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AN INTRODUCTORY OVERVIEW OF
COMMERCIALISATION OF INDIAN AGRICULTURE

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By K.N. Raj

For a long time commercialisation of agriculture was viewed by economists in rather general terms, essentially as a means by which specialisation was promoted within agriculture and its productivity raised or, in a still broader framework, as a principal element in the transition from pre-capitalist to capitalist modes of production. Differences among agrarian economies in their initial conditions, biases introduced by the nature of particular products and technologies, dissimilarities in response and in consequences on account of differences in systems of land tenure, credit and marketing, and a variety of other factors that tend to affect the processes of change resulting from exposure to forces of commercialisation received relatively little attention. Much of the literature on development economics has also tended to assume away some of these important issues involved in the transformation of agrarian economies.

Social and economic historians by comparison have taken much more interest in agrarian systems and in the commercialisation of agriculture. This is reflected in a number of studies relating to India dealing with the conditions in the Mughal period that encouraged the cultivation of cash crops, the elements introduced under British administration that brought about major qualitative and quantitative changes in the situation, and the processes of commercialisation in particular crops and regions in the subsequent period.

Thus we know that crops such as cotton, tobacco and sugarcane were grown fairly extensively even before the advent of British rule, since land revenue had to be paid mostly in cash and the prices of these crops were much higher at that time relatively to the prices of foodgrains. Irfan Habib has also drawn

* Prepared for Essays on the Commercialization of Indian Agriculture, edited by K.N. Raj, Neeladri Bhattacharya, Sumit Guha and Sakti Padhi (under publication by the Oxford University Press for the Centre for Development Studies, Trivandrum)

pointed attention to some other important feature of the production systems in the Mughal period such as that there were considerable differences in the size of cultivated holdings; that the larger holdings were linked to, and often resulted from, superior positions or status secured either as headmen or as members belonging to "dominant elements" at the village level; that cultivation by big peasants in these holdings was based on wage labour drawn from "menial castes" (estimated at between a fifth and a quarter of the rural population at that time); and that it was in such holdings that cash crops like cotton, tobacco and sugarcane were grown, as they required higher investment.

Several features that have come to be associated with agrarian society in India in more recent times would thus appear to have been there already in embryonic form. Yet commercialisation of agriculture at that time corresponded only to the requirements of a traditional 'revenue economy' in which the main form of revenue payable happened to be an indistinguishable mix of tax, tribute and land rent. Actually the element of rent in land revenue is likely to have been rather small in view of the relative abundance in which land was available then. The ability of the dominant elements in village society to operate relatively large holdings with wage labour must have itself depended therefore largely on their privileged position in the system of revenue collection, which would have made it possible to appropriate a part of the surplus payable as revenue from the general run of the peasantry and utilise it (as a kind of 'wage fund' in effect) for employing the necessary labour. In other words, the considerable economic differentiation that could be observed within the peasantry at that

+ Irfan Habib, "The Systems of Agricultural Production: Mughal India", and "Agrarian Relations and Land Revenue: North India", in The Cambridge Economic History of India, Vol.I, c.1200 - c.1757, edited by Tapan Raychaudhuri and Irfan Habib (Orient Longman, 1982)

time reflected not so much the impact of market forces as the power of 'command' and 'custom' within the framework of traditional societies.#

Moreover, though the need to pay land revenue in cash was the initial compelling force for marketing of agricultural produce, the large surpluses so extracted from agriculture, without a flow of goods and services in the reverse direction in exchange, was basically an impediment to further commercialisation. For it to be otherwise, the gains from trade had to accrue to those engaged in agriculture in a form (and to a degree) that could provide the resources and incentives necessary for sustained increases in productivity.

The situation was not very much changed from this point of view even after the advent of British rule, as the administration remained heavily dependant on land revenue for its sustenance and the surplus absorbed from agriculture on this account continued to be quite large. However, since the primary concern of the rulers from then on was expansion of commerce, some of the policies followed in pursuit of this objective introduced market forces into agriculture in a manner and on a scale that had not happened before. Thus land was first rendered marketable in principle when legal recognition was given to sale, mortgage and leasing as rights associated with its ownership. In due course it acquired also considerable commercial value when (and where) amounts much in excess of the land revenue payable could be extracted as rent from cultivators by those in whom proprietary rights were vested. The process of rising land values was further helped by growth of population and infra-structural investments in irrigation, communications and transport, particularly

For an analysis of the role of 'custom' and 'command' in relation to non-market and market economies, see John Hicks, A Theory of Economic History (Oxford University Press, 1969), Chapter II.

in regions with obviously high commercial potential. With rising value of land and expanding opportunities for trade in agricultural produce came also inflow of finance from outside the agrarian society, through urban traders and money-lenders as well as from those primarily interested in securing rental income from landed property.

Conditions were thereby created in which markets for land, credit and labour could develop in varying degrees along with the markets for agricultural produce, and growing proportions of the income originating in agriculture were appropriated as rent, interest and profits additionally to the land revenue payable. Several studies relating to this period have drawn attention to the resulting breakdown of customary relationships and conventions within village society; transfers of land through sale, mortgage or leasing; increase in rural indebtedness; forced sales of produce; eviction of peasants, and changes in contractual arrangements with labour. But we do not still have any clear understanding of how all this affected production systems within agriculture how far agricultural production was based on own land and labour, whether transfers of land led to cultivation being organised more widely in small holdings relying mainly on leased-in land and family labour or in relatively large operational holdings based primarily on owned land and wage labour, to what extent there were inter-regional (and intra-regional) differences in this regard, how far they could be traced to soil and climatic conditions and thus to the feasible cropping patterns, and what difference was made to productivity levels in agriculture.

This set of issues raises a number of other important questions relating to the experience during the British period. How were the dominant elements at the village level earlier, who were known to have operated relatively large

holdings with wage labour, affected by the new systems of revenue assessment and collection? Were they able to secure proprietary or at least occupancy rights over lands in their possession, or were they displaced by elements from outside? If they managed to secure such rights, as seems highly probable (except perhaps initially in areas of permanent settlement of land revenue), was it worthwhile for them to continue operating their holdings with wage labour, or was it more advantageous to lease out land to those with smaller holdings and live on the rental income that could be now appropriated after meeting revenue demand? To what extent did the choice depend on the caste composition of these dominant elements at the village level, and what were the inter-regional differences on this account?*

* That there have been significant inter-regional differences in caste structure is evident from data for even broad groups collected in the Fourth Round (April-September 1952) of the National Sample Survey. "Hindu households have been divided by the National Sample Survey into four caste groups — upper, middle, lower and scheduled. 'The upper castes were defined as those who, according to custom, used the sacred thread, the middle as those from whom the Brahmins take water by tradition and the lower as the other castes who were not scheduled'. The basis of the division between 'the upper castes' and 'the middle castes' — namely the use of the sacred thread — is perhaps not a very meaningful one when applied to North India (since some among the lower castes are also known to wear the sacred thread in North India). The distinction between 'the middle castes' and 'the lower castes' — based on the water criterion — is, however, perhaps more dependable.....In North, North-West and East India, the upper caste households form a much higher percentage of the total rural population than in South, West and Central India. There are differences of a similar order in the proportion of middle caste households. In fact, if upper and middle caste households are grouped together (which, for reasons indicated earlier, might also help to make the data more comparable as between regions), it will be seen that while they account for 56 percent of the total rural population in North India, 50 per cent in North West India, and nearly 45 per cent in East India, the same two groups of households form only 7 per cent of the rural population in South India, about 12 per cent in West India, and 15 per cent in Central India". Cf. K.N. Raj, "Regional and Caste Factors in India's Development", in Tensions of Economic Development in South-East Asia, edited by J.C. Daruvala (Allied Publishers Pvt.Ltd., Bombay 1961). See also The National Sample Survey, No.14, Report on Some Characteristics of the Economically Active Population (The Cabinet Secretariat, Government of India, 1959), Ch.4, p.28.

Unfortunately the hard facts now available to us for answering such questions are fragmentary and scattered. A high proportion of the land under cotton in Berar (now Varhad in eastern Maharashtra) is known to have been cultivated in relatively large holdings with wage labour from even early 19th century (if not still earlier)[†]. Evidently superior grains such as wheat were also similarly grown (along with cotton, sugarcane and indigo) by Jat farmers in the extensively irrigated Doab plains of the then United Provinces⁺⁺; and rice by cultivators belonging to the Kamma caste in the newly irrigated areas of Krishna district of Andhra[‡]. In fact, summing up the changes in agrarian relations in Northern and Central India, it has been observed that "despite all the revolutions in the revenue collecting rights and proprietary titles, and despite the widening of economic differentials in the village from the time when the stillness of the pax Britannica first fell upon the land, the upper and middle agricultural castes remained firmly rooted in their ancient localities and hardly altered in their cultivating possession"[§]. How far this was also true of other parts of the country, and approximately what proportion of the total area was being therefore cultivated

+ C.Rammanohar Reddy, Cotton and Agricultural Labourers in Berar, (c.1860-1920)", paper presented at the Seminar on Commercialisation in Indian Agriculture, November 23-25, 1981, at the Centre for Development Studies, Trivandrum.

++ Elizabeth Whitcombe, Agrarian Conditions in Northern India, Vol.I: The United Provinces under British Rule, 1860-1900 (University of California Press, 1971), p.32.

‡ G.N. Rao, "Transition from a Subsistence to Commercialised Agriculture: Problems, Potentialities and Results - A Study of Krishna District of Andhra in the 19th century", paper presented at the Seminar on Commercialisation in Indian Agriculture.

§ Eric Stokes, "Agrarian Relations: Northern and Central India", in The Cambridge Economic History of India, Vol.II, c.1757 -- c.1970, edited by Dharma Kumar (Orient Longman, 1982)

in relatively large operational holdings, is nevertheless a matter which requires more investigative study.

There seems however little reason to doubt that cultivation in such relatively large holdings has been a persistent feature of Indian agriculture, even if not to the same extent in all regions. This is obvious from a number of sample surveys on land holdings conducted in the 1950s soon after the end of British rule. Thus, according to the data available from National Sample Survey reports on the subject relating to 1953-54 and 1954-55, less than 9 per cent of the operational holdings in the country had within them more than half of the total area under such holdings.⁺ Though this could perhaps be explained in part by eviction of tenants with inferior rights in the immediately preceding years (in fear of ownership rights accruing to them through various measures of land reform proposed ^{around} / that time) there is in fact no evidence of eviction during this period on a scale large enough to account for anything more than a small proportion of this area. Making a generous allowance for it one would be justified in presuming that at least one-third, more likely around two-fifth, of the total cultivated area was being operated towards the closing years of the British period by no more than about one-tenth of all rural households.

In this respect the position in India seems to have been significantly different from that in China. Though data for China are even more scanty for this period such information as is available suggests that, while distribution of ownership holdings was perhaps no less unequal than in India, the distribution

⁺ See K.N. Raj, "Ownership and Distribution of Land", Indian Economic Review, Vol.V, No.1, April 1970.

of operational holdings was less skewed.⁺⁺ One can only speculate how far this was due to special features of the agrarian social structure in India (such as the caste hierarchy and the existence of a large landless proletariat drawn mostly from outside it)[@]; data available for the early 1950s do certainly reflect a broad correspondence between 'caste' and 'class' as well as important inter-regional differences in this regard.[‡] To what extent

++ "The provinces of Shensi, Shanxi, Hopei, Shantung, and Honan, where some two-thirds of the farmers are stated to be owners are the original home of Chinese agriculture... The yield of the soil is too low to make it an attractive investment to the capitalist, while the farmer has not the resources to rent additional land. In the south, where the soil is more productive agriculture yields a surplus; the commercialisation of economic relations has proceeded further; and both the inducement and ability to invest capital in land are accordingly greater". R.H. Tawney, Land and Labour in China (1932), Ch. II See also Ramon H. Myers, The Chinese Peasant Economy: Agricultural Development in Hopei and Shantung, 1890-1949 (Harvard University Press, 1970), Ch. 14

@ "The possession of a rural proletariat on this scale, much before the coming of capitalist agriculture, is surely a unique achievement of Indian cultivation". Op.cit. Irfan Habib.

‡ The following observations on this question are based on data available from the National Sample Survey (Fourth Round, April-September, 1952):

'In agriculture, a distinction has been made four categories of the occupation: (i) 'Farmers', defined as tillers 'who cultivate their own land mainly with hired labour'; (ii) 'Cultivators', defined as those 'who cultivate land mainly owned by them, and sometimes land taken on lease or share-cropping system, with the help of other household members and partly with hired labour'; (iii) 'Share-croppers' who take up 'cultivation of others' land on a crop-sharing basis and cultivate without hired labour'; and (iv) 'Agricultural labourers'. 'Farmers', in this categorization, represent, broadly speaking, the upper class, 'cultivators' the middle, and 'share-croppers' and 'agricultural labourers' the lower class — though, it must be added that the category of 'cultivators' is so extensive in its coverage that a large proportion of them are likely to belong, in effect, to the lower class in the economic structure.

.....while the 'farmer' households constituted 7 per cent of the total 52.9 million Hindu rural households in the upper caste they accounted for about one-fourth. On the other hand, among agricultural-labour households, which contributed about one-fifth to the total rural households, on

the pattern of distribution of operational holdings is explained by soil and climatic conditions, compelling widespread reliance on livestock for ploughing and on relatively capital intensive methods of irrigation such as deep wells, Persian wheels, and large reservoirs, and how much systems of revenue administrations have over a period contributed to it, are matters

per cent of the upper caste families were accounted for. At the other extreme, 36 per cent of the scheduled caste families belonged to the agricultural-labour category and only 1.5 per cent were 'farmer' households.

That there is a broad correspondence between 'caste' and 'class', at the two extremes, appears to be thus borne out by these figures. But it is also clear -- particularly in the intermediate categories -- that class cuts across caste divisions. Thus nearly 7 per cent of lower caste households in the rural areas are 'farmer' households, and the number of lower caste households among the total number of 'farmer' households works out to well over 40 per cent. There is, unfortunately, no information available regarding the average size of the holdings in the case of each caste group.

Similarly, more than 18 per cent of the middle caste households, it would appear, were 'agricultural labourers' and 'share-croppers'. The number of rural Hindu households belonging to these two categories was 13.3 millions, of which the middle caste accounted for 2.2 millions. Approximately one out of every six households occupied as 'agricultural labourers' and 'share-croppers' in the rural areas belong to the middle-caste group.

In view of the very big differences in the relative importance of the upper and middle castes as between different regions theinstances of households belonging to these higher caste-groups working as 'agricultural labourers' and 'share-croppers' are perhaps more preponderant in North, North West and East India than in South, Central and West India. But, on the other hand, it seems equally likely that instances of lower caste households being occupied as 'farmers', and thus being in the top rank of the class structure, are relatively more numerous in South, Central and West India than in the other three regions'. *Op.cit.* Raj "Regional and Caste Factors in India's Development".

- + For an exploratory analysis of the difference made by soil and climatic conditions, terrain, etc. to techniques of irrigation, ploughing and other agricultural operations and thereby to the intensity of labour input in Asian agriculture, See A. Vaidyanathan and A.V. Jose, "Absorption of Human Labour in Agriculture: A Comparative Study of Some Asian Countries", in *Labour Absorption in Indian Agriculture: Some Exploratory Investigations*, by P.K. Bardhan, A. Vaidyanathan, Y. Alagh, G.S. Bhalla and A. Bhaduri (Asian Employment Programme, I.L.O., ISBN 92-2-102023-1, November 1978); also Shigeharu Ishikawa, *Essays in Technology, Employment and Institutions in Economic Development* (Kinokuniya, 1981).

which require closer study.

However, along with cultivation in relatively large holdings based mainly on wage labour, cultivation in small peasant holdings depending on leased-in land in varying degrees was also a widespread feature of Indian agriculture (in fact the feature most often highlighted by observers). National Sample Survey data for the early 1950s show that as much as 70 to 75 per cent of all agricultural holdings belonged to the smaller size-groups, accounting in no part of the country for much more than about one-third of the total operated area. Leased-in land was generally not less than one-fifth of the total area in these small peasant holdings, in fact around two-fifths in some parts of the country like Madras and the Punjab; it was in all probability very much higher in the concluding decades of British rule before land reforms conferring ownership rights on tenants were initiated.

What factors then governed the choice between leasing out land for cultivation in smaller holdings and organising cultivation directly with hired labour? Prima facie it seems probable that soil and climatic conditions, sources of supply of water, feasible cropping patterns, and the nature and intensity of the labour inputs needed were the main considerations (apart of course from those associated with the caste and social status of the land owners which could have been the more decisive factors in several regions). Thus in regions where much higher yields could be secured by intensive application of labour, as through double-cropping in rice growing areas or a suitably diversified cropping pattern (e.g. combining wheat with cotton) in adequately irrigated tracts, one might expect a strong preference for leasing out land on rent to peasants with smaller holdings. On the other hand, cultivation in relatively large holdings could have appeared more advantageous in

regions where the scope for raising yields in these ways was limited, either for lack of irrigation (as was no doubt the case in even some rice growing areas), or because less intensive application of labour was adequate for the crops that could be ordinarily grown in the given soil and climatic conditions (as in the case of millets, groundnut, cotton tobacco, and even sugarcane for which the labour inputs required are spread out at intervals over a long period). If this was so, prevalence of tenancy in small peasant holdings would have been greater in the former regions than in the latter, and the proportion of cultivated area in relatively large operational holdings correspondingly higher in the latter compared to the area under ownership holdings within the same size range.

The All-India Rural Credit Survey, conducted in 75 districts of the country in 1951-52, provides some evidence in support of these inferences. The Survey was the first attempt of its kind (and unfortunately the last) to capture in some detail, for a particular year, most of the essential dimensions of the agrarian structure for different but broadly homogeneous agro-climatic regions (having also some similarity in demographic conditions within each of them).⁺ This makes it possible to relate inter-regional differences in the extent of commercialisation of agriculture with other related characteristics such as cropping patterns, the value of gross produce per unit of land in cultivated holdings, the pattern of distribution of such holdings among cultivator families (grouped according to the relative size of their holdings), the total annual rent paid by cultivator families ⁱⁿ cash and kind for leased-in

+ The regions have been formed on the basis of certain considerations of contiguity and of similarity of physical, climatic or other natural and demographic conditions. The districts which were supposed to represent similar conditions in a contiguous area were grouped together into regions and the region is supposed to be represented by the districts chosen in the sample included within that region" Cf. All-India Rural Credit Survey, Report of the Committee of Direction (1956), Volume I, p.11.

land, wages paid in cash and kind over the year per cultivator family belonging to the upper strata, the amounts borrowed on the average during the year by such families, and the pattern of distribution of total debt among cultivator families (grouped again according to the relative size of their holdings of land). Though the methods adopted for sampling, weighting, etc. suffer from certain limitations (which have been spelt out in the Survey Report itself)⁹, the data made available by the Survey offer some useful insights into inter-regional differences in production systems within Indian agriculture, the reasons for such differences, and above all how they are linked to a significant degree with institutional (and therefore partly historical) factors underlying the distribution of land, labour and credit (not to mention the distribution of irrigation and of draught animals which are no less important) in the different regions.

One rather serious limitation to be noted is that the number of agro-climatic regions into which the selected 75 districts were grouped in the Survey Report was only 13 (unlike in the more recent National Sample Surveys which identify no less than 62 agro-climatic regions within the country). This was not really adequate to take care of the wide differences in soil and climatic conditions between areas in even close proximity to each other in many parts of the country, and ensure that each of the regions identified was homogeneous enough in respect of these conditions (despite the stress placed

⁹ "Districts in India are usually rather large in area and are populous. In most of them physical and crop conditions ^{are} different from part to part materially. The number of villages in the sample was not large and a further restriction was imposed by one-half of the sample being confined to villages with cooperative credit societies. The result has often been that all parts of the district have not necessarily been adequately represented in the sample and the total picture presented by the weighted village data for the district may not completely accord with the average picture for the whole district..... In the case of the region and the State, the limitations on the representative character is even greater because the sample of districts was not selected with reference to States or to the designated regions". Ibid. pp.9-10. It needs to be added however that the survey covered 9000 cultivator families in 600 villages (15 from each), and 8 villages were selected from each of 75 districts.

on contiguity of the districts grouped together). One has to be therefore particularly careful in making comparisons between individual regions and drawing inferences from them.

However, these regions were in turn classified under three broad categories applying certain criteria which make them conform to different degrees of commercialisation in the production and marketing of agricultural products. The categories were: (i) 'subsistence regions', in which the proportion of cash expenses to total expenses, and of cash sales of crops to the gross value of produce, were relatively very low among the cultivator families; (ii) 'monetized regions', in which these proportions were significantly higher but the relative share of 'cash crops' as traditionally understood (viz. cotton, jute, sugarcane, tobacco, oilseeds) was quite low in the net sown area; and (iii) 'commercialised and monetized regions', in which the share of such cash crops in net sown area was also high (additionally to the higher proportions of cash transactions in general). Since food crops could be the media for commercialisation of agriculture as much as the conventional cash crops, we may ignore for our purpose here the distinction drawn between the last two categories and pay attention mainly to the much broader and clearer distinction between subsistence regions (covering 27 of the selected districts grouped into 4 different regions) and what may be simply referred to as commercialised regions (composed of the remaining 48 districts grouped into 9 regions). We could also carefully identify and compare common characteristics observable for 2 or 3 regions taken together from within each of these categories. What is common to groups of regions within each, and what is different between such groups belonging to the two categories of regions, could then help us to identify at least some of the more important features associated

with subsistence and commercialised agriculture early in the 1950s and formulate hypotheses for explaining them.

This is too vast an exercise to be gone into here in any great detail but it may be useful to indicate briefly a few significant findings from an analysis of the available data along these lines:

1. The value of gross produce per cultivator family in the subsistence regions was on the average only about two-third of the value in the commercialised regions. Nevertheless, the share of the top decile of cultivator families in the total area under operational holdings was about 40 per cent in the subsistence regions (actually around 42 per cent in the two regions of Bihar-Bengal and Orissa & East Madhya Pradesh) while it was on the average less than 35 per cent in the commercialised regions (in fact lower than 28 per cent in the Assam-Bengal and Punjab-Pepsu regions). On the other hand, the average rent paid in cash and kind to landlords and co-sharers by cultivator families as a whole, expressed as a percentage of the average value of their gross produce, was nearly twice as high in the commercialised as in the subsistence regions. Even though data are unfortunately not available on the proportion that leased-in land formed of the total area in the operational holdings of cultivator families in the subsistence or commercialised regions, it appears from the above that the preference for leasing out land was less in the subsistence than in the commercialised regions and correspondingly, the tendency to organise cultivation directly was stronger in the former.
2. Consistently with the higher intensity of labour input required and the higher value of gross produce per cultivators family in the commercialised regions, the proportion of total wages and salaries paid per cultivator family (by way of cash wages, wages in kind for harvesting, etc., as well as salaries to permanent farm servants) was significantly higher in these regions, this being on the average only about 5½ per cent of the value of gross produce per cultivator family in the subsistence regions compared to 10½ per cent of it in the commercialised. The proportion represented by wage and salary payments for agricultural labour was still higher in some regions within the commercialised category such as Assam-Bengal (over 12 per cent), South Deccan (13½ per cent), East Coast (nearly 14 per cent), and Punjab-Pepsu (where it was over 18 per cent of the value of gross produce). On the other hand, wages in kind accounted on the average for about one-third of the total wages and salaries paid in the subsistence regions (indeed over one-half in Orissa and East Madhya Pradesh), while its share was less than one-fifth in the commercialised

regions (in fact less than one-tenth in the Western Cotton belt, extending from the Vidarbha districts of the present Maharashtra State to the eastern districts and plains of Gujarat) indicating a higher degree of commercialisation of the labour markets in these regions. The share of salaries paid to permanent servants was in the range of one-quarter to one-half of the total wages and salaries paid in regions belonging to both categories, reflecting the fact that the system it represented was widespread in the country: their share was lower only in Bihar-Bengal (around one-tenth) and Eastern Uttar Pradesh (about one-sixth) among the subsistence regions, and in Punjab-Pepsu (again around one-sixth) and the West Coast (where it was even lower than one-tenth) among the commercialised regions.

3. It is also evident that (i) the relative share of the top decile of cultivator families in total outstanding debt was almost uniformly lower than their relative share in the total area of land in cultivator holdings (though generally much less so in the commercialised than in the subsistence regions); and (ii) the coefficients of concentration of such debt were however generally much higher than the coefficients of concentration of land in the cultivator holdings. In fact the coefficients of concentration of debt were in the range of around 0.50 to 0.65 in as many as 11 of the 13 regions belonging to both categories, reflecting the immense advantage that those with relative large holdings of land had over others in the rural credit market (and which they obviously made use of); the coefficients of concentration of land were no higher than 0.50 (except in one region, the West Coast) and as low as 0.34 in two regions (Assam-Bengal and Punjab-Pepsu). [A statistical analysis of the relationship between coefficients of concentration of land and debt respectively in 75 districts is given in the annexure.] At the same time it must be noted that, when the current borrowings of all cultivator families are taken into account, and the amount borrowed during the year of survey is expressed as a percentage of the value of gross produce per cultivator family, there appears to be no glaring contrast between the subsistence and commercialised regions (being about 43 per cent in the former and 55 per cent in the latter); in a few regions it was higher, as in the East Coast (60 per cent) and South Deccan (about 72 per cent), not to mention the special case of Rajasthan (where it was over 150 per cent, reflecting evidently the relatively large borrowings in this region for trade in livestock). The reason perhaps is that the current borrowings were essentially for meeting working capital requirements (including what are often referred to, rather misleadingly, as 'consumption loans'), and hence broadly related by the lenders with what could be recovered from the annual gross produce of the borrowers. If this interpretation of the data is correct, the obvious implication is that a major source of advantage for those with relatively large holdings of land was simply that a higher proportion of their produce could

be marketed (whether of food or 'cash' crops); the security offered to lenders on this account, together with the collateral security provided by their holdings of land, would have made it possible for them to meet their credit requirements at not only at lower rates of interest but in greater abundance without being subject to credit rationing to the same extent as others*.

When the distribution of land, labour and credit is analysed systematically in this manner for different agro-climatic regions, taking into account the historically conditioned institutional factors as well as the technical and other compulsions governing the choice of the product-mix in each region (and sub-region), it would become possible to identify the various reasons why productivity in agriculture was (and remains) much lower in some regions than in others and the particular circumstances in which commercialisation and technological change could have led to greater exploitation of farmers and labourers without making much difference to productivity. This would also help us to understand better the conditions in which commercialisation and technological change, promoted through broadening the choices open in regard to the product-mix of agriculture introduction of higher-yielding varieties, and/or adoption of new methods of production could lead (and may have possibly led even in the past) to more positive and satisfactory results.** In the literature on Indian agriculture so far, some of the important dimensions of the agrarian structure and economy have been often either ignored or considered in isolation and referred to selectively, resulting in highly simplistic (even if superficially appealing) propositions about stagnation, growth and equity in this very vital sphere. What is clearly required is not only an adequate analytical framework but supporting empirical investigation in detail, concerning the past and the present, for as many of the numerous agro-climatic regions (and sub-regions) as one can identify in the country.

* See K.N. Raj, "Keynesian Economics and Agrarian Economies", in Reflections on Economic Development and Social Change (Essays in Honour of Professor V.K.R.V. Rao), edited by C.H. Hanumantha Rao and P.C. Johsi (1979), pp.101-130.

** An analysis of Indian experience to date along the lines indicated ⁱⁿ the above paragraphs is now under preparation by the author and is expected to be published under the title Agrarian Structure and Change in India c.1750 to 1980, not later than 1987.

With this objective in view the Centre for Development Studies in Trivandrum had initiated, from the time it began functioning in 1971, a variety of studies relating directly or indirectly to agrarian structure in different regions and sub-regions within the country (both at the macro and micro levels). They have been so far available mainly in the form of Working Papers of the Centre and through M.Phil and doctoral dissertations prepared by younger scholars within the Centre. The Centre is now taking the initiative of publishing this material in stages for making it available to a wider public.

Meanwhile, on the occasion of the completion of ten years of its existence, the Centre organised a seminar bringing together a small number of scholars with broadly similar interests, from among both economists and historians. The intention was to promote closer collaborative work among them on the subject of commercialisation of Indian agriculture. In conformity with the long-term objective, the organisation of the seminar was left wholly to the younger generation of scholars working in this field within the Centre, and this was reflected also to a considerable extent in the list of persons invited to participate in it. The seminar was funded by the Indian Council of Social Science Research and held in Trivandrum in November 1981.

The present volume is a collection of some of the papers presented at the Seminar. It has been edited by a small committee of the participants consisting of Dr. Neeladri Bhattacharya (of the Jawaharlal Nehru University), Dr. Sumit Guha (of St. Stephen's College, Delhi), and Mr. Sakti Padhi (of the Centre for Development Studies). Some of the papers discussed at the Seminar have been already published elsewhere by the authors; a few that

could not be included in this volume for reasons beyond the control of the editorial committee are also likely to be published independently in the near future.

The purpose of the Seminar, it must be stressed, was not so much to cover the subject comprehensively, or to arrive at any settled conclusions, as to stimulate interest in it and promote collaborative work between social and economic historians and economists (including theorists) for the vast amount of detailed investigation, study and reflection that remains to be done. The volume is but a modest beginning in this direction.

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ANNEXURE²

That the ability to borrow is determined by the amount of land held in possession is unequivocally indicated in a statistical analysis of the relationship. When the concentration ratio of debt is plotted against the concentration ratio of land holdings for the 75 districts given in the Rural Credit Survey Report the scatter appeared to be a straight line. Therefore, a straight line equation was estimated by the least squares method and both the equation and the coefficients were found to be highly significant.

The estimated equation is:

$$C_d = 0.3620 + 0.3906 C_b \quad R^2 = 0.24$$

$$(9.6330) (4.7992) \quad F = 23.03$$

Figures in brackets are T values, significant at 0.1% level. The estimated line is shown in the attached diagram as CC. The horizontal axis gives the concentration ratio of land, C_l , and the vertical axis the concentration ratio of debt, C_d . As the estimated equation has a positive constant term, the line cuts the vertical axis above the origin, implying that even when all land is equally distributed (i.e. when the concentration ratio of land holdings is zero) there will still be considerable inequality in the distribution of debt (0.36). This suggests that the credit worthiness of a person is not only determined by the amount of land owned by him but possibly by such other factors as caste and/or social status.

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The line OA is drawn at 45° , and along that line either of the concentration ratios will be the same. The line OA intersects CC at B, and, to the left of B the concentration ratio of debt exceeds that of land, and to the right of B the reverse will be true. Ultimately, the concentration ratio of debt seems to reach a maximum of 0.75 when the concentration ratio of land approaches unity, its maximum value.

ESTIMATED REGRESSION LINE OF

DEBT INEQUALITY

ON

LAND INEQUALITY

(4 7992) SIMILAR

