CHAPTER IV
MORTGAGE AND TRANSFER OF LAND AS AN ASPECT
OF COMMERCIALISATION

Given a combination of adverse factors like a high rate of interest, the seasonal price fluctuations in the output market and the smallness of their absolute income, it is hardly surprising that the debt obligations of the vast majority of cultivators increased over time. However, the debt obligations of a peasant fluctuated over years, depending upon the fluctuations in his income. The fluctuations in a peasant's income are caused by changes in his output, and changes in agricultural prices to the extent that a part of his produce enters monetised exchange. Since fluctuations in output and prices are inversely related (see Figs. 4.1 to 4.6), the net effect of a change in output on the income of the peasant depends upon the relative changes in output and price, and the degree of monetization of his output.

Our historical analysis (in Ch. III) showed that the indebted small peasants who were caught in the process of forced commerce sold a part of their rice output in order to meet their cash obligations, the principal among them being their prior debt. Furthermore, our statistical analysis (in the Appendix to Ch. III) indicated that the quantity of the peasants' sales were negatively related to market
Fig. 4.1 Output and harvest price of winter rice (Cutack). The curve of price is placed inverted so that its vertical scale runs from top downwards. (Data of Statistical Appendix, Table 1, Col. 2, and Table 5, Col. 2)
Fig. 4.2 Output and harvest price of winter rice (Balasore). The curve of price is placed inverted so that its vertical scale runs from top downwards. (Data of Statistical Appendix, Table 1, Col. 5, and Table 5, Col. 4)
Fig. 4.3 Output and harvest price of winter rice (Puri). The curve of price is placed inverted so that its vertical scale runs from top downwards. (Data of Statistical Appendix, Table 1, Col.9, and Table 5, Col.6)
Fig. 4.4 Output and harvest price of autumn rice (Sambalpur). The curve of price is placed inverted so that its vertical scale runs from top downwards. (Data of Statistical Appendix, Table 1, Col. 13, and Table 5, Col. 9)
Fig. 4.5 Output and harvest price of winter rice (Sambalpur). The curve of price is placed inverted so that its vertical scale runs from top downwards. (Data of Statistical Appendix, Table 1, Col. 12, and Table 5, Col. 8)
Fig. 4.6 Output of rice in Orissa and wholesale price of rice in Cuttack. The curve of price is placed inverted so that its vertical scale runs from top downwards. Price of 1907 is plotted against output of 1905–07 and so on. The time scale refers to output. (Data of Statistical Appendix, Table 1, Col. 15, and Table 4, Col. 3)
Fig. 4.7 Relative changes in output of rice in Orissa and the wholesale price of rice in Cuttack. In case of price, every point above the 100 axis represents an increase in relation to the preceding year, every point below, a decrease.

In case of output, the vertical scale runs from top downwards, i.e., every point below the 100 axis represents an increase in relation to the preceding year and so on.

Percentage change in price between 1907 and 1908 is plotted against percentage change in output between 1906-07 and 1907-08 and so on. (Data of Statistical Appendix, Table 1, Col. 15, and Table 4, Col. 3)
prices. In view of this, we can reasonably assume the cash obligations of an indebted small peasant to be more or less rigid. Starting from this assumption, which is corroborated by macro-level data, we can trace the effects of changes in output and price on the peasant's income more formally with the help of algebra.

An indebted peasant faces a more or less rigid cash obligation, say $M_i$. In any period he sells $S_i$ units of his output $Y_i$, measured in physical units ($S_i \leq Y_i$), at price $P^{*i}$, in order to obtain $M_i$. Hence $S_i \cdot P^{*} = M_i \ldots (1)$

After meeting his fixed cash obligations, the available rice balance with the peasant is $Z_i$ units.

$$Z_i = Y_i - S_i \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (2)$$

Assuming that the agricultural sector consists of only indebted peasants, numbering $n$, the total agricultural output is, $Y = \sum_{i=1}^{n} Y_i$, and the total marketed surplus is,

$$S = \sum_{i=1}^{n} S_i = \frac{1}{P^*} \cdot \sum_{i=1}^{n} M_i \ldots (3)$$

The total available rice balance with the peasants, after meeting their cash obligations is,

$$Z = \sum_{i=1}^{n} Z_i = \sum_{i=1}^{n} Y_i - \sum_{i=1}^{n} S_i = Y - S \ldots \ldots \ldots (4)$$

Now, the peasants have to repay their kind loans and meet their consumption requirements out of the available

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1. $P^{*}$ is the price realised by the peasant, which is different from the market price, $P$. This distinction is important as will be seen below.
The change in the size of the available rice balance (z) with respect to a marginal change in the size of the harvest (y), is

\[ \frac{dz}{dy} = 1 - \frac{ds}{dy} \]

Now, \( \frac{ds}{dy} = -s \frac{M_1}{p^*} \cdot \frac{dp^*}{dy} \) (using relation 3).

Hence, \( \frac{dz}{dy} = 1 + \frac{dp^*}{dy} \cdot \frac{s}{p^*} \)

\[ = 1 + \frac{dp^*}{dy} \cdot \frac{y}{p^*} \cdot \frac{s}{y} \]

\[ = 1 + e \cdot s \] \( \ldots (5) \)

\[ e = \frac{dp^*/p^*}{dy/y} \]

Where \( s \) is the proportion of output marketed and \( e \) is the elasticity of the price realised by the producers with respect to output.

In order that there is no change in the available rice balance with the peasants, when output changes, \( \frac{dz}{dy} = 0 \).

Since \( e \) is negative (see Figs. 4.1 to 4.7), it implies that \( |e| = \frac{1}{s} \) \( \ldots (6) \)

From (5) we also have, \( |e| \leq \frac{1}{s} \) implies \( \frac{dz}{dy} \geq 0 \).

If \( |e| < \frac{1}{s} \), then the available balance of rice declines (rises) as a result of a decrease (increase) in output.
When the available balance of rice in a year falls below the minimum level of subsistence, the peasants are compelled to contract loans, if they have no surplus from the previous years or if the surplus is less than the difference between the available balance of rice and their minimum subsistence requirements. However, if the peasants' condition is such that they take credit in years of good harvest, then their debt obligations will increase in a year of poor harvest, if \( |e| < \frac{1}{g} \).

The price realised by the farmers differs from the market price \( (P) \) by the trade margin \( (m) \).

\[ P^* = P - m \quad \text{(7)} \]

What we actually observe is only \( P \). Hence, we can only know the elasticity of market price with respect to output, call it \( E \). However, \( e \) is actually a function of \( E \).

\[ e = \frac{dp^*}{dy} \cdot Y = \frac{dp^*}{dp} \cdot \frac{dp}{dy} \cdot \frac{y}{p^*} \cdot \frac{p}{p^*} = E \cdot g \quad \text{(8)} \]

\[ E = \frac{dp^*/dp}{dy/y}, \quad g = \frac{dp^*/p^*}{dp/p} \]

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2. When the peasants are in debt, their consumption is pushed to the minimum level of subsistence, say \( C \). Their outstanding kind debt is \( K \) (both \( C \) and \( K \) are in physical units). The fact that they are indebted in years of good harvest implies that \( Z < C + K \), in years of good harvest. Hence, in a year of poor harvest, \( Z < \frac{C + K}{s} \), if \( |e| < \frac{1}{g} \).

3. See Ch. III, Section 5 above.
Hence \( \frac{dZ}{dy} = 1 + E_g s \) \[ (9) \]

\( g \) is the elasticity of price realised by the peasants \((P^*)\) with respect to market price \((P)\). However, \( g \) cannot be calculated because we have no data regarding either \( P^* \) or \( m \). We can only guess the sign and magnitude of \( g \), with help of the available indirect evidences.

The peasants sold more (less) when the market price decreased (increased) (see the Appendix to Ch. III, Section 4). However, the amount of the peasants' sales were influenced by the price they actually received rather than the market price. Therefore, the inverse relation between peasants' sales and market price implies a direct relation between market price \((P)\) and the price realised by the peasants \((P^*)\). Thus, \( g > 0 \).

However, \( g = \frac{dP^*}{dP} \cdot \frac{P}{P^*} \)

\[ = \frac{P}{P^*} - \frac{dm}{dP} \cdot \frac{P}{P^*} \] (from relation 7)

\( g=1 \) if \( \frac{P}{P^*} - \frac{dm}{dP} \cdot \frac{P}{P^*} = 1 \)

or. \( \frac{dm}{dP} \cdot \frac{P}{P^*} = \frac{P}{P^*} - 1 \)

or. \( \frac{dm}{dP} \cdot \frac{P}{P^*} = \frac{m}{P^*} \)

or. \( \frac{dm}{dP} \cdot \frac{P}{m} = 1 \)
or, \( h = 1 \)

For \( h \leq 1 \), \( g \leq 1 \) \hspace{1cm} (10)

\( h \) is the elasticity of the trade margin with respect to market price, or the index of the hold of the trader on the peasant. Thus, the magnitude of \( g \) depends upon the relative bargaining positions of the peasant and the trader in fixing \( P^* \) vis-a-vis \( P \). However, the bargaining position of the majority of the peasants, who sold their output under compulsions of debt, vis-a-vis the trader was rather weak. The latter always had the upper hand in fixing the price at which the small peasants sold their output (see Ch. III, Section 5). In this situation, it is quite likely that when market price increased, the traders' margin increased more than proportionately, such that \( h > 1 \). Therefore, 

\( g < 1 \) \hspace{1cm} (11)

From relation (9) we know that for \( \frac{dZ}{dY} = 0 \),

\[ \left| E \right| \cdot g = \frac{1}{8} \] \hspace{1cm} (12)

When \( g < 1 \), condition (12) implies that a fraction of the elasticity of market price with respect to output must be equal to the inverse of the proportion of output marketed, in order that the available balance of rice with the peasants does not change as output changes.

From the data we have regarding market price and output of rice, it is evident that generally \( |E| \) was around one.
The highest value of \(|E| \approx 2\), was reached in 1918-19 (see Fig. 4.7).

Though we do not have direct data on \(s\), we know that during 1906/07 to 1921/22, roughly 5% to 10% of the annual gross produce of rice was exported (see the Appendix to Ch. III, Section 3). In view of this if we consider the value of \(s\) to be 0.4 or 0.5, we will be considering a very high proportion. However, \(|E| \geq \frac{1}{2s}\), even if we consider \(|E| = 2\) and \(s = 0.5\).

Thus, given the elasticity of market price with respect to output and the proportion of output marketed, it was very likely that the available rice balance with the indebted peasants declined when output decreased. Further, we know that the petty peasants borrowed even in years of plentiful harvests (see Ch. III, Section 3). It follows that they borrowed even greater amounts in years of poor harvest. In general, we can reasonably expect to find an inverse relationship between the amount of harvest and the amount of debt contracted.

Every year an indebted peasant had to meet his debt obligations. As long as the dues could be met from the current output, debt could be settled through transactions in the output market. But when the debt obligations could not be met from current output the peasant was compelled to
either contract fresh loans or transfer his assets in order to meet the demands of his creditor. Often the debt obligations of the peasant were allowed to accumulate and it was not immediately necessary to sell the assets even though his debt obligations could not be met from his current income. However, this was essentially an interim arrangement which only postponed asset transfer for a while.

While contracting a loan the peasant almost always pledged some asset. In rural credit markets, the collaterals were valuable metals such as gold and silver, even brass utensils, standing crop, land and other means of production, and the future labour service of the debtor. When it became clear that the peasant was not in a position to settle debt through transactions in the output market the money-lender or grain-lender generally insisted upon the transfer of the mortgaged asset lest the loan became irredeemable.

In the coastal districts of Orissa, 45% of total agricultural debt in 1929 was actually secured against registered mortgages of "occupancy rights" in land (see Ch. III, Section 3). However, the home farms provided the principal source


of livelihood to the small peasants. Besides, given the sheer magnitude of surplus labour in the agricultural sector and the limited employment opportunities in the wage labour market, the peasant faced a serious threat of starving, if he lost his land. Thus, land and other own means of production were his assured sources of livelihood. Consequently, the petty peasant was strongly attached to his land and resisted its transfer as long as he could.

In view of the strong resistance put up by the petty peasants, it required an even stronger compulsion to bring about land transfer. This compulsion was provided by the debt mechanism. The fantastically high rates of interest charged on the loans contracted by the petty peasants, created a situation where their current output was insufficient to meet their debt obligations. When the dues of a peasant exceeded his maximum ability to repay ( = his gross produce), and there was no other means of settling debt, he agreed to transfer his land, as a last resort in settling his outstanding debt. The consequent participation of a small peasant in the asset market was then only an extension of his forced involvement in the output market. Both were involuntary. For, in both cases he was compelled by his

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debt obligations and not influenced by considerations of "gains from trade". Thus the process of forced commerce was a wider process encompassing both output and asset markets.

The question of land transfer is closely linked with the ability of the peasant to settle his debt out of his current income. Given the high rate of interest and the large initial debt, it is quite likely that the debt obligations of a peasant exceed his current output even in a year of plentiful harvest. However, in a year of poor harvest his income is even lower, as the increase in price does not adequately compensate for the fall in output. Hence, it is more likely that the debt obligations cannot be met from the peasant's current income in a year of low output. Although it is not necessary that all outstanding debt is settled in the current period, it is still likely that we will notice an inverse relation between the amount of harvest and the amount of land transferred. However, transfers of land are not necessarily confined to the years of low output since the peasant's current income can fall short of his outstanding debt obligations even in years of plentiful harvest.

We now proceed to test the above set of conjectures and hypotheses with available statistics relating to mortgage
and transfer of land in Orissa during 1901-1930. However, we must start with a discussion on the nature and sources of the data.

_Agricultural Statistics of India, vol. I_, provided annual statistics of the number of cases and area of tenant-rights transferred in each of the 4 districts, for the period from 1908-09 to 1918-19. These related to the official years, ending on 31st March. A distinction was made between transfers effected voluntarily and compulsorily. Transfers effected through private contract or gift, exclusive of transfers due to inheritance, were considered voluntary. Compulsory transfers meant transfers made by the order of a civil or revenue court. In addition to transfers by inheritance, transfers effected through the Land Acquisition Act and transfers of temporary nature like simple mortgages, redemption of mortgages, and leases were excluded. However, mortgages with possession (or usufructuary mortgages) were included. Although compulsory transfers should have included transfers effected through orders of revenue as well as civil courts, figures for the

latter were not available for the 4 Orissa districts till 1914-15. 8

By far the most reliable sources of land transfer data for the colonial period were the annual and triennial Reports on the Administration of the Registration Department, published by the various provincial authorities. 9 These reports provided statistics relating to transfers of immovable property effected through registered documents. However, immovable property included "land, buildings, hereditary allowances, rights to ways, lights, ferries, fisheries or any other benefits to arise out of land, and things attached to the earth, or permanently fastened to anything which is attached to the earth, but not standing timber, growing crops nor grass". 10 Land included all the rights in land such as proprietary rights, revenue free

8. Ibid., 1916-17, vol. I, Table No. 6, p. 263n.


properties, intermediary tenures of all kinds and ryoti rights or tenant-rights.

The various kinds of deeds of transfers registered were Gifts, Sales, Exchanges, Mortgages, Leases, other instruments registered under section 17, clauses (b) and (c) of the Bengal Registration Manual, or section 5 of the Indian Trusts Act, 1882, instruments registered under section 18, clauses (a) and (b) of the Bengal Registration Manual, Awards (Section 17, clause 1), certified copies of decrees and orders of court, and Miscellaneous registrations.

Sales, Exchanges, Mortgages and Leases were further subdivided into various categories, the first three according to the value of the property transferred and the last by the length of time for which the document was executed. Sales, Exchanges and Mortgages were divided into two categories each, of value equal to or more than Rs.100, and less than Rs.100. In the Reports, Sales and Exchanges statistics were shown together, Leases were divided into three categories: (i) Perpetual leases, (ii) Other leases, (iii) Optional leases granted for a period of one year or less.

Registration of documents of Gifts, Sales and Exchanges of both kinds, and leases for more than one year were compulsory. But till 1904, only Mortgages of value equal
to or greater than Rs.100 were compulsorily registered. From 1905, registration of all Mortgages were made compulsory and shown together in the Reports.

The Registration Reports provided annual statistics relating to the number of cases and value of property transferred through each kind of instrument. Up to 1901-02, these data related to the official years. From 1903, they related to calendar years. As mentioned earlier no distinction was made in these statistics between land (or ryoti rights in land) and other immovable property. However, till 1914 separate statistics relating to the number and value (not area) of sales of ryoti holdings were available.

We have mainly used the data provided in the Registration Reports since they covered the entire period of our study and provided separate statistics for mortgages and sales. Besides, these data relate to calendar years and enable us to clearly see the impact (if any) of the fluctuations in the rice harvest on land transfer, as the rice crop was harvested during October to December. However, these statistics are available only for the three coastal districts because registration of land transfer was normally not allowed in Sambalpur, owing to the restrictions imposed by the Tenancy Act.
Sales and mortgages were the predominant forms of transfer of immovable property. Together they accounted for 92.5% in Cuttack, 91% in Balasore and 93.5% in Puri, of all the cases of compulsory registrations during 1901-02 to 1930. However, only Sales accounted for 64.6% in Cuttack, 52.2% in Balasore and 67.6% in Puri. On the other hand Leases accounted for only 4.4% in Cuttack, 5.6% Balasore and 4% in Puri of the total number of instruments compulsorily registered during the entire period.

Let us first consider the mortgages. The registration data refer to all immovable property including the ryoti rights in land. In case of sales, where separate statistics for sales of ryoti rights are available for some years, it is seen that most of the cases of sales related to ryoti rights (see below). Hence it is perhaps not unreasonable to use the mortgages of all immovable property as a proxy for the mortgages of ryoti rights. Further, no distinction was made between simple and usufructuary mortgages in the registration statistics. However, we know that usufructuary mortgages were rare in coastal Orissa. Thus the bulk of the mortgages were actually simple mortgages.

11. See Ch. III, Section 3.
There were two distinct phases in the trend of the annual number of mortgages registered. Between 1901-02 and 1920, the number of mortgages increased at a significant rate, by 303% in Cuttack, 168% in Balasore and 127% in Puri. However, between 1920 and 1930, they declined by 46% in Cuttack and 49% in Puri. In Balasore there was a fall during 1920-25, then it increased during the next five years but did not reach the level of 1919 and 1920.12

In order to study the relationship between fluctuations in agricultural output and mortgages, we plotted the rice output series and mortgages series together for each district such that the mortgages curve is placed inverted over that of output. The mortgages curve is much more smooth than the output curve in each case and clearly shows rough cyclical movements (see Figs. 4.8, 4.9 and 4.10). The cyclical fluctuations in the time-series of mortgages very closely reflect the cyclical fluctuations in the time-series of output of rice, in an inverse manner - a peak in the former corresponding to a trough in the latter and vice-versa, sometimes with a lag of one or two years.

12. See Statistical Appendix, Table 6, Col.3, Table 7, Col.3, and Table 8, Col.3.
Output of rice and number of mortgages of immovable property (Cuttack). The curve of mortgages is placed inverted such that its vertical scale runs from top downwards. Plotted against output of 1902-03 is the mortgages of 1903 and so on. The time scale refers to mortgages. (Data of Statistical Appendix, Table 1, Col.4, and Table 6, Col.3)
Fig. 4.9  Output of rice and number of mortgages of immovable property (Balasore). The curve of mortgages is placed inverted such that its vertical scale runs from top downwards. Plotted against output of 1902-03 is the mortgages of 1903 and so on. The time scale refers to mortgages. (Data of Statistical Appendix, Table 1, Col. 7, and Table 7, Col. 3)
Fig. 4.10 Output of rice and number of mortgages of immovable property (Puri). The curve of mortgages is placed inverted such that its vertical scale runs from top downwards. Plotted against output of 1902-03 is the mortgages of 1903 and so on. The time scale refers to mortgages. (Data of Statistical Appendix, Table 1, Col.11, and Table 8, Col.3).
Coming to the annual fluctuations it is seen that mortgages and output generally moved in opposite directions. Out of the total of 29 years, the directions of movements in output and mortgages were similar only for 8 years in Puri, 9 years in Balasore and 11 years in Cuttack. However some of these cases can be actually explained with lags. In case of Cuttack district, the direction of movement of mortgages during the years 1904, 1913, 1917, 1920, 1923 and 1930 can be explained by the direction of movement of output in 1902-03, 1911-12, 1915-16, 1918-19, 1921-22 and 1928-29 respectively. The direction of movement of mortgages in Balasore during the years 1904, 1907, 1913, 1915, 1917, 1921 and 1925 can be explained by the direction of movement of output in 1902-03, 1905-06, 1911-12, 1913-14, 1915-16, 1919-20 and 1923-24 respectively. Similarly, in case of Puri, the direction of movement of mortgages in each of the years 1907, 1916, 1918, 1923 and 1927 can be explained by the direction of movement of output in the immediately preceding agricultural year.

Most of the observations showing movements in the same direction between output and mortgages occurred due to sudden annual fluctuations (small) in output which did not get immediately reflected in the movement of the mortgages. This was
due to the fact that the movements in the latter were rather smooth, i.e., when mortgages declined (increased) they generally continued to do so for a number of years together in spite of a relatively small decline (increase) in output in between.\textsuperscript{13} Only a major fluctuation in output caused a peak or trough in the mortgages curve.

Thus the behaviour of mortgages vis-a-vis output indicates that, as output declined and particularly when the decrease was substantial the number of loans contracted increased significantly. This broadly confirms our hypothesis, outlined towards the beginning of this chapter. Besides, although the total value of mortgages increased significantly in years of heavy registrations, the average value of mortgages generally declined in those years.\textsuperscript{14} This implies that either the number of small loans were relatively more when large number of mortgages were registered, or there was a tendency for the collaterals (here land) to be undervalued compared to normal times, when the demand for credit was large, or both. Thus, most of the credit was actually taken

\begin{enumerate}
\item The mortgages curves are smoother than the sales curves in case of all the 3 districts (see Fig.4.6 to 4.13). Further research is required to explain this phenomenon.
\item See Statistical Appendix, Table 6, Col.5, Table 7, Col.5 and Table 8, Col.5.
\end{enumerate}
by the small peasants under distress.

We have data relating to the number and value of ryoti rights sold during 1901-02 to 1914. The sales of ryoti holdings accounted for the bulk of the total number of sales of all immovable property. As a proportion of the total number of sales, the number of sales of ryoti rights increased between 1901-02 and 1914, from 58% to 73% in Cuttack, from 73% to 84% in Balasore and from 78% to 85% in Puri.\(^{15}\) Besides, the annual fluctuations in the number of sales of ryoti rights and the total sales were always in the same direction (see Figs. 4.11, 4.12 and 4.13). Hence, total sales can be taken as a proxy for ryoti sales, for the period 1915-1930.

Over years, the number of sales of ryoti rights increased substantially. Between 1901-02 and 1914, the increases were by 113% in Cuttack and 71% in Balasore.\(^{16}\) In Puri it increased by 62% between 1903 and 1914.\(^{17}\) As in the case of

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15. *Ibid.*, Table 6, Col. 15, Table 7, Col. 15 and Table 8, Col. 15.

16. See Statistical Appendix, Table 6, Col. 12, and Table 7, Col. 12.

17. The number of sales of ryoti holdings in 1901-02 in Puri was rather high, higher than the figures for the next 5 years. See *Ibid.*, Table 6, Col. 12. Hence 1903 was used as the base.
mortgages, the total number of sales increased during 1901-02 to 1920, by 256% in Cuttack, 147% in Balasore and 105% in Puri; between 1920 and 1930, they declined by 44% in Cuttack and 41% in Puri. In Balasore, there was a decrease during 1920-1925, then it increased during the next 5 years but was still below the average level reached during 1916-1920.18

To analyse the relation between output and sales we plot the rice output series and the two sales series together for each district such that the curves of sales are placed inverted over that of output (see Figs. 4.11, 4.12 and 4.13). We notice an inverse relation between sales and output, sometimes with a lag.

In Cuttack, between the number of sales of ryoti rights and the output, there were only 2 years of similar movements, out of the 13 years. However, during the period 1915-1930, there were 7 occasions when total sales and output moved in same direction. When we look at these observations more carefully, it seems that most of them may be explained by the behaviour of output with a lag. In 1917 and 1918, sales declined even though output declined.

18. See Statistical Appendix, Table 6, Col.8, Table 7, Col.8 and Table 8, Col.8.
Fig. 4.11 Output of rice, number of sales of raiyati holdings and total number of sales of immovable property (Cuttack). The curves of sales of raiyati holdings and total sales are placed inverted such that their vertical scales run from top downwards. Plotted against output of 1902-03 are the sales of raiyati holdings and total sales of 1903 and so on. The time scale refers to sales. (Data of Statistical Appendix, Table 1, Col. 4, and Table 6,Cols. 6 and 12)
Fig. 4.12 Output of rice, number of sales of raiyati holdings and total number of sales of immovable property (Balasore). The curves of sales of raiyati holdings and total sales are placed inverted such that their vertical scales run from top downwards. Plotted against output of 1902-03 are the sales of raiyati holdings and total sales of 1903 and so on. The time scale refers to sales. (Data of Statistical Appendix, Table 1, Col. 7, and Table 7,Cols. 8 and 12)
Fig. 4.13 Output of rice, number of sales of raiyati holdings and total number of sales of immovable property (Puri). The curves of sales of raiyati holdings and total sales are placed inverted such that their vertical scales run from top downwards. Plotted against output of 1902-03 are the sales of 1903 and so on. The time scale refers to sales. (Data of Statistical Appendix, Table 1, Col.11, and Table 8,Cols.6 and 12)
But the output of 1915-16 was exceptionally good (the best in 30 years) and despite the losses in 1916-17 and 1917-18, output remained at a fairly high level. Thus it is not surprising that sales declined marginally in these years. The increase in sales in 1920, despite the substantial recovery in output in 1919-20 over 1918-19, can be attributed to the fact that output of rice in 1918-19 was exceptionally low. 1923 was preceded by three years of rising output. Thus, while output fell in 1922-23 by a small proportion (9%), the sales continued to decline. However, in the next year, with no change in the level of output, sales increased. In 1927, a fall in sales in spite of a fall in output may be due to an increase in the number of mortgages registered during that year (see Fig.4.8).

In Puri, the directions of movement of sales of ryoti rights and output were opposite except for 2 years, during 1901-02 to 1914. Both these cases can be explained by an one year lag effect of output. During 1915-1930, total sales and output moved in same direction in 5 years. Of these, two can still be explained by our hypothesis. In 1922-23 rice output declined very slightly but the sales too declined. The decline in sales was a continuation of the process of the previous two years, which was caused by
rising output during 1920-21 and 1921-22. The decline in sales in 1925 in spite of the decrease in output in 1924-25 may be explained by an increase in the number of mortgages in that year (see Fig.4.10).

In Balasore, the number of cases of similar movements between sales and output were much larger. The number of sales of ryoti holdings and output moved in the same direction in 6 cases, during 1901-02 to 1914. Again, during 1916 to 1930, between the number of total sales and output there were 9 instances of movements in the same direction. However, 10 of these 15 cases may be explained by the behaviour of output in the previous years (i.e., one year lag).

Thus, sales of land were inversely related to the level of output of the current or the previous year. Besides, most of the sales were of small magnitudes - of value less than Rs.100. This indicates that most of the cases of sale related to small plots sold by the small peasants (also see below). Furthermore, the average value of all sales and ryoti sales, like the average value of mortgages, generally declined in the years of heavy land sales. It

19. Ibid., Table 6, Cols.6 and 7, Table 7, Cols.6 and 7, Table 6, Cols.6 and 7.

20. Ibid., Table 6, Cols.11 and 14, Table 7, Cols.11 and 14, Table 8, Cols.11 and 14.
suggests that, as in the output market, the small peasants sold more in the asset market when the prices of the assets were lower, compelled by the mechanism of debt.

When land transfer is inversely related to agricultural output, it is quite likely that land transfer would be directly related to agricultural prices, since agricultural prices and output are inversely related. In fact, Karunamoy Mukerji has found a strong positive correlation between land transfer and agricultural prices in Bengal during 1926-43.\(^{21}\) However, he attributes causation to this correlation. He argues that an increase in agricultural prices raises the income of the cultivator which increases his creditworthiness which in turn leads to greater borrowing and transfer of the peasant’s land.\(^{22}\) This hypothesis has two crucial elements. Firstly, a rise in agricultural prices \textit{ipso facto} leads to an increase in the income of the peasant. Secondly, fresh borrowing seems to be identified with settlement of past debt through land transfer. The first proposition is not backed by facts.\(^{23}\) However, assuming, for the moment,

\begin{enumerate}
  \item \textit{Ibid.}, pp.76 and 61.
  \item Can it be argued that the income of the small peasants in Bengal increased during the famine of 1943, since the agricultural prices registered a fantastic increase in that year?
\end{enumerate}
that Mukerji's proposition holds, the peasant's creditworthiness increases due to an increase in agricultural prices.

But why should he necessarily contract more loans immediately? In order that this happens, there should be greater need for borrowing when his income increases. On the contrary, the peasant needs to borrow more when his income falls. Again, let us assume that the peasant contracts more loans when his income increases due to a rise in agricultural prices. But why should he transfer more land immediately? In fact, there is usually a time lag between borrowing and repayment of debt. Besides, if the peasant's current income increases in a year of higher agricultural prices, his ability to meet his past debt obligations from his current income too increases. In such a situation there is less need for selling his asset to repay the debt.

In Orissa a very large amount of land was transferred from the small indebted peasants. During 1903-1912, 8% of the total area of occupancy holdings in coastal Orissa changed hands. In Cuttack district there were 104,432 cases of sales of ryoti holdings (76,268 of parts of holdings and 28,164 of entire holdings) covering an area of 68,677 acres.

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24. See James, op. cit., p. 28.
(47,539 acres for part holdings and 21,138 acres for entire holdings) or 8.8% of the total occupancy area; in Balasore, 51,232 cases of sales of ryoti holdings (34,104 of parts of holdings and 17,128 of entire holdings) covered an area of 49,148 acres (29,589 acres for part holdings and 19,559 acres for entire holdings) or 7.6% of the total occupancy area; in Puri 30,980 cases of sales of ryoti holdings (24,333 of parts of holdings and 6,647 of entire holdings) covered an area of 21,679 acres (15,626 for parts of holdings and 6,053 for entire holdings) or 6.5% of the total occupancy area.25 According to the estimates of the investigators of the Provincial Banking Enquiry Committee, 20% of the occupied area of the 3 districts was transferred during the 20 years preceding 1929.26

The bulk of the purchasers were ryots. During 1903-1912, of the total ryoti land transferred in the 3 districts, 70% were purchased by ryots, 16.4% by money-lenders and traders and 13.2% by landlords.27 The data available for the later period suggest that the share of the ryots in the

25. Ibid., Appendix V.
27. See James, op. cit., p. 29.
purchases of ryoti holdings was even higher. During 1921-1932, of the total ryoti land transferred in coastal Orissa, 86% were purchased by ryots, 7.6% by money-lenders and 5.2% by land-lords. However, from these data it should not be construed that the sellers and purchasers of ryoti land belonged to the same class and hence there was no disposses­sion of the petty peasants. In fact, the available qualitative information and even some indirect quantitative information point to the contrary.

The land-sellers were petty indebted peasants. On the other hand, those who purchased land belonged to the group of rich and substantial cultivators. J.F.W. James, the Settlement Officer of Orissa during 1906-12, remarked: "Most of the purchasers are prosperous raiyats living in the village". M.C. Mishra, an experienced officer, was of the opinion that the purchasers of raiyati land were "generally rich, substantial raiyats or mahajans". However, rich raiyats and mahajans were not mutually exclusive categories. Actually, the largest section of the village money-lenders

28. These figures are calculated from W.W. Dalziel, op. cit., Appendix IV-A, B and C.
29. James, op. cit., para 73.
were raiyats having savings in grain or money. In addition to lending, the rich and substantial cultivators used their savings to purchase land. In fact, grain and money were lent with a view to grab the debtors' land, apart from earning an usurious interest. Thus, when the indebted peasants were forced to sell their land, it passed on to the creditors and those who had the means to purchase land. As a result, the holdings of the rich and substantial ryots and the mahajans grew in size. On the other hand, many small peasants lost their entire holdings, many others lost parts of their holdings.

31. See Ch. III, Section 2.


Also, fortunes earned in other fields such as trade were used to purchase land. See Report of the Bihar and Orissa PBEC, vol. III, Note of interview with Subani Sahu, p. 40.


34. Ibid., evidences of M.C. Mishra, p. 519 and Maulavi K.S. Muhammad, p. 646.
A complete distribution of agricultural households over sizes of holdings, and the amount of land owned by each size group are not available for any point of time during the period studied here. However, partial and sample distributions, showing average size of holdings and the percentages of households owning holdings of size of 2 or 3 acres or less, are available for different points of time from various official reports. In 1888, P.K. Roy, Deputy Collector of Balasore, estimated the average area of a ryot's holding in Balasore at about 3 acres. He also found that 70% of the ryots owned holdings of size 3 acres or less. During the settlement operations of 1890-1900, the Settlement Officer, Maddox, estimated on the basis of enquiries made in 26 villages in Cuttack district, that 56% of the families held over 2 acres each, 30% held 2 acres or less, and 14% had only homestead land. The average size of the agriculturists' holding was found to be 3.23 acres. At the same time, in Balasore district the average size of holding was estimated at 3.67 acres.

35. These estimates were based on some road cess returns and other papers on six estates under settlement and one estate under partition. See Report on the Condition of the Lower Classes of Population in Bengal, 1888, (Calcutta, 1888), Orissa Division, p.5.


37. Ibid., p.132 footnote.
Officer of Orissa during 1906-12, provided the structure of land distribution in 76 sample villages of Balasore district.\(^{38}\) It showed that the average size of an agriculturist's holding was 5.4 acres. 15% of the cultivators held less than 2 acres each and accounted for only 3% of the total land held by the agriculturists. James was of the opinion that the average size of holdings in Cuttack was less than that in Balasore.\(^{39}\) In 1929 the Provincial Banking Enquiry Committee observed, "the size of the average holding has been estimated at 4 to 5 acres" in the coastal districts of Orissa.\(^{40}\) Thus, there was perhaps an increase in the average size of holdings in the coastal districts of Orissa, implying a growing concentration through land transfer.

Table 4.1

<table>
<thead>
<tr>
<th>District</th>
<th>Average size of holdings in acres in 1888</th>
<th>1900</th>
<th>1912</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuttack</td>
<td>-</td>
<td>3.23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Balasore</td>
<td>3</td>
<td>3.67</td>
<td>5.4</td>
<td>-</td>
</tr>
<tr>
<td>3 districts of Coastal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4to5</td>
</tr>
<tr>
<td>Orissa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. James, op. cit., p.22.
Although the available data relating to the process of land transfer in Sambalpur are limited, it still seems that the process in Sambalpur was essentially similar to the process in coastal Orissa. During the settlement operations of 1906 it was found that 12,052 acres or 2.35% of the total occupancy land in the khalsa area were transferred by cash sales since 1896.\(^\text{41}\) Also, ryoti land was often sold under the garb of exchange of plots among the ryots themselves or between the ryots and the landlords.\(^\text{42}\) However, cash sales concerned only small plots and were rare in comparison to debt and mortgage transactions. By far the most important mode of transfer was usufructuary mortgage. The richer cultivators found this to be the most convenient way to grab the land of their debtors. They advanced money and took possession of the borrowers' land with the hope that the latter would not be able to repay the loans and agree to part with their land. These transactions were conducted by the agriculturists themselves, in defiance of law. At the time of the settlement operations of 1906, 9,663 acres or nearly 2% of occupancy land in the khalsa area were held

\(^\text{41}\) Dewar, op. cit., p.23.
\(^\text{42}\) Khan Bahadur Mohd. Hamid, op. cit., p.56.
under usufructuary mortgages. The total amount of occupancy land transferred by sale, mortgage etc. during 1889-1906 was estimated to be "not less than 10 per cent...and probably much more". During the decade prior to the settlement of 1926, 60,711 acres or 6% of the total occupancy land of the district were transferred. Thus land was transferred from the poorer ryots to richer ryots. The gaontias also acquired ryoti land in the process. The process of land transfer quickened the differentiation among the peasantry. There was a growing concentration of land and capital with the money-lenders. However, as in the coastal districts, they were mostly agriculturists. Among the ryots, three distinct classes emerged above the rank of the labourer. The richest ryots were close to the gaontias in terms of wealth. In fact, some rose from the ranks of ryots to become gaontias.

43. Dewar, op. cit., p.23.
44. Khan, Bahadur Mohd. Hamid, op. cit., p.56.
45. Dewar, op. cit., p.23.
46. Ibid., p.24.
47. Ibid., p.20.
48. These men, belonging to the castes of Brahman and Kulta, brought up villages from the aboriginals. Ibid., pp.16 and 21.
There also clearly emerged a class of substantial peasants with "adequate holdings, good stock, and savings". The gulf between this class and the lowest class, comprising the indebted ryots with small holdings, widened over time.  

The process of land transfer in Orissa brought about a gradual reduction in the size of holdings of the indebted peasants. Some even lost their entire holdings.  

Thus, for the majority of peasant households, the opportunities to raise their subsistence, through employment of family labour in their own farms, became less. For another sizeable section it ceased to exist. Workers belonging to these groups often leased in land on a crop-sharing basis from the non-cultivating land owners. Many of them hired themselves as agricultural labourers or farm-servants, often to their...

49. Ibid., p.20.  
However, a large number had to emigrate to distant places like Assam and the 4 metropolitan districts of Bengal in search of employment (see Ch.V).