated and compounded over time and led in the first place to a hypothecation of the crop, and then ultimately of the peasant's land holding itself. In the post-Depression years specially the differentiation among the peasantry took the form of out-right sale of lands of the small cultivators and the grabbing of the same lands by the prosperous ones where those dispossessed were resettled with very little or absolutely no legal entitlements. Legal enactments for tenancy reforms, whatever might be their objectives, merely hastened the process. The cleavage between landownership and cultivation tended to widen with a rise in the transfer of occupancy holdings. Certain fragmentary historical evidence apart, the exact class identities of the buyers and sellers of occupancy holdings have not been documented in the contemporary literature on the subject. It will be a step forward to a research for an identity of the traffickers in the land market if the nature of relationship between the transfer of peasant holdings and the price behaviour of a basic subsistence crop, viz., rice, is examined. The bulk of the peasantry had been engaged in subsistence farming and their asset position is supposed to have been adversely affected if the price of rice went up. In a reverse price situation the peasantry should have experienced less erosion of their assets. Moneylenders (who were also buyers of land) were quite reluctant to accept movable properties as collateral securities and the peasant's credit-worthiness was determined mostly by his ability to hypothecate land. To a small peasant, operating in such a historically given situation, sale or mortgage of land was, therefore, imperative.

This observation is more or less in congruity with what has been quantitatively worked out in section III of this paper. A major part of it also finds nearly perfect corroboration in the impressionistic views of the Registration Department having some first-hand knowledge of the situation prevailing in the locations of transfer of peasant holdings. The primary reporting agencies of the department were the District and Sub-Registry Offices that were situated closely to the said locations. Increases in registrations of peasant property were usually ascribed to high prices of foodgrains by the Registration Department.<sup>4</sup> The Department, for example, considered "the stress of high price of rice which prevailed in the district" as the cause of rise in registrations in Midnapore in 1903. While reporting a sharp rise in registrations (21.2%) in the same district in 1908 the Inspector-General of Registrations in Bengal stated, "the increases are mainly ascribed to the failure of crops in 1908, and consequent high prices of foodgrains. In Midnapore, mortgages and bonds increased by 55.2% per cent and 42.2% per cent, respectively, in 1908; moneylenders are reported to have been unwilling to advance money except on the security of land". The same report stated, "the increase in the 24-Parganas (14.5%) the bulk of which was contributed by a sharp rise in mortgages and bonds, is attributed to the high prices of foodgrains and the impoverished condition of the poorer classes". In its Statistical Returns for 1911 the Department noted, "in the district of 24-Parganas both registrations and receipts in the year under report were the highest on record. The increase in the total number of registrations (52.2%) in this district is attributed to the popularity of the development, the highest prices of foodgrains and a growing spirit of speculation in land". The same Department's report for 1912 reinforces our belief that the process of land transfer in any district was more or less an outcome of the upward movement of the price of the dominant crop of the area as well as indebtedness of the peasantry. The report stated, "mortgages increased in Midnapore by 16.1 per cent in 1912 as compared with 1911, owing, as the Registrar reports, to high prices of foodgrains and the prevailing unwillingness on the part of the moneytenders to advance loans except on

the hypothecation of immovable property". In many other subsequent reports of the Registration Department an upward movement of foodgrains price was stated to be the reason for increases in registrations of peasant property.

### III

The small peasants' involvement in the market for agricultural produce was dictated by their debt obligations. The price they could realise for their immediate post-harvest sale was much less than the ruling price in the market. Cash earnings, in consequence, usually fell short of their liquidity needs. Moreover, they were left with little or no rice balance to subsist between harvests. They were, therefore, forced either to enter into fresh loan contracts or to dispose of assets. Debt obligations not only constrained a peasant's ability to hold on stocks for a better market, it very often forced him to part with his produce at a pre-determined price dictated by the creditor. Dadan advances and paddy loans are the two most revealing examples of such types of credit. The entire process kept him in a state of perpetual indebtedness the extent of which can be guessed from the fact that land was being sold at falling prices during the late 'thirties. The peasants' involvement in the land market was, therefore, involuntary. His involvement in the output market inevitably linked him with the land market. That the peasants' participation in both the markets was more or less a forced activity is indicated by the fact that sale and mortgage of land - the two major forms of land transfer - had a high positive association with the price of the most dominant crop, viz, rice, in all the West Bengal districts as well as in Bengal.

The results of the study of correlation between the price (harvest) of rice (winter) and land transfer, as indicated by sale (no. of deeds) and mortgage (no. of deeds) in the districts are summarised in table 1. During the period I (1905-1929) the co-efficients of correlation ( $R_1$ ) between sale of land ( $X_1$ ) and harvest price of winter rice ( $H_p$ ) appear to be significantly positive in all the districts. The correlation ( $R_2$ ) between land

mortgage ( $X_2$ ) and the harvest price ( $H_p$ ) was also quite direct in the districts, although it was not very significant for the districts of Burdwan and Midnapore. Comparison between  $R_1$  and  $R_2$  for the period I suggests that the relationship between  $X_1$  and  $H_p$  was more direct than the relationship between  $X_2$  and  $H_p$ . The results of our study for the period II (1930-41) indicate a still more direct relationship between the sale and the price variable. The relevant correlation co-efficients are highly positive and significant for all the districts. Indeed in some cases they were so high that they pushed up the relevant values for the entire period under the investigation.

During the first sub-period, as we have already seen, there was some positive association between  $X_2$  and  $H_p$ . But this trend appears to have been reversed for the period II when we notice several instances of fairly high negative association between  $X_2$  and  $H_p$  in all the districts excepting Dinajpur where  $R_2$  for the relevant period is insignificant.  $R_1$  and  $R_2$ , for the period II, taken together, lend strength to our assumption (elaborated in section IV) that the traditional system of credit was replaced by advances (kind and cash in which kind loan was increasingly becoming prevalent) made by the substantial peasantry with the ultimate objective of compounding debts and seizure of land belonging to the debtor. The flow of cash credit was nearly clogged and the process of land transfer, which continued unabated, took the form of sale.

From the point of view of the relationship between land transfer and price of rice, it can, however, be argued that sale dominated over mortgage for the entire reference period and the sub-periods as well. High negative values for  $R_2$  simultaneous to highly positive  $R_1$  values (both for the period II) do in no way indicate that the play of the price of winter rice in the overall process of land transfer became insignificant. The depression and certain legal enactments pertaining to sale and mortgage of land in the 'thirties might have acted as factors distorting the relationship between land transfer and the price movements to some extent,

but  $R_1$ 's response to Hp was least affected. Credit constraints undoubtedly acted upon the relationship between the mortgage and the price variables, but there was no such extraneous factor which could affect  $R_1$  for the period - II. The correlation study is, of course, too simple to indicate the exact nature of relationship between the price variable and land transfer.

The results of the study provoke an enquiry into the relevant situation in Bengal. Winter rice, the price of which has been found to be significantly correlated to land transfer, had been the dominant crop of the districts under our investigation. Its all-Bengal significance as a cash crop was much less than that of jute grown primarily in eastern Bengal. In spite of the same, very high positive correlations between land transfer (both sale and mortgage) and prices (retail and harvest) of rice have been found in Bengal during the period 1911/12-1941-42 (see Table 2).

The significant correlation between price of rice and land transfer is an admissible evidence of the predominance of rice over any other crop in the peasant economy of Bengal. The overall importance of rice in the agrarian economic life of West Bengal as distinct from east Bengal makes the price movements of rice a crucial variable in understanding both the debt mechanism and the behaviour of the land market. In the jute-growing districts of Bengal the jute-rice price ratio is, however, more significant than the price of rice alone. A high ratio of jute-rice price would enable the jute growers to match their cash earnings with their basic consumption needs with ease. A jute grower facing a depressed market for raw jute could hardly avoid selling his assets when the price of rice went up. The jute traders started advancing paddy loans the terms of which required the jute growers to part with their produce immediately after the harvest. The process might have postponed the growers' distress sale of assets temporarily but it ultimately led to a bigger loss of his assets. No statistical analysis of the relationship between land transfer and jute-rice price ratio has, however, been made.



Our investigation at the district level shows exclusively how land transfer was related to the movements of the harvest prices of rice. The rationale for choosing the harvest prices lies in the fact that a major part of the rice output had been bought and sold at these prices. If we suggest that these prices were received by the small farmers and their income expectations depended upon the movements of harvest price one can argue that land transfer should be negatively correlated to harvest price provided the small producers are identified as the sellers of land. The peasant should not sell or mortgage his land in times of upward price movements for his product because such movements would induce him to expect higher returns from cultivation. His ability to hold land should also increase as a result of such price movements. The situation may defy a simple explanation. The prices that seem most relevant for explaining the phenomenon of land transfer from its supply side are prices actually received by the farmers. But the harvest prices published in the Provincial Season and Crop Report and reproduced in the Agricultural Statistics of India, as Dharm Narain observes, are not actually the prices realized by the farmers.<sup>5</sup> The prices ruling at the time of harvest are shown as harvest prices in the official reports. The wholesale prices were passed for harvest prices for some provinces and for others retail prices appeared as harvest prices in the reports.<sup>6</sup> Obviously, from the point of view of the peasantry selling or mortgaging land the prices in question do not indicate their returns from cultivation. For the smaller peasantry the volume of saleable surplus was either nil or even negative. They were dragged into commerce with terms dictated by the agriculturist - creditors and traders. The farmers had to dispose of their produce immediately after the harvest at prices that were substantially lower than the ruling prices in the market or the so-called harvest prices and their subsistence need forced them to buy back the same in the off-season at a comparatively high price. They used to borrow money or paddy to meet their consumption needs. This is clearly indicated by high correlation co-efficient for land transfer and retail price of rice in Bengal (Table 2). The entire process implies

their inadequate access to the product market and their lack of command over the price movements and the situation leading to the outright sale of land was more or less thrust upon them by a class of cultivator-creditors who could control the commodity market as well as the factor market. There can be hardly any other explanation for high positive correlation between land transfer and harvest price from the point of view of the supply of land.

In explaining the process of land transfer from the buyer's point of view the question that has to be dealt with is : Should we consider harvest price as a determinant of demand for land ? The big cultivators whom we identify as the buyers of land had always greater retention power and they could sell a considerable portion of their produce at a price which was more than the harvest price. Expectations of future prices determine to a great extent the current production decisions. This is true particularly for a large-scale producer whose production-decisions are always expected to be market-oriented. His decision to buy inputs should, therefore, depend upon the expected 'Normal' price (of the product) in the Nerlovian sense. Price expectations are supposed to be governed by a multitude of influences and, according to Nerlove, "A convenient way to summarize the effects of these many and diverse influences" is to assume "a representation of expected price as a function of past prices."<sup>7</sup>

Since land is the major input in a technologically backward agriculture, and the big farmers' non-land inputs demand could be easily adjusted with current prices, the 'expected normal price' of the product or any price which approximates to the same may be taken as a determinant of the demand for land in view of the inter-linkage between input and output prices. Given the nearly non-competing nature of winter rice and its predominance over any other single crop the expected price of the said crop is expected to influence the demand for land. "The harvest prices would be a better approximation of the expected price", primarily because "the larger part of the produce during the year is marketed during and immediately after the crops are harvested".<sup>8</sup>

The harvest price movements would, therefore, set a basis for price expectations that largely governed the production decisions including the decision to buy the inputs required for producing the relevant output. This contention holds good for an ambitious peasant of the 'thirties who had already learnt to employ land for productive purpose of a kind rather than pure speculation.

The commercial aspect of rice cultivation should also be considered in understanding the process of land transfer. "Share-cropping and cultivation by hired labour at the expense of self-cultivation could not, however, have developed only as a result of impoverishment of the peasantry. There were brought about also by the commercialization of crops which transformed the relationship within the agrarian economy".<sup>9</sup> During the first two and half decades of this century rice had been quite prominent as a commercial crop of the province. The western and south-central regions of the province were the chief rice-growing areas with an exportable surplus. The beginning of the period witnessed some net exports of rice from the province. There had been a steady decline in the exports of rice from Calcutta from 1912-13 onwards. During the year 1914-15 - 1916-17 imports of rice into Bengal had been persistently higher than has rice exports. Exports of fine rice from 1912-13 onwards were at all possible because of huge imports of Burma rice of inferior varieties that there sent into the interior parts of Bengal. Mukherjee<sup>10</sup> observed "a fairly high degree of positive association between the imports of rice into Calcutta from Burma and the total exports of rice from Calcutta". With the decline in rice output in greater Bengal area in the following decades the exportable surplus was no longer there. From the late 'twenties to the late' thirties there was a prolonged depression in the price of rice owing to sharp fall in exports as also accumulated stocks because of dumping of Burma rice. Overseas exports of rice started falling from 1925-26 and this tendency continued well beyond mid-thirties.<sup>11</sup> This was mainly the period when cash exchange in rice market declined, the incidence of grain loans became very high and this, as we shall see, had an important bearing on the process of land transfer. The proportionate

share of the monetized output of rice in its total output had been declining during the 'thirties, but a sudden rise in the local non-monetized transactions in rice specially in the forms of paddy loans and repayments, kept up the importance of rice cultivation in the face of its declining commercial significance. The commercial importance of the crop, however, rose remarkably towards the end of the period under review. According to the 'Report on the marketing of Rice in India and Burma' (Delhi, 1941), 46% of the total rice output in Bengal was marketable, the estimate of which was based on the average production of 1934-35/1936-37.<sup>12</sup> With the out-break of the world war II the situation vis-a-vis stagnation in rice exports was completely reversed and owing to war-time procurement policies the volume of marketed exports of rice shot up. And this time of high commercial significance of the crop coincided with an unprecedented rise in the sale of land. This was not at all a casual phenomenon.

The explanation partly lies in our study of correlation between price movements and sale of land. The high  $R_1$  values for the entire reference period reinforce one of our basic arguments (stated in the beginning of the section) that the peasant in question was trapped in forced commerce.<sup>13</sup> The monetization of output could not arrest the process of progressive pauperization of the small indebted peasant. Since his cash obligations were mounting up, he could not avoid selling his produce at the cost of his consumable rice balance. He was, therefore, forced to borrow either in cash or in kind to subsist between harvests. Shortfall in cash earnings could not be made good by borrowings, particularly, during the depression years when the traditional sources of credit dried up and the peasantry's liquidity needs accumulated over years found vigorous expression in the outright sale of land with the revival of an active land market in the late 'thirties. The peasantry's liquidity need was enormous and desperate.

For a deeper understanding of the process of impoverishment of this section of the peasantry the trends of land transfer (sale and mortgage) along with certain relevant legal enactments should be referred to.

Structural changes in the credit market during the 'thirties had some important bearings on the land market and they also deserve a mention in our study. These aspects of the investigation, dealt with in section IV, provide a broader perspective for understanding how the process of land transfer was related to the movements of the price of rice.

#### IV

A complete reversal of trend so far as mortgage was concerned and the increasing significance of sale of land during the 'thirties are indicated by the results of our trend-estimates of land transfer (sale and mortgage) for the periods (I) 1905-1929 and (II) 1930-1941 shown in table 3. The high volume of land sale (estimated in terms of the number of deeds) during the last four years of the period II raised the relevant trend values for the entire period, 1930-41 (see table 3). The combined impacts of a number of Government legislative actions, viz. the Bengal Tenancy (Amendment) Act of 1928, the Bengal Tenancy (Amendment) Act of 1937 and the Bengal Agricultural Debtors Act of 1935, deserve special mention in analysing the process of acceleration of sale and retardation of mortgage during the period 1930-41. The response to the Bengal Tenancy (Amendment) Act of 1937, which removed almost all the obstacles to the sale of land, was quite immediate in the entire region under review. Sale shot up to a record high in 1941 in all the district under review excepting the district of Howrah where it reached the peak in 1940. The Bengal Agricultural Debtors Act of 1935 had been quite successful in scaring the agriculturist moneylenders. The Bengal Landholders' Association in its replies to the questionnaire circulated by the land Revenue Commission (1940) observed, "as a result of the Act, money-lenders are not granting loans to agriculturists and when, therefore, the tenant needs money he had to sell outright at least portions of his holding. He generally becomes in such cases the bargadar under the purchaser"<sup>14</sup>. This is quite understandable from the fact that towards the end of our period mortgages (both in terms of the number of deeds and the aggregate value)

declined to almost complete insignificance in all the districts indicating the extreme atrophy of cash credit. The small peasants were the worst victims of the entire process. Their desperate hunt for cash ultimately led them to part with land against whatever price it could fetch. On the other hand, there had been an orgy of buying land amongst the propertied peasantry.

Legal action alone did not lead to the trend-breaks referred to above. The overall situation prevailing during the depression was responsible for the retardation of mortgage and the failure of the traditional credit system. The depression years saw a steep fall in paddy prices that continued to remain depressed even when the prices of other crops picked up to some extent. This trend was accompanied by temporary demonetization of the rice market - mainly owing to the export situation and also large stocks built up by imports from Burma. As we have noted in the foregoing section, there was a fairly high non-monetized demand for paddy leading to greater volume of exchange in kind. The Bengal Paddy and Rice Enquiry Committee observed in this connection "Paddy loans rather than cash purchases are the method by which they adjust the gap between their actual consumption and their consumable surplus. Except in a few jute-growing areas ..... this was now the common practice in the country side".<sup>15</sup>

This kind of transaction flourished quite perceptibly in some predominantly paddy-growing districts even before the onset of the Great Depression. During the first decade of the century grain debts in certain paddy-growing regions were found to be responsible for land alienations. It follows from McAlpin's special enquiry made in 1909 that the Santhals in Bankura and other districts became the worst victims of this kind of usury. The depression, which meant a fall in agricultural prices and income, created an atmosphere quite congenial to the growth of the kind of usury McAlpin referred to. The Bengal Board of Economic Enquiry (1933-34) found that most of the expenditure of the agricultural families in the district of Bankura had actually been incurred in kind. The Board observed "the difficulties of

the cultivator are not as great as they appear on paper, but it is a fact of great importance that the moneylender who used to serve as a shock absorber in times of economic crisis is no longer in a position to function in this capacity because he has no ready money to lend".<sup>17</sup>

The evidence from the Sadar Circle, Midnapore, before the Bengal Provincial Banking Enquiry Committee (BPBEC), 1929-30, indicated the dearth of credit capital and the corresponding rise of paddy-lending in the region.<sup>18</sup> The Circle Officer, Jaladhar Ghosh, observed, "moneylending business is declining and there has been a tendency of corresponding rise in paddy-lending. There are very few Mahajans having capital of Rs.5,000/- each. The number in all, in the 3 thanas of Keshpur, Midnapur, and Salbani". The evidence shows further, "according to a rough estimate, the number of paddy-lending mahajans would be about 10 in each 100 square miles with a capital of 1,000 to 5,000 maunds of paddy; as such paddy-lending business is predominating in this district". The dearth of liquidity and the preponderance of kind loan was also indicated by the evidence of the S.D.O., Jhargram (Midnapore) before the BPBEC ; "agriculturists borrow generally paddy from the paddy-lending mahajans in their villages or neighbouring villages, as the wages are generally paid for agricultural labour in paddy and not in cash in this sub-division. The bigger agriculturists borrow either cash or cash and paddy both. But cash borrowing represents less than 10 per cent of the total debts incurred for purely agricultural operations".<sup>19</sup> The sudden fall in the volume and value of mortgages in 1928, as shown by the Statistical Returns of the Registration Department for the relevant year, also suggests the declining significance of cash credit and lends strength to the assumptions referred to above. The rest of the reference period witnessed a continuous fall in mortgages and acute shortage of agricultural credit. Midnapore Zamindari Company in its oral evidence before the Land Revenue Commission (1940)<sup>20</sup> stated, "even though transfer might lead to a decrease in the value of land still transfer may be under present conditions unavoidable because agricultural credit has largely disappeared." The dearth of liquidity and the distress sale of land towards the end of our reference period find corroboration in a few more qualitative evidence left out of the

scope of the study.<sup>21</sup>

The depressed agricultural prices and income and the growing importance of exchange in kind acted in combination to arrest the rapidity of land transfer during the depression years and ultimately, to hasten the process of disintegration of the traditional Creditor-Cultivator symbiosis.

It is interesting to note in this connection that land price as indicated roughly by the average value per document of property transferred by sale or exchange (see Table 4) had been declining during the 'thirties and it was quite low in the districts towards the end of the 'thirties. The situation in the districts of Howrah, 24-Parganas and Jalpaiguri was, however, quite different from the rest of the areas. Requirements of land for tea plantations in northern Bengal and urban developments in some parts of the districts of Howrah and the 24-Parganas made the land market in those regions very much speculative. The sale of land remained suspended to a great extent during the depression years because of unfavourable demand situation. The small peasants started selling land when the depression lifted and the richer peasantry resumed their buying operations with renewed vigour. The latter section of the peasantry grabbed the opportunity of buying land cheap to be ranked amongst the landed gentry.

This section of the peasantry wielded the credit mechanism to accumulate wealth. A high incidence of mortgage during the period I. of our study clearly indicates the pace of wealth accumulation by their combined activities of moneylending and cultivation. Thus a mere relation of exchange which existed between the professional moneylenders on the one hand and the peasantry on the other ultimately changed into a new type of relation between an emerging class of landed gentry and a vast mass of dispossessed peasantry consisting primarily of landless labourers and share-croppers during the late 'thirties. Now these two classes of peasantry came face to face with each other through their production relations.



Notes

1. K. Mukherji : The Problems of Land Transfer — A Study of the Problem of Land Alienation in Bengal (Santineketan, 1957), Ch.6.
2. N.R. Dasgupta : 'Price of Agricultural Commodities and Land Transfer' in Sankhya : Indian Journal of Statistics, Vol.7, Part 3, (Calcutta, 1946) p.330.
3. Report of the Land Revenue Commission, Bengal (LRC), (Calcutta, 1940) Vol. I, P.30.  
See also Ashok Sen, 'Agrarian Structure and Tenancy Laws in Bengal, 1850-1900' in Perspectives in Social Sciences 2 (Oxford University Press, Calcutta, 1982) p.27.
4. Statistical Returns (Annual and Triennial) of the Registration Department, Bengal, for the period, 1903-1912 (Calcutta).
5. Dharm Narain, : Impact of Price Movements on areas under selected crops in India, 1900-39, (Cambridge, 1965) P.30.  
Also R.C. Desai Standard of Living in India and Pakistan 1931-32 to 1940-41 (Bombay, 1953), Ch.10, PP.173-74.  
He observes, "The Prices were collected and averaged for the period - usually 8 to 12 weeks during which the harvested produce was sold. These were thus prices during the harvesting period or 'harvest prices'. They were not the prices at the place of harvest, but at the time of the marketing of harvest", P.174.
6. Ibid., Ch.3. P.30, Desai observes, "all these prices appearing as harvest prices in the Agricultural Statistics meant different things in different provinces. This was obvious from the captions under which these prices appeared in the Provincial Season and Crop Reports, from which they were reproduced in the Agricultural Statistics. The Punjab described them simply as 'prices', Bengal, Bihar, Orissa, the United Provinces, the North-West Frontier Provinces and the Central Provinces described them as 'harvest prices' or 'prices at harvest time'. (P.174).
7. Marc Nerlove, : The Dynamics of Supply, estimation of Farmers' response to Price (Baltimore, 1958) P.51.

8. M.M. Islam, : Bengal Agriculture, 1920-46 (First Indian Edition, New Delhi, 1979)
- Also Appendix VIII to the Report on the Marketing of Rice in India and Burma (Delhi, 1941). It indicates very high rates of concentration of paddy and rice marketings in a few months after the harvest. Market arrivals of rice in Calcutta between January and April (months following the harvest of winter rice) accounted for 50 per cent of the total annual marketings of the produce.
9. R.K. Mukherjee, Six Villages of Bengal (Bombay 1971) P.225. Mukherjee made survey of six villages in the district of Bogra where the area under paddy accounted for more than 95 per cent of the total cultivated area.
10. S. Mukherjee, : 'Imperialism in action through a mercantilist function' in (B.De, et al ed.) Essays in honour of S.C. Sarkar (People's Publishing House, New Delhi, 1976) P.748.
11. S. Mukherjee, : 'Commercialization of Agriculture in Eastern India' in Perspectives in Social Sciences 2 (O.U.P. Calcutta, 1982) P.225. For data showing volume of exports (tons) and the percentage variations of the quinquennial averages see P.281 (Note 114).
12. Report on the Marketing of Rice in India and Burma (Delhi, 1941). Appendix VII to the Report shows approximate retention, utilisation and marketable surplus of the crops of India and Burma.
13. For the recent arguments against the hypothesis of forced commercialization see M.M. Islam, 'Problem of Agricultural Indebtedness in British India: Re-consideration of Traditional views about its origin in the light of data from the Eastern Region'. (Unpublished Paper).
- Also Omkar Goswami, The Jute Economy of Bengal, 1900-47: A Study in the interaction between the industrial, trading and agricultural sectors (Appendix to Ch.3, PP.125-26). D.Phil Thesis, University of Oxford, July, 1982.
14. L.R.C. Vol.III, P.81.
15. Bengal Paddy and Rice Enquiry Committee (Calcutta, 1940), Vol.I, Ch.IV, Para 39, P.28.
16. Bengal Board of Economic Enquiry (Calcutta) 1933-34, Bulletin on Bankura, Part II, Pp.8-9.
17. Ibid., Part. III, P.10.
18. Report of the Bengal Provincial Banking Enquiry Committee (1929-30) (Calcutta, 1930), Vol.2, Evidence, Part.I, P.139.

19. Ibid., Vol.2, Evidence, Part.I, P.118.

20. L.R.C., Vol.IV, Pp 236-76.

21. For such qualitative evidence see P. Chatterjee, 'Agrarian Structure in Pre-partition Bengal' in Perspectives in Social Sciences 2.

Also S. Mukherjee, 'Changes in Rural Credit Structure and their impact on changing class relations in Bengal Agriculture, 1933-42.  
(Unpublished Paper).

Table - I

Correlation between Sale/Mortgage of Land and Harvest Price of Winter Rice in the West Bengal districts (1905/6—1941-42/1905/6—1929-30/1930-31—1941-42)  $R_1$  = Coefficient of correlation between harvest price & land sales.  $R_2$  = Coefficient of correlation between harvest price & Mortgages. Figures between brackets indicate T. Statistics.

	<u>Periods</u>	$R_1$	$R_2$
Burdwan	Whole(1905/6-1941/42)	0.640 (4.784)*	0.380 (2.361)
	I (1905/6-1929/30)	0.742 (5.079)*	0.380 (1.888)
	II (1930/31-1941/42)	0.645 (2.671)**	-0.541(-2.036)**
Midnapore	Whole(1905/6-1941/42)	0.737 (6.466)*	0.374 (2.385)
	I (1905/6-1929/30)	0.587 (3.485)*	0.378 (1.963)
	II (1930/31-1941/42)	0.932 (8.138)*	-0.702(-3.125)*
Birbhum	Whole(1905/6-1941/42)	0.765 (7.04)*	0.523 (3.635)*
	I (1905/6-1929/30)	0.771 (5.824)*	0.446 (2.390)**
	II (1930/31-1941/42)	0.886 (6.06)*	-0.655(-2.746)**
Bankura	Whole(1905/6-1941/42)	0.615 (4.548)*	0.426 (2.750)*
	I (1905/6-1929/30)	0.794 (6.145)*	0.190 (0.908)
	II (1930/31-1941/42)	0.910 (6.960)*	-0.796(-4.165)*
Howrah	Whole(1905/6-1941/42)	0.534 (3.742)*	0.644 (4.986)*
	I (1905/6-1929/30)	0.813 (6.713)*	0.799 (6.373)*
	II (1930/31-1941/42)	0.574 (2.222)**	-0.307(-1.021)
Hooghly	Whole(1905/6-1941-42)	0.833 (8.932)*	0.521 (3.619)*
	I (1905/6-1929-30)	0.730 (5.132)*	0.492 (2.712)**
	II (1930/31-1941/42)	0.885 (6.033)*	-0.665(-2.817)**
Nadia	Whole(1905/6-1941/42)	0.640 (4.922)*	0.422 (2.75)*
	I (1905/6-1929/30)	0.773 (5.861)*	0.229 (1.128)**
	II (1930/31-1941/42)	0.822 (4.580)*	-0.476(-1.713)

Table 1 Contd.

	<u>Period</u>	<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>
24-Parganas	Whole (1905/6-1941/42)	0.506 (3.478)*	0.556 (3.960)*
	I (1905/6-1929/30)	0.803 (6.475)*	0.705 (4.775)*
	II (1930/31-1941/42)	0.833 (4.766)*	-0.631(-2.571)**
Murshidabad	Whole (1905/6-1941/42)	0.814 (8.305)*	0.442 (2.919)*
	I (1905/6-1929/30)	0.832 (7.212)*	0.508 (2.829)**
	II (1930/31-1941/42)	0.883 (5.977)*	-0.591(-2.320)**
Malda	Whole (1912/13-1941/42)	0.807 (7.233)*	0.644 (4.465)*
	I (1912/13-1929/30)	0.669 (3.608)*	0.679 (3.704)*
	II (1930/31-1941/42)	0.864 (5.449)*	-0.611(-2.445)**
Dinajpur	Whole (1912/13-1941/42)	0.752 (6.051)*	0.808 (7.257)*
	I (1912/13-1929/30)	0.808 (5.496)*	0.700 (3.930)*
	II (1930/31-1941/42)	0.655 (2.747)**	0.275 (0.904)
Jalpaiguri	Whole (1912/13-1941/42)	0.574 (3.66)*	0.620 (4.10)*
	I (1912/13-1929/30)	0.606 (3.048)*	0.635 (3.290)*
	II (1930/31-1941/42)	0.844 (4.993)*	-0.149(-0.478)

\*Significant at 1% level

\*\*Significant at 5% level

The whole period as well as the first sub-period of the study begin from 1912 for the districts of Malda, Dinajpur and Jalpaiguri.

Sources : (1) Statistical Returns (Annual/Triennial) of the Registration Department, Bengal (1905-1941).

(2) Season and Crop Reports (Annual) of Bengal (1905/6-1941/42).

Table - 2

Correlation between Sale/Mortgage of Land and Price  
(Harvest and Retail) of Rice in Bengal (1911/12-1939/40)

<u>R<sub>1</sub></u>	<u>R<sub>2</sub></u>	<u>R<sub>3</sub></u>	<u>R<sub>4</sub></u>
0.862 (8.511)*	0.808 (6.874)*	0.861 (8.522)*	0.958 (16.761)*

R<sub>1</sub> = Co-efficient of Correlation between Sale of Land and Harvest Price of Rice.

R<sub>2</sub> = Co-efficient of Correlation between Mortgage of Land and Harvest Price of Rice.

R<sub>3</sub> = Co-efficient of Correlation between Sale of Land and Retail Price of Rice.

R<sub>4</sub> = Co-efficient of Correlation between Mortgage of land and Retail Price of Land.

Figures within brackets indicate T. Statistics.

\* Significant at 1% level.

Sources : (1) Statistical Returns (Annual/Triennial) of the Registration Department, Bengal (1911 - 1939).

(2) Season and Crop Report (Annual) of Bengal (1911/12-1939/40).

(3) Dharm Narain, Impact of Price movements on areas Under Selected Crops in India, 1900-1939. Cambridge, 1965, p.

The fitted linear trends of sale (no. of deeds) and mortgage (no. of deeds) of land for the sub-periods of \*(I) 1905/6-1929/30 and II (1930/31-1941/42)

	<u>Periods</u>	<u>Fitted linear trends of Sale</u>	<u>Fitted linear trends of mortgage</u>
Burdwan	I (1905/6-1929/30)	17649.57 + 313.7069 t	14725.17+162.5407 t
	II(1930/31-1941/42)	14318.909+1143.5909 t	14714.03-3032.13 t
Midnapore	I (1905/6-1929/30)	36308.36 + 504.7169 t	35039.11+ 287.07 t
	II(1930/31-1941/42)	11516.91 +3846.2831 t	28723.67-1603.46 t
Birbhum	I (1905/6-1929/30)	11303.40 + 246.62 t	7298.72 + 290.61 t
	II(1930/31-1941/42)	5589.14 +1040.71 t	8989.03 - 641.44 t
Bankura	I (1905/6-1929/30)	8701.71 + 65.3007 t	11680.39- 41.48 t
	II(1930/31-1941/42)	4791.56 + 722.00 t	8570.32-580.63 t
Hooghly	I (1905/6-1929/30)	9595.24 + 198.92 t	5868.47+ 146.49 t
	II(1930/31-1941-42)	6547.44 + 439.92 t	7549.41- 556.18 t
Howrah	I (1905/6-1929/30)	6658.38 + 176.27 t	4558.15+ 142.15 t
	II(1930/31-1941/42)	6199.53 + 481.98 t	7343.08- 478.0629 t
Nadia	I (1905/6-1929/30)	3755.23 + 232.15 t	5018.47+ 60.04 t
	II(1930/31-1941/42)	4245.52 + 361.82 t	6203.12- 501.88 t
24-Parganas	I (1905/6-1929/30)	16903.18 + 415.1492 t	196225.37- 581.53 t
	II(1930/31-1941/42)	8506.7885+2402.3916 t	29204.98-1826.86 t
urshidabad	I (1905/6-1929/30)	9354 .87 + 322.00 t	5662.09+ 307.71 t
	II(1930/31-1941/42)	3703 .44 +1078.61 t	10624.42- 826.71 t
Malda	I (1912/13-1929/30)	10649 .21 + 75.45 t	6099.35 + 130.52 t
	II(1930/31-1941/42)	182 .32 + 941.68 t	5548.98- 428.58 t
Dinajpur	I (1912/13-1929/30)	14245 .21 + 481.32 t	11963.28+ 632.0464 t
	II(1930/31-1941/42)	6667.38 +1113.8391 t	13260.24- 996.06 t
Jalpaiguri	I (1912/13-1929/30)	3886.07 + 69.51 t	2762.14+ 123.64 t
	II(1930/31-1941/42)	2397.23 + 283.58 t	3891.68- 307.18 t

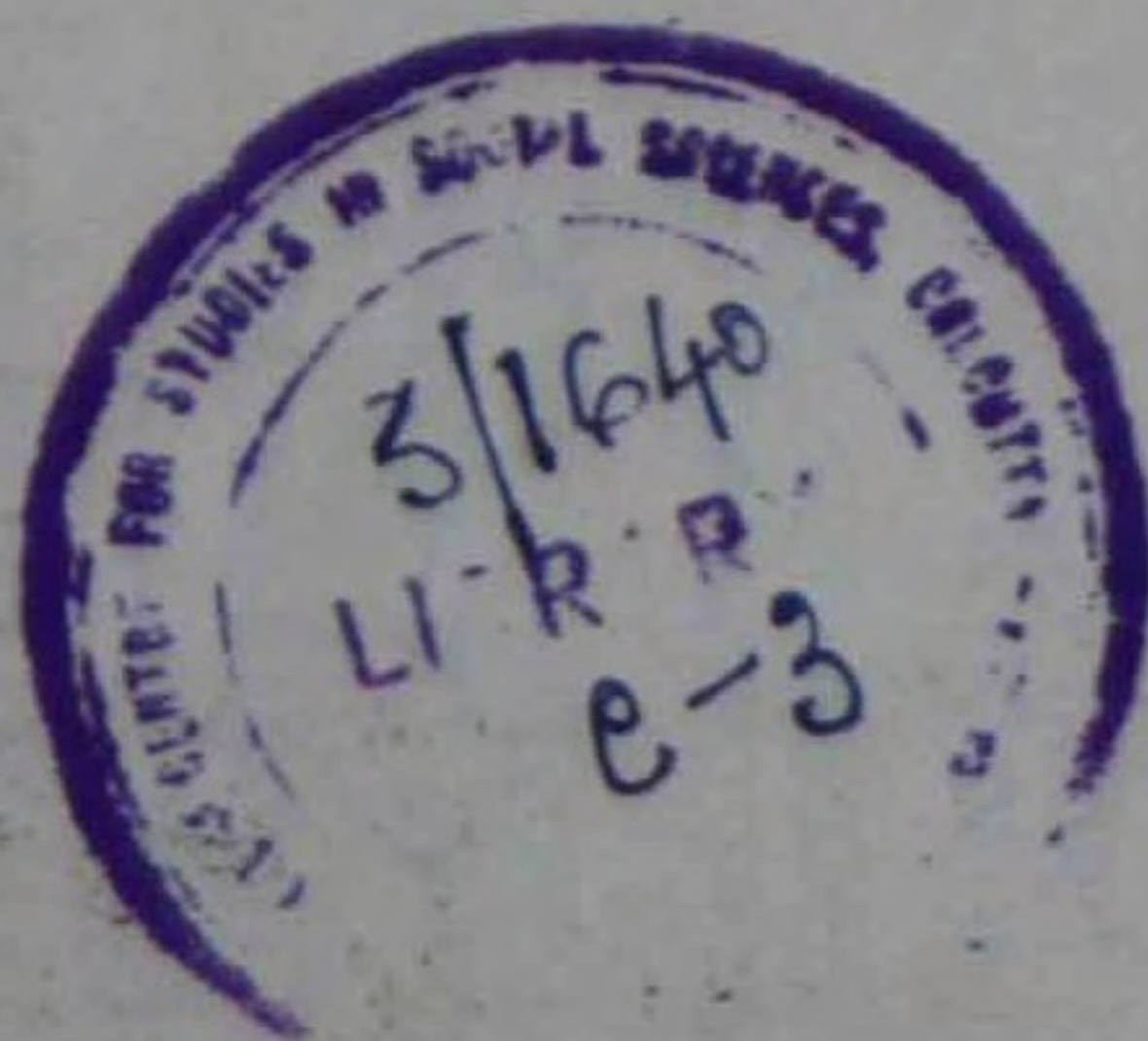
Table 3 contd....22/

\* For the districts of Malda, Dinajpur and Jalpaiguri the Sub-period I begins from 1912/13.

t Trend values are in number of deeds.

tt Trend Values are in number of deeds.

Sources : Statistical Returns (Annual/Triennial) of the Registration Department, Bengal, (1905/6-1941/42).





35 Coming of Gunpowder and the Response of Indian Polity

IQTIDAR ALAM KHAN

36. The Formation of a Transport Network in an Export Oriented Economy : Brahmaputra Valley, 1839-1914 (*Geographical Review of India*)

50. More About Parsi Seths : Their Roots, Entrepreneurship and Comprador Role, 1650-1918

AMALENDU GUHA

51. Money and Credit as Areas of Conflict in Colonial India

AMIYA KUMAR BAGCHI

	<u>1930/31</u>	<u>1931/32</u>
Burdwan	252.52	228.51
Midnapore	230.68	216.32
Birbhum	173.50	172.48
Bankura	230.68	216.32
* Howrah	378.63	366.38
Hooghly	267.63	253.91
Nadia	254.11	235.42
* 24-Parganas	778.62	778.78
Murshidabad	172.88	156.35
Malda	187.71	143.19
Dinajpur	174.41	194.93
* Jalpaiguri	<u>845.86</u>	<u>427.76</u>

Source : St  
De

Average Value Per Document of Property Transferred  
by Sale or Exchange.

	<u>1930/31</u>	<u>1931/32</u>	<u>1932/33</u>	<u>1933/34</u>	<u>1934/35</u>	<u>1935/36</u>	<u>1936/37</u>	<u>1937/38</u>	<u>1938/39</u>	<u>1939/40</u>	<u>1940/41</u>	<u>1941/42</u>
Burdwan	252.52	228.51	224.44	192.02	181.74	169.74	164.18	176.60	173.83	150.02	159.33	168.70
Midnapore	230.68	216.32	213.99	204.80	181.57	189.26	171.19	172.98	152.95	146.37	145.91	142.08
Birbhum	173.50	172.48	159.24	137.52	135.82	116.62	117.89	113.20	109.78	<del>103.20</del>	113.12	111.14
Bankura	230.68	216.32	213.99	204.80	181.57	189.26	171.19	172.98	152.95	146.37	145.91	142.08
*Howrah	378.63	366.38	318.51	368.73	281.71	324.52	350.90	312.97	306.18	330.48	325.26	334.10
Hooghly	267.63	253.91	223.34	208.31	209.90	217.74	207.95	206.85	212.63	172.70	179.42	182.94
Nadia	254.11	235.42	245.05	220.58	236.58	196.69	207.62	200.07	188.56	144.31	171.94	160.49
*24-Parganas	778.62	778.78	674.72	690.41	688.54	683.18	834.38	787.96	760.45	553.51	660.31	737.94
Murshidabad	172.88	156.35	155.80	143.40	134.54	130.86	120.87	122.15	114.63	102.83	105.15	109.95
Malda	187.71	143.19	149.21	137.74	125.32	137.85	130.05	146.80	126.13	105.94	122.71	116.82
Dinajpur	174.41	194.93	126.08	115.48	105.76	<del>97.55</del>	<del>97.83</del>	<del>104.36</del>	<del>94.22</del>	95.63	110.91	107.16
*Jalpaiguri	<u>845.86</u>	<u>427.76</u>	<u>382.05</u>	<u>329.66</u>	<u>265.59</u>	<u>271.29</u>	<u>257.74</u>	<u>249.38</u>	<u>235.38</u>	<u>217.85</u>	<u>230.84</u>	<u>224.99</u>

Source : Statistical Returns (Annual/Triennial) of the Registration Department, Bengal. (1930—1941).