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PRESIDENTIAL ADDRESS
SUMMARIES OF GROUP DISCUSSION
AGRICULTURAL DEVELOPMENT AND DISTRIBUTION OF
LAND HOLDINGS*

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One of the observations frequently made about Indian planning is that it has not given adequately high priority to agriculture and that this is responsible for most of the problems with which the economy is beset. The criticism gathers support in periods of sharp rise in foodgrain prices and/or heavy dependence on imports of foodgrain. More generally also, the assertion that neglect of agriculture is the main explanation for the limited impression made on mass poverty and unemployment by two decades of planning seems to have considerable intuitive appeal.

A perusal of the writings on this theme makes it clear however that it is based on rather superficial inferences from estimates of the percentage share of agriculture in total investment, the realised growth rate in agriculture, marginal capital-output ratios, and the like. Questions such as how far agriculture can possibly absorb the rapid growth of the labour force, to what extent investment in other sectors is essential for expanding the overall employment and export potential of the economy, and above all whether merely increasing the allocation for agriculture in the investment programme would significantly raise the rate of growth of output in this sector are seldom given much attention in this context in spite of their obvious relevance.

A major impediment to viewing the problems of agricultural develop-
ment in a more balanced perspective has been the notion popularised by some agricultural scientists and economists that phenomenally high rates of growth of output can be achieved in this sector through the application of “modern” inputs. The conditions that have to be satisfied for such inputs being applied on the required scale, and the circumstances in which high rates of growth of output have been attained in agriculture in some countries, have not been investigated and analysed in sufficient depth.¹ This has persuaded many to believe that comparable rates of growth can be achieved in India too if only agriculture were given higher priority in planning.

The average rate of growth of agricultural output realised in India since the early ’fifties, about 3 per cent per annum, does not in fact compare

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¹ For an analysis of the illegitimate inferences drawn by economists like Professor T. W. Schultz from the experience of Mexico and Taiwan, and of the factors that have to be taken account of in assessing the prospects of accelerating the growth rate in Indian agriculture, see my paper on “Some Questions Concerning Growth, Transformation and Planning of Agriculture,” Journal of Development Planning, No. 1, Department of Economic and Social Affairs, United Nations, 1969, reprinted in Economic Development in South Asia, edited by E. A. G. Robinson and Michael Kidron, Macmillan, 1970, and in Comparative Experience of Agricultural Development in Developing Countries of Asia and the South-East Since World War II, Indian Society of Agricultural Economics, Bombay, 1972.
unfavourably with the record of other countries with similar constraints on
the availability of land and water. For instance, agricultural output in Japan
did not grow at a faster rate than 2\% per cent per annum at any time over the
period 1877-1954 and was in fact much lower in some phases.\(^2\) There is
no clear evidence either that, judged in terms of output growth, Chinese
agriculture has performed much better than Indian agriculture over the last
two decades.\(^3\) It is necessary to point this out because, while a higher rate
of growth of output is certainly desirable if it could be achieved, some of the
problems of the Indian economy attributed to poor performance in agriculture
are really traceable to other factors such as low rates of saving and the in-
adequacy of the institutional set-up for ensuring marketed supplies of the
required magnitude.

The actual experience of the Green Revolution has of course induced
some second thoughts about the prospects of accelerating the growth rate
in agriculture from the realised 3 per cent per annum to the higher level of
5 per cent per annum set as the target in the Fourth Five-Year Plan. Pro-
fessor T. N. Srinivasan, for instance, has drawn pointed attention to the
following features of the growth performance in Indian agriculture since
1964-65 (when the “new agricultural strategy” was adopted); (i) the trend
rate of growth of output of all agricultural commodities taken together has
been no higher during this period than in the 15 years preceding it (i.e., 1949-50
to 1964-65); (ii) there is no evidence either of a step-up in the rate of in-

\[\text{Foodgrain output (in million tonnes)}\]

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<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>India</th>
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<tbody>
<tr>
<td>1951</td>
<td>135.0</td>
<td>60.7</td>
</tr>
<tr>
<td>1952</td>
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<td>89.0</td>
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<tr>
<td>1970</td>
<td>240.0</td>
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\[\text{Average annual rate (compound rate) of growth of output of foodgrain} \]

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<th>India</th>
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<tr>
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<td>1952-64</td>
<td>2.20</td>
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</tr>
<tr>
<td>1964-70</td>
<td>3.20</td>
<td>3.30</td>
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2. Estimates of the average annual rate of growth of agricultural output in Japan based on the latest available data are given below:

\[\text{Year} \quad \text{1877-1885} \quad 1985-1894 \quad 1894-1905 \quad 1905-1919 \quad 1919-1931 \quad 1931-1938 \quad 1938-1954 \quad 1954-1961 \quad 1961-1971 \]

\[\text{Annual Rate (percent)} \quad 2.18 \quad 1.67 \quad 1.85 \quad 2.24 \quad 0.95 \quad 0.95 \quad 0.54 \quad 4.26 \quad \]

The source of these estimates is the paper by Kazushi Ohkawa on “Phases of Agricultural Development and Economic Growth” in Agriculture and Economic Growth: Japan’s Experience, edited by Kazushi Ohkawa, Bruce F. Johnston and Hiromitsu Kaneda, Princeton University Press, University of Tokyo Press, 1970. The following observation of Ohkawa is also relevant in this context: “... the pre-war annual peak, reached in about 1938-39, was not attained again until 1954-55... The extrapolated position of the trend line passing through 1919 and 1938 has only recently been attained.”

3. No data are available for China for agricultural output as a whole, but some estimates are available in respect of foodgrains (Gf. Alexander Eckstein, “Economic Growth and Change in China: A Twenty-Year Perspective,” The China Quarterly, No. 54, April-June, 1973) and the comparison attempted below is based on them.
crease of productivity per hectare; and (iii) even if a much lower response ratio of foodgrain output to nutrients is assumed than is appropriate for the high-yielding varieties, changes in crop pattern, changes in irrigation and changes in fertilizer use explain nearly 98 per cent of the observed increase in food production since 1964-65 (compared to only 75 per cent for the period before it)—which suggests that the increases in output have not been as large as one would have expected from these varieties and the quantity of the other "modern" inputs applied. He drew the conclusion that "exaggerated notions regarding achievements and overly optimistic assessment of the future possibilities can be harmful."4

Dharm Narain has indicated still more explicitly the various constraints on agricultural growth in India and what is needed to achieve higher rates in the future than in the past.5 The possibilities for extension of net sown area have very largely exhausted themselves and therefore the expansion of gross cropped area has to be achieved mainly through an increase in cropping intensity. Since the annual additions to the net irrigated area in recent years have averaged at nearly 2 million hectares (which is about as much as the additions realised over five-year periods between 1950-51 and 1965-66) the scope for such increase in cropping intensity has of course greatly increased. Nevertheless, even at this rate of expansion of irrigation, it is unlikely that the gross cropped area will increase by more than about 12 per cent over a decade. It follows that the growth in agricultural output will have to be achieved largely by increases in productivity per hectare. The high-yielding varieties evolved so far offer hope of such increase in productivity in the case of only a few crops. The possibility of achieving much higher rates of growth in agriculture as a whole depends therefore to a considerable degree on whether or not technological advances of a similar nature can be secured in the case of all other crops and the increases in productivity per hectare which they make possible are in fact realised.

This is not necessarily a pessimistic assessment, but what it does clearly suggest is that one cannot and should not count on a significant acceleration in the growth rate in agriculture in the near future. The country will probably have done well if it manages to sustain the rate of around 3 per cent per annum achieved in the past in spite of the now-reduced scope for extension of net sown area.

Such an assessment is however not only out of line with one of the major assumptions of the Fifth Five-Year Plan—namely that agricultural output can be raised at the average rate of nearly $4\frac{2}{3}$ per cent per annum during the


period 1973-74 to 1978-79—but poses a serious problem in implementing any of the solutions that have been suggested for tackling mass poverty and unemployment in the country. A presumption common to them all is that higher incomes for those below the poverty line (and more employment for the unemployed) can be provided only by achieving higher rates of growth of output in agriculture as well as in the economy as a whole and redistributing the increases so realised.6

It is therefore necessary to consider whether a significant dent can be made into mass poverty (and unemployment) with a rate of growth of agricultural output not much higher than has been realised in India over the last two decades. Logically there appears to be no reason why it cannot be done. As long as agricultural output grows at a faster rate than population (as has been the case so far even in foodgrains), the average per capita availability of agricultural products will continue to rise; and since the inequalities in the distribution of food is at the root of the problems of hunger and malnutrition, the increases in output required need not be of any large order if the available supplies are more equitably distributed.

Actually, even if the rates of growth of output postulated in the Fifth Five-Year Plan are realised, the relative share of the bottom 30 per cent of the population will have to be raised significantly by redistributive measures if they are to be ensured minimum levels of consumption by the end of the period.7 A lower rate of growth of agricultural output implies therefore only that the supplies of scarce agricultural products, as well as of industrial products which require them as inputs, will have to be redistributed to a greater degree. So the feasibility of realising this objective with a rate of growth of agricultural output of around 3 per cent per annum depends in the ultimate analysis on the methods of redistribution one has in mind and on the related assumptions one feels justified in making.

Of all the proposals for redistribution that have been made the most concrete has been that of Professor B. S. Minhas put forward in 1970.8 It was built around two ideas, one favouring the redistribution of large land holdings into smaller ones, and the other a programme of public works (utilizing idle labour) integrated with consolidation of land holdings and complementary

6. The assumptions generally made in these exercises, and their implications for the rate of growth of agricultural output required, have been brought out by Dharm Narain. “If the national income is planned to grow at a rate such that, given the compound growth rate of population at 2.2 per cent per annum, per capita consumer expenditure increases at 3 per cent per annum and, further, if income inequalities are sought to be reduced so as to bring down the concentration ratio pertaining to the distribution of population between the different expenditure classes from the initial level of 0.33 to 0.25 over a decade, the growth rate of demand for foodgrains would rise to over 4 per cent per annum.”... Having regard to the fact that the expenditure elasticities of demand for cash crops are around unity or above, the growth of 3 per cent per annum in the per capita expenditure would imply a growth rate of around 5.5 per cent per annum in the demand for cash crops.” “Growth and Imbalances in Indian Agriculture,” op. cit.


land and water development works. Thus it was not only a proposal for redistribution of wealth and income but also one designed to promote agricultural development.

Professor Minhas contended, and rightly in my view, that redistribution of land would not affect adversely either agricultural production or the volume of savings from agricultural incomes. He argued that, even if one had hesitation in accepting the inference drawn from studies on farm management that output per acre generally declined with increase in the size of holdings, the weaker hypothesis, that output per unit on the smaller holdings was at least as large as on the bigger holdings, was sufficient to justify redistribution of land in favour of the former. He also took the view that a high degree of skewness in the distribution of income and wealth was not necessarily conducive to larger savings; that there is an error in "our basic understanding of the relationship between the distribution of personal income (and wealth) and the choice of production techniques in family enterprises on the one hand and the generation of savings on the other," and, more specifically, that "the hypothesis of a direct relationship between 'more skewness in the distribution of land and more savings' is wrong in the case of Indian agriculture."

However, even redistribution of land would not by itself get very far in helping those below the poverty line, particularly if one set not only a ceiling but also a floor to the size of holdings. Hence the need for a programme of public works for improving land and water supply, as this would help both to provide additional employment for those who did not have land and to raise agricultural productivity for sustaining such additional employment. But one of the most serious bottlenecks in undertaking any comprehensive programme of public works for raising agricultural productivity was excessive parcellization of holdings. It was therefore essential to make compulsory consolidation of land holdings an integral part of such a programme.

Professor Minhas went on to argue that the present procedure for consolidation of land holdings was not adequate for this purpose. Its major weakness according to him, arose from the fact that no land improvements were brought into effect when consolidation was undertaken and, "because of the externalities in land development process, the individual owners are unable to assess the development potential for different classes of land."

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9. The need to investigate more closely the savings behaviour of household enterprises was emphasized earlier by Professor C. T. Kurien in his Indian Economic Crisis: A Diagnostic Study, Asia Publishing House, 1969.

10. Professor Minhas assumed that "the purpose of land redistribution is not to turn non-farmers into farmers but only to improve the position of small cultivating operators," and therefore postulated a land redistribution policy in which the ceiling was set at 20 acres, non-landowning, non-cultivating households would not receive any additional land from the surpluses yielded by the imposition of the ceiling, and the surpluses would be distributed among the households in the four lowest size classes of household operational holdings in such a way that per capita ownership of land in these four classes was absolutely equal.

11. "Consolidation of land holdings by itself will produce very limited results. A program of public works in rural areas, conceived and executed without being anchored to consolidation and realignment of property rights in land is likely to leave little impact on the productive capabilities of small farmers. The usual rural works programs are ill-planned and tend to be of the make-work variety... An integrated program of land consolidation and complementary development work is needed..." Minhas, op cit.
market for land was riddled with imperfections and institutional restrictions, and consequently very few inter-class transfers of land took place. He concluded that, since the set-up in the market for land was such that it was "suggestive of an n-person, non-co-operative, game-theoretic situation, in which each person comes in with a given amount of land for different types but lacks information about its development potential," individual interest would produce a solution that would be collectively inoptimal. To this failure of the land market Professor Minhas attributed the large measure of infructuousness in irrigation development at the field level and, more generally, the failure of technical progress in agriculture to percolate to the majority of farmers with small holdings.\textsuperscript{12}

Upto this point I find myself wholly in agreement with Professor Minhas. Differences arise however when he implies that this is the only part of the market mechanism that seriously hampers growth of agricultural productivity by misallocation of resources, and also when he goes on to suggest a procedure for the distribution of developed, consolidated land that depends wholly on market processes. The latter rests in fact on the workability of the kind of auctioning mechanism ("tattonement") that was proposed by Leon Walras as part of his general equilibrium analysis—despite the very serious questions that have been raised about the usefulness of general equilibrium theory itself for understanding real-world problems.\textsuperscript{13}

\textsuperscript{12} "...... individual behaviour is frequently inoptimal in the presence of informational deficiencies or in the presence of externalities, which for institutional or other reasons, cannot be internalised. The latter problem is well illustrated by games like 'Prisoners' Dilemma' where individuals find it rational to act in a manner that collectively produces a Pareto inoptimal situation. The fact of interdependence in public works programs is obvious. Construction of irrigation works, in particular, and, to a large extent, levelling of land and digging of field channels are prime examples of interdependence in land development. There are also economies of scale in these very activities, due essentially to significant indivisibilities of the scale at which they can be constructed. And this minimum scale in general will be too large for any particular individual peasant."

"The most outstanding problem in India today is one of raising the absorptive capacity of millions and millions of small farmers whose paltry holdings are fragmented into small, isolated bits here and there. It is these small farmers who are unable to take advantage of the recent seed-fertilizer-credit revolution, which has already slowed down in its pace and is threatening to get stuck on the periphery... Setting up of separate agencies for tackling each of the many problems that small farmers face—the recent move towards a Small Farmers Agency may be taken as one example—is likely to make little dent on the total problem. ... A make-work program of rural works will leave little lasting effects. In order to be effective, the rural works program must be integrated into a comprehensive view of rural resource development."

Minhas, op cit.

\textsuperscript{13} "...... the equilibrium theory must be discarded not because it is a 'bourgeois' theory, as a matter of fact, it is not 'bourgeois' but rather politically indifferent. It should be discarded because—owing to the weaknesses of its basic assumptions, concepts and question formulation—it is useless as a real-science theory ..... The conceptual framework of the GE school and its formulation of questions has an extremely conservative effect on economics. Although two parties might have different points of view, if both of them wish to answer the same question within that framework they must take a common road. "What is the centre around which demand and supply make prices fluctuate?" If this is the question, the notions of 'demand' and 'supply' already attract the discussants into a mode of discussion within the same tradition." Janos Kornai: Anti-Equilibrium, North-Holland Publishing Company, 1971, pp. 359-361.

"Walras himself realized that it is not practical to reach the equilibrium position by trial and error, but he imagined that buyers and sellers could proceed by shouting out demand and offers, finding the equilibrium set of outputs and prices before production and trade takes place. His modern followers seem to have given up pretending that this is possible, and content themselves with finding the conditions necessary to ensure that at least one equilibrium position exists." Cf. Joan Robinson and John Eatwell: An Introduction to Modern Economics, McGraw-Hill Book Company, 1973, p. 37.
I shall not however elaborate on the theoretical and practical issues which the suggested procedure raises, since it is evident from Professor Minhas's paper that he had himself considered "another, fairly democratic and socially workable procedure for consolidation decisions." According to his own admission, he abandoned it only because it "would have been open to attack on canons of individualistic economic logic" (which he need not have feared) and because he thought that the procedure he opted for, involving an auctioning system, "may tickle the fancies of some connoisseurs of convergence and uniqueness" (a temptation which one so deeply concerned with practical pragmatic solutions would have done well to resist!). I shall therefore confine myself mainly to pointing out the other deficiencies of the market mechanism in agriculture.

For it is certainly not informational deficiencies or the presence of externalities that alone produce socially inoptimal results in agriculture. There are a number of other institutional factors. They tend to be so often ignored by economists—who apparently regard it as a problem falling more in the domain of sociologists and political scientists—that it seems necessary to explain at some length these other causes of inoptimal resource allocation and the conflicts of group interests that go with them.

Analytically the main reason for such misallocation is that ownership of land determines to a very considerable degree—widening in some cases and restricting in others—the range of choices effectively open to the different members of agrarian societies. The choices open in the land, labour, commodity and capital markets are not independent of each other but very closely interdependent.

I have tried to show elsewhere, in a paper on the ownership and distribution of land in India towards the middle 'fifties, some of the characteristics of the market for land at a time when tenancy was more openly prevalent than it is now.14 It will be seen from this analysis that even the quantum of land that could be leased in by rural households in general was apparently governed to a considerable extent by the size-group of ownership holdings to which they belonged. Consequently households belonging to size-groups with relatively high proportion of owned land accounted for an almost correspondingly high proportion of leased-in land, except in the case of those at the two extremeties of the size-distribution. Though households with relatively small operational holdings (less than 2½ acres in size) were more than half the number reporting leased-in land they had in all less than 7½ per cent of the total area leased in; on the other hand, households with relatively large operational holdings (more than 10 acres in size) were about one-sixth of the total number of households reporting leased-in area, but they accounted for more than 60 per cent of such area.

There were of course inter-zonal differences in land-leasing patterns, apparently due to soil-climatic conditions and the crops that could be grown making large operational holdings more viable in some zones and small ones in others. But, within the size-range to which most of the land was being leased out, the distribution was such that the same kind of correspondence between the proportion of area owned by a size-group and the proportion of area leased in by it was noticeable.

This implies that, if owned land is regarded as analogous to equity capital, and leased-in land as similar to debt, the operation of the land markets in India has exhibited features very like those found in capital markets in more developed countries—in particular, that the ability to borrow is governed in general by the amount of own-capital. It does not then come as a surprise that this feature has been in evidence also in the operation of the numerous rural capital markets in the country. Even the Rural Credit Survey conducted by the Reserve Bank of India in the early 'fifties had shown that, though numerically most of the indebted households belonged to categories which had either no land or relatively small holdings, their percentage share of the total indebtedness was not very far in excess of their share of the total land held by rural households; on the other hand, the top deciles of rural households which held the greater part of the land accounted also for a very large part of the total rural debt.

This feature of rural capital markets was even at that time more in evidence in regions where agriculture was more commercialized, and by this criterion more developed, than in regions of subsistence agriculture where production was largely for self-consumption within the small rural communities. The data available for the subsequent period suggest that, with the further commercialization of agriculture, the tendency of households with larger land holdings to acquire more credit, and thus account for a higher proportion of total debt, has become much stronger.

One other feature of the rural capital markets, which links them up with the commodity and labour markets (reflecting on the choices available to different categories of households in these markets), needs to be also mentioned. This is that it is generally in the case of small holdings, whose main demand for credit is for working capital for meeting the consumption requirements of households between successive harvests, that high rates of interest are charged and effectively realised. The high rates of interest in such cases reflect, as one would expect, the high premium placed by the borrowing households

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15. These findings were presented by me in a paper on "Saving, Capital Transfers and Rates of Interest" at the International Seminar on Banking and Development organized by the Reserve Bank of India, in February, 1970. This paper has not been published, but a summary statement showing the correspondence between the percentage share of the different deciles of cultivators in the total land held and in total outstanding debt in various regions of India can be found in another paper of mine on "Monetary Management and Nationalization of Banking in India" published in Economic Theory and Planning: Essays in Honour of A. K. Das Gupta, edited by Ashok Mitra, Oxford University Press, 1974.
on their immediate consumption requirements, their weak bargaining position which makes it impossible for them to secure the essential supplies on less onerous terms, and the exploitative power which a small number of households with control over these supplies are able to exercise for extracting surpluses in this form.

Nowhere has the effective realisation of high rates of interest in some segments of the rural capital market been so clear as in the case of grain loans given and repaid in kind. A quotation from the report on the Rural Credit Survey of 1951-52 provides almost conclusive evidence:

"On an all-India basis, 44 loans were borrowed per 100 cultivating families during the year covered by the Survey. The quantity of grains involved in these 44 loans worked out at 4,350 seers. Of these, 21 loans involving 2,090 seers or about 48 per cent of the total borrowings of grains were fully repaid during the year covered. The quantity repaid in relation to the fully repaid loans was larger by 30 per cent than the quantity borrowed. The remaining 23 loans in relation to which 2,260 seers were borrowed, were outstanding at the end of March 1952... About 70 per cent of the quantity outstanding in relation to loans borrowed during the year was outstanding for nine months or less. A very small number of loans, 2.0 per 100 cultivating families, was outstanding for more than 12 months. It would appear that unless some extraordinary circumstances intervened, grain loans were generally repaid within the period of one year."  

According to the Survey, in all the regions of India taken together nearly one-half of the cultivating families took grain loans, almost all such loans were repaid within a year, but nevertheless the grain-rate of interest was as high as 30 per cent. Clearly this high rate of interest cannot be attributed, as is often done, to the risks attached to the loans.

This is of course not to deny that in some transactions the high rates of interest charged might reflect high risk premia and that the rates effectively realised, after allowing for losses of principal on account of defaults, might be much lower. But what needs to be recognized is that high risk premia are not necessarily the only (or even the main) explanation for high rates of interest in the rural sector.

It also needs to be recognized that, where the power to exploit the borrower through control over the commodity markets makes it possible to effectively realise high rates of interest on loans, they need not be always so undisguised as in the case of grain loans; for such high rates can be realised indirectly by the manipulation of the prices at which the commodities con-

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cerned are bought and sold. The report on the Rural Credit Survey had pointed out this too:

"The importance of borrowings free of interest in the total borrowings from traders and commission agents is a reflection of the manner in which the agency operates in the sphere of agricultural credit... They advance money to the growers at the time of cultivation free of interest but on condition that the entire produce should be sold to them immediately after harvest at rates lower than the prevailing market rates. Though apparently gratuitous, the loan is found to be really costlier than the money lenders' when the price concession is taken into account." 17

Nor is it only through the capital or the commodity markets that high returns can be secured on loans advanced. This can be done also through conditions stipulated for the supply of labour by the borrowers to the creditors, of which illustrations are available in plenty in studies on rural labour markets. Thus, when payment for labour is made by landowners in terms of a share of the crop grown, it becomes already difficult to distinguish clearly between land given to tenants on a share-leasing basis and labour hired in on wage contract; and, when further conditions are attached about the timing and other terms of supply of labour in return for loans advanced, the distinction drawn between the land market, the labour market, the commodity market, and the capital market becomes almost wholly theoretical and highly arbitrary.

This kind of organic inter-relationship between the different factor and product markets makes nonsense of economic analyses resting on the assumptions of competitive equilibrium. It is a reflection of the grip which western economic theory has over us that models based on such assumptions are still used not only for analysing the working of the land, labour and other markets in the rural sector of the Indian economy but for drawing policy prescriptions therefrom.

The main limitation of Professor Minhas's proposal is therefore that it does not take adequately into account the deep conflicts of group and class interests that are involved in any programme which effectively seeks to bring about a more rational utilization of land and labour in the rural sector for solving the problems of mass poverty and unemployment. A scheme which relies heavily on market processes for this purpose, as his does (particularly for reallotment after consolidation of the developed agricultural land), cannot but be heavily loaded in favour of those who have commanding positions in

the markets concerned; it will therefore either be resisted or lead to configurations and results very different from those intended. What can be expected is already evident from the record of land consolidation in the States where progress has been achieved. "A major weakness of the programme," says the draft report on the Fifth Five-Year Plan, "was that consolidation was done without taking effective steps to ensure security of tenure to tenants, particularly share-croppers. As a result consolidation of holdings has often led to the large-scale ejection of insecure tenants."\(^{18}\)

Another question concerning land redistribution on which I have a different judgment relates to the reservations expressed (not only by Professor Minhas but by others like Professor Dandekar) on the desirability of creating or permitting the continuance of holdings below what is considered to be the minimum economically-viable size. The case for setting such floors to the size of holdings along with the imposition of ceilings is of course self-evident. Indeed there would be nothing to be said against it if it were feasible without leaving a high proportion of the rural population totally landless, acutely under-employed, and living at semi-starvation levels. But, since it has the latter implication in the Indian context, and even a toe-hold on land means a great deal to those who are seriously handicapped because they have none, it seems to me that one needs to be more circumspect about taking up a rigid position on this question.

Let me illustrate one of the additional reasons for such circumspection. From the hypothetical exercises which Professors Dandekar and Rath have presented to bring out the untenability of a redistribution programme that would make available land to every rural household, it is evident that, even assuming the feasibility of imposing a ceiling of 15 acres in Andhra Pradesh, the minimum size of the holding that can be offered to all would be only around 2\(\frac{1}{2}\) acres; and, if the Telengana region is dealt with separately (as it has less fertile land and lower population density), the feasible floor might be as low as 1 to 1\(\frac{1}{4}\) acres in the residual region of the State.\(^{19}\) Now the question it poses is whether a family holding of this size in the more fertile areas of Andhra Pradesh is too small to be economically viable and, if so, precisely in what sense it is so.

It is doubtful whether this question has been carefully examined, particularly with reference to the implications in terms of levels of employment and consumption under alternative patterns of land distribution. A recent study relating to the West Godavari district of Andhra Pradesh raises in fact some doubt as to whether a holding of about 1 acre in size in a fertile region of this

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\(^{19}\) V. M. Dandekar and Nilakantha Rath: Poverty in India, Indian School of Political Economy, Poona, 1971, pp. 80-81.
district can be dismissed as something that would serve no purpose. According to this study, agricultural labour households which have more than 0.4 hectare of land to cultivate in the deltaic region do not generally find it necessary to enter the rural market. The precise arithmetic in each region is not so important (though it needs to be gone into more thoroughly) as the more general issue it raises—namely, whether holdings of even fairly small size do not provide some kind of insurance to families who are otherwise wholly dependent on finding adequate wage employment in the labour market and who form really the hard core of rural poverty and distress.

When one also takes into account the possibilities that might be open for effectively utilizing small holdings for vegetable gardening, animal husbandry, and processing of agricultural products in general, and the support that could be given to them if they organize themselves as co-operatives, one cannot help wondering whether we have as yet adequate basis for ruling them out as necessarily unviable economically. The situation may of course vary from case to case. It is possible that, in some regions, redistribution beyond a point would create or perpetuate holdings that are in fact totally unviable and little is gained. But this need not always be the case. At any rate, it does seem to be a subject that deserves much closer examination than it has received so far.

A pre-condition for an approach of this kind to produce any significant results is of course that the unit for planning the development of rural resources should be neither so large that the problems of organizing such development become unmanagable nor so small that interdependences of the kind Professor Minhas referred to, and still others that would become obvious if one planned in terms of viable agro-industrial complexes, cannot be utilized effectively. The higher costs of fuel, the resulting increase in transport costs, the almost intolerable pressures caused by urbanisation, and the stimulus they have given to the search for technologies which can utilize local resources (including those hitherto regarded as wastes) for meeting local needs, are all factors favourable to the adoption of such an approach.

On the other hand, the institutional impediments in the way are still so powerful that one has to be a very considerable optimist to believe that, without an almost revolutionary change in the balance of social and economic forces, any considerable progress can be made in this direction except perhaps

20. "The deltas of West Godavari are marked by high productivity of land and even a holding of a hectare yields values adequate at subsistence levels of consumption. Therefore, normally those who possess lands exceeding a hectare are not drawn into the labour market. The maximum size of land of households coming under the category of labour households is below 1.25 hectares, the average 0.41 hectares and two-thirds of them possess less than 0.40 hectares. The average of this group is only 0.28 hectares. Those who possess more than 0.40 hectares are either pure tenants or owner-cum-tenants. Thus one possible inference could be drawn from the data. Those who own more than 0.40 hectares generally do not enter the labour market." Cf. G. Parthasarathy and G. Dasaradha Rama Rao: Employment and Unemployment of Rural Labour and the Crash Programme (A Study of West Godavari District), Andhra University Press, Waltair, March, 1974, p. 85.
by way of isolated demonstrations of what can be done under favourable circumstances. Viewed in this wider perspective, one needs to reflect over the question whether the case for redistribution of land, in a society in which the whole apparatus of exploitation is based on ownership of land, can be judged merely in terms of "economic viability" however defined; mobilization of social and political forces on the basis of radically-conceived programmes of land redistribution is perhaps a necessary condition for the transformation of such societies, whether or not such programmes satisfy the requirements of economic viability.