Agricultural Development And Social Change

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TRIBUTE

I am grateful to the University of Madras for having paid me the honour of inviting me to deliver a course of lectures under the Sir William Meyer lectureship for 1983/84. Sir William started his service career in 1881 in Madras, where his ability and industry raised him, within a decade and half, to the high post of Deputy Secretary, Finance, government of India. Later he became the Finance Member of the government of India. As Finance Member during the war years, (1914-1918), he was noted for his parsimaonry and economy, which incurred the wrath of the Royal Commission which commented that he did not "recognise the indisputable fact that war means extra expenditure." It was in the transition to peace after 1918 that his outstanding qualities in the fiscal field were able to keep under control the dislocation caused by the war through fluctuating exchange rates, deficiency of currency, loss of confidence, diminished trade and increased expenditure. His fiscal reforms seem to be of a quality that have characterised this year's (1985-86's) fiscal policy reform — but in a somewhat opposite direction. While the current year's fiscal policy has made income tax less progressive, Sir William introduced the first progressive scales in the Indian income tax system : and while this year's policy is dismantling some of our protective customs tariff to promote competition, Sir William raised customs tariff, in accordance with Indian desires, so as to give some preference to textiles and iron industries. To Sir William also goes the credit having coined the term 'Dyarchy' with regard to the method of administration introduced by the 1919 Government of India Act. Further Sir William contributed to India's international standing and status. He headed the Indian delegation to the first and second assemblies of the League of Nations (1920-21), where he became the financial authority that controlled the estimates and expenditures

of the League. He also represented India's case at meetings of the International Labour Organisation so ably that India was elected to its Governing Body, which it has retained in all successive elections over the past 65 years. It is as a small recognition of this many sided financial and economic personality, who established this lectureship endownment to promote the study of history and economics in Madras University that I have choosen as theme of my 3 lectures, Agricultural Development in India and Social Change. In the first two lectures, I survey agriculture's contribution to our national Plan objectives and in the third lectures concentrate on some specific social transformations brought about by agriculture in India.

1. *The Place of Agriculture*

1.1 Agriculture has been and is India's major industry. In terms of geographical area, a little less than 50 per cent of the land in the country is under agriculture (of the reported area of 306 million hectares, the net sown area is 142 million hectares.) In terms of the country's national income, agriculture continues to account for over 40 per cent of the real net national product. In terms of employment, about three fourths of the country's population depend directly or indirectly for their living on agriculture. In terms of foodgrains production, there has been a steady increase from 55 million tonnes in 1950-51, the start of the First Five Year Plan, to 150 million tonnes in 1984-85, the terminal year of the Sixth Five Year Plan. In terms of agriculture's linkage with manufacturing industry, the surpluses thrown up by agriculture in regard to food, raw materials and labour were the necessary precondition of industrial development and advance. Equally the slow growth of agricultural income has limited industrial growth by limiting the market for the products of manufacturing industry. Monthly rural per capita expenditure according to NSS reports have increased steadily from Rs. 20,13 in July 1956 - June 1958 to Rs. 53.01 in October 1973 to June 1974[1], which has involved a Lorenz ratio of consumer expenditure-distribution at current prices decending from 0.340 in July 1958 - June 1959 to 0.276 in October 1973 - June 1974.[2]

2. *Objectives*

2.1 The objectives of agricultural development in India have to be seen in relation to the objectives of national development as set forth in the six Plans which have a recurring theme and can therefore be summarised under seven broad heads. These objectives were and are: (a) to increase national income at a specified rate which would ensure an increase in the per capita income over time: (the

First Five Year Plan envisaged a doubling of per capita income over 10 years and the Third Plan quantified the annual growth rate at 5 per cent): (b) to reduce income inequality among classes and regions : (this led to the fiscal policy whereby the marginal rate of income taxation by the Fourth Plan was 97.5 per cent, as well as to high rates of wealth and corporate taxes) : (c) to reduce inequality in the private ownership of the means of production including land so as to prevent concentration of wealth and assets "to the detriment of the common good". (In the First Plan the 1948 Industrial Policy statement reserving 4 industries for the state is referred to, in the Second Plan the industrial policy resolution of 1956 referring to the aim of the socialistic pattern of society is set forth, in the Fourth Plan MRTP legislation is proposed, and in all plans the regulation of the status of the tenant with a view to giving him ownership and that of the share cropper to fix for him a fair rent and later of the wage earner to assure him minimum wages, and a ceiling on the maximum land to be held by landholders are expressions of this concern) : (d) to increase employment (from the Second Plan the development of small scale industries which are employment intensive and for which 47 items of production were reserved, now numbering over 837 along with the intensification of agriculture, as from the First Plan agriculture and employment were seen to be complementary, in the sense that only agriculture could absorb the large annual entry into the labour force, while from the Fifth Plan a number of employment generating programmes known today as NREP, RLEGP, TRYSEM, self employment for the educated unemployed etc. were launched) : (e) to contribute to marketed, and marketable surplus of food and agricultural raw materials both to feed the non agricultural population and develop manufacturing at low cost (the discussion of marketed and marketable surplus became a major issue towards end of the Fourth and the early years of the Fifth Plan during which there were experiments in nationalising the marketable surplus : the backward and forward linkages between

the jute farmer, cotton farmer, oil seeds cultivators and the corresponding industry have been the subject of strain as well as the government intervention through procurement, support prices and import/export throughout the plan period) : (f) to alleviate and reduce poverty : (at the end of Second Plan the Planning Commission set up an expert group who devised a means of estimating the number of the poor in the country and that number has remained at 50 to 60 per cent of the population. The Sixth Plan set forth a target of reducing the poverty percentage from 48 to 38 and it is now claimed that this has been achieved both through the general development of agriculture and manufacturing industry and the special beneficiary oriented programmes referred to earlier plus IRDP) : and (g) to increase self reliance in the national economy : (this was begun to be spelt out from the Second Plan when self reliance in capital goods and heavy industry was aimed at, in foodgrains from the Fourth Plan and in all facetes from the fifth Plan.)

3. *Achievements*

3.1 We may now turn to enquire how far these 7 objectives have been realised as far as agriculture is concerned, or rather how has Agriculture contributed to the seven objectives.

3.2 *Contribution to growth* The first objective is the increase in national income which is usually measured in the rate of increase of NNP, to which the rate of growth of agriculture as a contributor should be correlated. Here one should be cautious because different rates can be derived by taking different dates. In one study the NNP Growth rate is 3.75 per cent from 1952-53 to 1959-60, 3.75 from 1960-61 to 1967-68, 3.76 per cent from 1968-69 to 1975-76 and 4.01 per cent from 1976-77 to 1983-84.[3] Another study using the same data shows the compound rates of growth to be 3.31 per cent for the period 1961-62 to 1973-74 and 4.01 per cent during 1973-74 to 1983-94.[4] We

may, however, take as the growth over the Plan period, 1950-51 to 1984-85, the trend rate of 3.6 per cent.[4] The same ambiguities appear in regard to the contribution of agriculture to the overall trend rate. One study on the unreliability of average annual agricultural growth rate points out that, as against the official claim that during the VI plan 1980-81 to 1984-85 the annual average of agricultural growth was 5 per cent, by shifting the five years back by one year from 1978-79 to 1982-83 the annual average become 1.9 per cent.[6] Here too the trend rate of agriculture growth during the 6 plans is 2.7 per cent[7], which is the contribution agriculture made to overall growth. These trend rates of 3.6 per cent for overall growth and 2.7 per cent for agricultural growth cover two issues. First whether or not this is true of overall economic growth (on the contrary the two studies referred to above show that the overall growth rate accelerated in the seventies compared to the fifties and sixties), in the case of agriculture, there is a noticeable deceleration over time. The fifties registered a growth rate of 3.3 per cent due mainly to the expansion in cropped area, which expansion was exhausted by the end of the fifties, so that during the sixties and seventies which was the intensive phase of cultivation, the growth rate slackened to 2.3 to 2.4 per cent per annum. This means all future agricultural growth will have to come not from increase in cropped area (which no longer exist), but from per hectare or per man or per capita unit yield (that is from increased productivity). The second issue is that the trend rates for the economy and agriculture must be related to the population growth rate which has been 2 to 2.2 per cent during this period. This means that the overall per capita growth was been only 1.4 to 1.6 per cent per annum. For the rural population which was growing at 2 to 2.1 per cent[8], per capita agricultural production in rural areas has been even less at 0.6 to 0.7 per cent, which has lessons for both the population growth rate and productivity of agriculture.

3.1.1 Productivity of agriculture as measured by the value of per hectare yield at constant prices may result from a change in the cropping pattern or an increase in area in one state as against a fall in area in another state or a change in crop yields. First the facts are that during the fifties the first two cause — cropping pattern changes and increased cultivated area — , operated and resulted in a trend rate of productivity growth of 1.58 in the fifties. In the sixties and seventies, it was the third factor, increased yield which accounted for the major part of the productivity increases which rose to 2 per cent.[9] There is a view that there are different factors at work on these two groups of cause — cropping pattern and increase in area which are held to be influenced by price changes, while yield rates are held to be influenced by technological factors such as HYV seeds, fertilisers and pesticides, irrigation and rural electrification. This distinction is, however, not supported by theoretical or empirical studies. Price changes decide changes in the share of area under non foodgrains but even in this area, foodgrains area is determined by technological factors. For the Seventh Plan, where productivity growth is a major all pervasive thrust, in agriculture, such increase in productivity will be a function of technological progress.

3.2 *Reducing Inequalities* Turning to a review of how far the second objective of agriculture's contribution to reducing inter spatial and inter class income inequality has been realised, the record for the three and a half decades shows; that while, till the mid sixties, there was a fairly even spread of agricultural growth and of income accruals throughout the country, including the dry areas; after the mid sixties growth was concentrated in the irrigated and assured rainfall areas, which increased inter spatial disparities and widened the income disparities both between these areas and the rest of the country, and within the areas between the various classes. The inter spatial diversities as between the 2 period are brought in the following table : I. The table not only shows the sharply differing

growth rates in the states as between the two periods, (before and after the mid sixties), but also brings out more sharply the difference between top and bottom districts in the second period when AP, Assam, Punjab, UP and Tamil Nadu covering 14 per of the gross cropped area and 12 per cent of districts recorded above 5 per cent annual growth, while 25 per cent of districts covering 27 per cent of the country's gross cropped area record a —3 per cent annual decline in growth. In relation to these districts, agricultural incomes of the top districts was growing at more than 8 per cent per annum,which was a function of the concentration of the inputs in these districts.[10]

3.2.1 Studies[11] show that in the period after mid sixties the landowners' income per acre increased between 50 to 100 per cent, while that of landless labour increased between 25 to 35 per cent. The share of labour in the increased output in this period increased by 5 to 15 per cent, while landowners were able to get 85 to 95 per cent of the benefit. And among landowners, despite at the micro level small landowners earning increased incomes from the new technology, at the macro level the income disparity as between large and small landowners measured by the concentration ratio has increased. There will be an occasion later to examine this factor along with the Reserve Bank's rural assets surveys which show that while during this period the incomes to larger owners increased, there was at the same time a shift of land to medium and small owners. The general conclusion is that agricultural growth and development since the mid sixties has not contributed to reducing income inequality, spatially or between classes.

3.3 *Reduced inequality in land ownership* The objective to which agriculture has contributed is the third one, namely, reduction in the inequality of private ownership of land On this, there will be later a detailed analysis of the land reform movement in the country and its effect on reducing inequalities in private ownership, Here it may be, in general, noted that while the share of the cultivated areas increased

TABLE I

Growth rates of Agricultural output by states and districts

States	1952-53 to 1964-65	Foodgrains 1964-65 to 1972-73	Districts 1951-54 to 1958-61				1962-65 to 1970-73			
			7.5% & above	5% to 7.5%	2.5% to 5%	Below 2.5%	Greater than 4.5%	1.5% to 4.5%	0% to 1.5%	Less than 0%
Andhra Pradesh	3.21	– 0.987	4	3	4	8	0	2	7	12
Assam	0.76	2.432	0	0	0	8	1	5	3	0
Bihar	3.05	2.005	3	5	4	4	0	5	3	9
Gujarat	2.06	5.727	9	5	1	2	4	5	5	4
Himachal Pradesh	3.63	1.153								
Karnataka	3.31	3.962	4	5	0	7	4	4	5	6
Kerala	3.68	2.949	0	2	0	0	0	8	3	0
Madhya Pradesh	2.32	1.484	18	6	9	7	0	24	12	7
Maharashtra	2.20	0.754	7	6	2	10	0	0	3	23
Orissa	3.39	0.914	3	2	5	3	0		3	10
Punjab	3.66	9.505	4	3	5	5	16	2	0	0
Rajasthan	2.42	4.442	13	3	5	2	12	8	4	2
Tamil Nadu	4.17	3.346	1	3	7	0	2	5	5	0
Uttar Pradesh	0.85	2.434	1	5	15	27	9	28	11	1
West Bengal	1.14	3.847	0	1	2	12	0	13	1	1

Source : V. M. Dandya : A case study of India (for state) Minister & Vaidyanathan : Growth of crop output in India

for small and medium owners, it decreased for large owners, though there is still a wide gap separating large land holders from the small ones. In this connection, the contrast between agriculture and manufacturing industry in regard to large scale and small scale ownership and production is one of the frequently debated issues as part of theoretical and policy debates on socialism. One view is that while in manufactures, the small unit is absorbed by the medium, the medium by the large and the large by the very large, what we call today the transnational, there is no such movement in agriculture for the small farm to be taken over by the large because "there are factors within the essential nature of agriculture itself, of its implements of labour, its process of labour and its product, which under otherwise identical circumstances give the small proprietor a chance of competing with the large".[12] The otherview is that the large agricultural enterprise had in the past the advantage of cheap forced labour, and when this cheap forced labour dried up, the large estate became unprofitable and while large ownership remained, it was split up and turned into small tenant farms. With the advent of capitalist agricultural production, the provision of the maximum product with the minimum labour made for its technical superiority over the small farm. Further large scale farming enables it to speed up the production process, introduce innovations and increase its productivity and so gain a decisive advantage over small farms which are pushed to the wall and bought up by large fames. But in the end the debate related to the question of socialising land — whether it be under large or small ownership, with the comment that it would be height of absurity to socialise all other means of production and leave land under private ownership. AndMarx's conclusion reads like a description of present day agriculture on this matter: "in the sphere agriculture, large scale industry has a more revolutionary effect than elsewhere, for the reason that it annihilates the bulwork of the old society, the 'peasant' and substitutes for him the wage labourers. Thus the need for social transformation and the antagonism

of the classes, reaches the same level in the countryside as it has attained in the town. A conscious technological application of science replaces the previous highly irrational and slothfully traditional way of working. The capitalist mode of production completes the disintegration of the primitive familial union which bound agriculture and manufacturs together when they were both at an undeveloped and child like stage. But at the same time it creates the material conditions for a new and higher synthesis, a union of agriculture and industry on the basis of the forms that have developed during the period of their antagonistic solation".[13]

3.4 *Employment generation* On the fourth objective of increasing employment, agricultural development has contributed employment through expansion in the cultivated area, through increased cropping intensity, through change in the cropping pattern favouring labour intensive crops, and through changes in land ownership in favour of labour. In sum, all these factors have operated in such a way that 72-75 per cent of the labour force has been employed in agriculture. While, till the 70s the labour force grew at about the same rate as the population between 2and 2.2 per cent, after the early 70s labour posce has increased at a rate of 2.4 per cent, which is higher than the population growth rate. When this is taken along with the fact that the gross cropped area was growing at 1.2 per cent per annum till the early seventies, as noted earlier, the labour force in agriculture grew between 0.8 and 1.0 per cent till then, and from 1 to 1.3 per cent later. The pressure on land that this represents gave rise to the various and varying estimates of surplus labour in agriculture, as estimated by the unemployed and more generally the under employed. The farm management surveys of the Agro Economic Research Centre of of this University and other universities undertook the measurment of the surplus labour, using varying norms, which resulted in divergent conclusions, namely that surplus labour was 3 per cent to 27 per cent of the agricultural work force. In view of these uncertainties, the Sixth Plan made

two changes. First it uses the concept of employment in standard person years, which it estimates in standard person year terms. Any person working 8 hours a day for 273 days of the year is employed on a standard person year basis. It estimates that agricultural employment will increase by 4.7 per cent per annum from 72 million standard person years to 84 million standard person years during the Plan. The second approach was to use the concepts arising from the committee of experts on unemployment (Dantwala Committee), and express the labour force and unemployment estimates under usual status, weekly status. It noted that using the daily and weekly status employment rates, there was a deterioration, based on NSS 27th and 32nd rounds from 8.21 per cent in 1972-73 to 7.70 per cent in 1977-78 in daily status and from 3.89 per cent to 3.74 per cent in weekly status.[14]

3.4.1 Of the 4 factors which comprise agriculture's contribution to increase in employment, the first factor, expansion of area contributed its own rate of growth of 1.2 per cent per annum to employment generation. On the second factor, namely the use of the new technology leading to intensified cropping intensity empirical studies in Tamil Nadu, Andhra Pradesh, Punjab and other states show that it increased employment per hectare by 33 to 62 per cent. The third factor, involving changing the cropping pattern in favour of labour intensive crops such as cereals, and in particular rice, and even more cash crops like sugar, cane, cotton, plantation crops, has by definition made a sizeable contribution to increased employment from 22 to 24 yer cent in the two decades of the mid fifties to the mid seventies, plus the employment contribution from plantation crops, vegetables, orchards etc. The fourth factor, the change in land relationships made a contribution to employment by making tenancies more secure and by shifting land ownership to the landless, which will be discussed later. The total effect of all the 4 factors on employment can be expressed in the from of the elasticity of employment to outpul which is the ratio of percentage change in mandays

used to percentage change in output, which is estimated with a wide variance ranging from 0.3 to 0.75.[15] On the basis of the growth rate in agricultural output, the ratio of 0.3 is too low, and on the basis of the surplus labour problem referred to earlier, the 0.75 elasticity appears too high. If, instead, a ratio of .06 is accepted, then agriculture's employment generation overall is seen to be 1.4 to 1.8 per annum, which is supported more nearly by the details of the 4 factors discussed earlier.

3.5 *Food and raw materials surplus* A fifth objective of agricultural development is to produce a surplus of foodgrains for the non farming community, which is mainly the urban populace, as well as to produce the raw materials which manufacturing industry needs. The marketed foodgrains surplus grow at 2.9 per cent per annum till the mid sixties and after that with the introduction of the new technology increased by 73 per cent to an annual 5 per cent, giving a cumulative rate of 3.1 per cent over the three and half decades. The other sub objective of supplying the industrial raw materials at fairly stable prices has not had the same record. The All India Index of cash crops show both relative stagnation in output so that its related manufacture could not expand and had to face constant variations in supply. Thus oil seeds during the whole of the seventies increased by 2.6 per cent with -16.6 in 1975-76, +17 in 1983-84, leading to the imports of edible oils; fibres show no upward movement remaining at 98.5 in 1970-71 and 99.2 in 1983-84, with increase to 129 in 1978 and 1982-83 and declines to 115 in 1976-77 and 118 in 1980-81; and among plantation crops, coffee registered a -5.8 per cent growth in the seventies, lowering from 162 in 1970-71 to 97.4 in 1975-76, 143 in 1981-82 and 94.1 in 1983; and sugarcane recorded a growth of a mere 1.4 per cent, swinging from 99.3 in 1970-71 to 118 in 1980-81 and down to 113 in 1983-84.[16]

3.5.1 In regard to the foodgrain surpluses there are four issues that need attention. First unlike popular opinion

and some writings on the subject, the terms of trade, whether barter term of trade, which is the ratio of prices received by the farmer to prices paid by him, or foodgrains terms of trade which is the ratio of foodgrains prices received to prices of non foodgrain paid or income terms of trade which is the barter term of trade multiplied by agriculture's export to non agriculture, the terms favoured the farmer at the macro all India level. The table below shows that the barter terms of trade and the foodgrains terms of trade increased at an annual 1.43 per cent each and the income terms of trade rose by an annual 4.53 per cent.

TABLE II (1960-61 = 100)

Year	Barter terms of trade	Foodgrains terms of trade	Income terms of trade	Marketed surplus
1951-52	100.72	104.47	67.07	66.59
1952-53	99.13	116.84	72.41	78.05
1953-54	103.74	112.54	88.40	85.21
1954-55	97.02	91.84	85.99	88.63
1955-56	94.78	92.02	88 20	98.06
1956-57	102.46	109.20	100.67	98.25
1957-58	98.46	107.1	92.15	93.59
1958-59	101.66	113.43	97.95	96.35
1959-60	101.68	105.88	94.43	92.87
1960-61	100.00	100.00	100.00	100.00
1961-62	100.89	98.35	106.20	105.47
1962-63	99.09	99.69	106.17	107.15
1963-64	97.39	101.59	108.90	111.82
1964-65	108.66	118.80	124.67	114.73
1965-66	114.47	120.60	123.95	108.25
1966-67	123.07	131.81	129.04	104.85
1967-68	125.02	148.10	149.99	119.97

1968-69	116.27	126.91	143.62	123.52
1969-70	125.72	131.05	167.08	132.90
1970-71	127.32	125.85	178.88	140.50
1971-72	120.08	125.65	181.31	150.99
1972-73	118.90	128.20	173.81	146.18
1973-74	136.98	134.40	206.11	150.47
1974-75	133.92	146.78		
Compound rate				
1951-52 to 1974-75	1.43	1 43	4.53	3.11
Growth rate				
1991-52 to 1965-96	3.10			
1965-66 to 1973-74	5.00			

Source: Thamarajkshi: Intersectoral Terms of Trade

3.5.2 The table above raises a second issue as to the difference between marketed and marketable surplus and the farmers who are contributors to the surpluses. The marketed surplus as set forth in the table is the actual foodgrains sales in the market, which are gross produce sold as a proportion of total output, and which should include both the commercially marketed surplus as well as distress sales of foodgrains by the small and marginal farmers. Per contra, the marketable surplus is the gross production net of consumption, which is the surplus sold on the market and the net purchases of foodgrains by small and marginal farmers from the larger farmers. The table shows that the marketed surplus rose by an annual 3.10 per cent upto the mid sixties and 5 per cent for the post 1965-66 period. Studies show that the purchase of foodgrains by small and marginal farmers (in the size group below 5 acres) accounted in 1961 for 16 per cent of the marketable surplus, with the total marketable surplus being 37.4 per cent of the total foodgrains production as compared to the marketed surplus being 35.6 per cent of total foodgrain production in that year.[17] On the question of who contribute to the marketed

surplus and how much, small and marginal holdings (upto 5 acres) contributed 26 per cent of the marketed surplus in 1950-51, which fell to 16 per cent in 1960-61; medium holdings (5 to 10 acres) contributed 20 per cent in 1950-51 and 17 per cent in 1960-61; while the large holdings (10 acres and above) which contributed 50 per cent of the marketed surplus rose to over two thirds during this decade.[11] On the position of this contribution of the size classes during the seventies, micro studies ranging from those in Punjab and West Bengal to those in Andhra Pradesh and Tamil Nadu confirm the above trends — the contribution of the 1.5 acres holders being negative or nil; that of upto 5 acre holdings being 5.8 per cent; that of 5-10 acre holders being 20 per cent; and the 10± acre holders contributing the balance (72-75 per cent); macro studies on the contribution of these size classes to the marketed surplus during the seventies have yet to be undertaken. What emerges from this analysis of the data is that the major part of the marketed and marketable surplus is from the large landholders who were also the gainers from the favourable terms of trade referred to earlier, while the small farmers (and the landless labourers) are not only contributing to the surplus on a declining scale but are becoming net buyers of food.

3.5.3 A third issue is the effects of the growing marketed surplus (which may also be measured by the increase in state procurement of foodgrains from 0.04 million tonnes in 1951 to 18.72 million tonnes in 1984) and the improved terms of trade for the farmers, as analysed earlier, on the consumers of agricultural products. Looking at the constantly increasing procurement price of foodgrains and support prices for cash crops, it is clear that these — increasing surplus and improved trade terms — have been obtained at growing cost to non-agriculture. In particular the poor, spending about 70-80 per cent of their monthly expenditure on food, and agro industry expending about 20-30 per cent on agricultural raw materials in the case of

medium and large industrial units, and about 30-50 per cent in the case of small and tiny units, meant that the increased cost of foodgrains and raw materials fell heavily on the rural and urban poor, and particularly on the small and tiny units. In the case of foodgrains the state subsidised supply made available through the public distribution system, except in Kerala, does not cover the rural areas, so that the rural poor are the main bearers of these price and trade terms increases and improvements enjoyed by the large farmers. This may, in pats, account for the somewhat spectacular rise in gross domestic savings which were a low 5 per cent of the gross national product in 1950-51, jumped to 12 per cent in 1963-64, to 16 per cent in 1970-71 and have been hovering around 22-23 per cent since 1976-77.[19]

3.5.4 Fourth, the impact of the food surpluses and cash crop supply on the market needs a brief examination. In the case of food surpluses, the open market deals with two third to three fourths of the surpluses, while the public distribution system, which really became effective during the aftermath of the partition, and as the means of distributing PL 480 food imports, hardly dealt with one fourth of surplus and has been operating mainly in the urban areas, as noted earlier. The inter relations between the open market prices and the public distribution system was not close from one point of view, as the open market was the locus for trade in pulses and oil seeds and agricultural raw materials for manufacturers, in all of which the public distribution system had hardly a role. On the other hand, when prices of foodgrains rose sharply as they did in 1972-73, 1973-74 and 1974-75 and again 1979-80 which were also the years of low cereals output, public procurement was intensified, the offtake from the public distribution system increased, and the public distribution system was supported by periodic zonal restrictions on the free movement of foodgrains. This means unlike the demand in these 3 years in which there was strong pressure for the nationalisation of the wholesale trade for cereals because the food

shortages and their high prices in urban and rural areas were attributed to the trade, both the public distribution system and its accompanying policies as well as the working of the free foodgrains market were responsible for the ups and downs in food policies in these years. Studies[20] of the working of the systems, the open market with no zonal restrictions against the public distribution system supported by such restrictions show that there were advantages and limitations in both. When the system of unrestrained open market obtained, there was relative inter state price uniformity but wide divergences between the states in the per capita availability of foodgrains. In the years where the public distribution system was a major distributional agency with zonal restrictions, there were wide inter state price variations in foodgrains, but sharply reduced variability in per capita cereals availability between the states. On the whole in the interests of the rural and urban poor, the policy of ensuring price uniformity is preferable to reduced per capita variability through the public distribution system, which benefits only the urban non poor, as noted earlier.

3.6 *Alleviation of Poverty* Agriculture can contribute to the relief of poverty first through raising the nutritional level of the population which requires something like a calorie intake of 2100 to 2400 for adult person per day. During the three and half decades of planning the per capita availability of foodgrains has increased, though in an unbalanced and qualitatively questionable manner. What has increased is cereals, (though even here the lack of purchasing power of the mass of the urban and rural poor has led to an embarassing bulid up of buffer stocks of near 30 million tonnes and concerted plans to export them at a time when there are pockets of nutritional destitution.) The imbalance of foodgrains supply is the per capita decline in pulses (form 65 grams per capita a day in 1951-52 to 48 grams in 1970-71 and 40 grams in 1980-81), which is a serious loss of protein in the diet, and a similar decline in oil seeds. The quality deterioration refers to the absence

of adequate milk and animal protein in the diet of the rural poor (Operation Flood I and II have been successful means of transferring milk from the rural producing farms to the urban consuming centres). Has agricultural development reduced poverty? This is difficult to answer definitively, because of the varying estimates of the poor that different studies throw up. The rural poor were estimated at 38 to 40 per cent of the rural population by Bardhan, Dandekar and Rath, 59 per cent by Minhas, 70 per cent by Bhatty, 67 per cent by Ahluwalia, 20 per cent by Sukhatme and so on. The government states that its analysis of rural poverty based on its study of NSS Rounds 28th, 32nd and 36th shows that rural poverty has declined from 54.09 per cent of the rural population in 1972-73 to 50.82 in 1977-78 and to 40.4 per cent in 1983-84.[21] The picture is confused and till the 36th round results of the NSS are released to us and there is general agreement on what is the monthly expenditure below which the poverty issue arises, it is not possible to answer the question whether, and if so by how much has agriculture reduced poverty. In this connection, poverty is not a one dimensional, unilinear phenomenon, it comprises the poor, the destitute and the utter destitutes, for each of whom separates agricultural strategies will need to be formulated.

3.6.1 There is also a more powerful long term instrument that agriculture invokes in combatting poverty. That instrument is agrarian relations which operate within a given socio economic frame-work, and in our case they are relations which are changed by decision of the government and the people, in order to attain the goal of removal of poverty and inequality. This is the whole question of land reforms, which are both a means of realising the goals of agricultural development as well as a consequence of the changes of the technological forces which cause agricultural development, and which are to be treated in some detail in the third lecture, to which further consideration of this basic issue is deferred.

3.7.1 *Self Reliance* The seventh objective of agricultural development is its contribution to self reliance which is defined as (a) reduction in the dependence on foreign aid, (b) diversification of domestic production, (c) a consequential reduction in imports for certain commodities, and (d) the promotion of exports to enable us to pay for imports from our own resources.[88] In regard to agriculture's contribution to achieving self reliance, the last 3 elements might be taken up, to see how for the export of agricultural commodities and the substitution of domestic production for imports of certain commodities have been attained also how the domestic production and export of agro based manufactured products have developed; against all these must be set the imports of foodgrains and other agaicultural goods like cotton and sugar, and the agricultural inputs of fertilisers, machinery and fuel. India's agriculture and allied products exports have increased steadily from Rs. 487.01 crores in 1970-71 to Rs. 2,221.13 crores in 1981-82 and its agro based manufacturing exports have increased from Rs. 450 crores to Rs. 1,433 crores in that period, while imports of agricultural products including foodgrains any agro based manufactures and agricultural inputs, notably fertilisers. have increased from Rs. 450 crores to Rs. 433.20 crores between 1970-71 and 1983-84. Thus the exports of agricultural products, agro based manufactures, and agricultural inputs which were double the imports in these goods in 1970-71 more than trebled by 1982-83. As noted earlier, the very large public buffer stocks in foodgrains which began building up from 1974, after meeting the growing urban demand for foodgrains from the marketed surplus, enabled the increased feeding of the public distribution system, a growing food for work programme, as well as some exports in recent years. With the growing industrialisation of the economy, the share of agricultural commodity exports which was 41 per cent in 1950-51 declined to 38 per cent in 1973-74 and 36 per eent in 1982-83. The corresponding share in agricultural imports decline from 28 per cent to 26 per cent in that period. The direction

in which agriculture is moving in contributing to self reliance is satisfactory, though its quantum could be increased and quality further improved.

4. *Other facets of Social Change* Some other social facets associated with agricultural development might now be examined, concentrating on (a) the position of different class of peasants, (b) land reforms, (c) the Slater villages and (d) landless labour and wages.

4.1 *Peasant structure* What has been the effect of agricultural development in India on the structure of peasantry and land holding? Has it led to the immiserisation of the farmer, to the pauperisation of the peasantry, or has it led to increased land holding by the small and marginal farmer? In Indian agriculture, there are four kinds of relations of the cultivator to land - the owner cultivator who both owns and cultivates his land, the lease holder who owns little or no land but cultivates it on lease and in return pays a rent to the landowner, the share cropper who owns little or no land but cultivates it on an agreement about the mutual share of costs and produce between them, and the landless labourer who works on the land of others for a wage. What has been the direction of change in these four groups. Using data from 8th & 17th NSS rounds, the All India agricultural census and RBI's All India Rural Debt and Investment Surveys, it is seen that in terms of numbers, there has been a percentage decline in landless households from 11.68 per cent in 1961-62 to 9.34 per cent in 1971-72: there is an increase in marginal farmers owning upto 2.5 acres of land from 48.35 per cent of rural households in 1961-62 to 53.32 per cent in 1971-72: there is an increase in small farmers who own less than 5 acres from 15.15 per cent in 1961-62 to 15.33 per cent in 1971-72: (both the marginal and small farmers owned 20.67 per cent of land in 1971-72): medium farmers (owning 5 to 10 acres) increased from 13.86 per cent in 1961-62 to 18.72 per cent in 1971-72 owning 25.85 per cent of land: and large farmers increased from 10.92 per cent in 1961-62 to 11.52 per cent

owning 53.46 per cent of land. A more recent NSS round analysis quoted by the Sixth Plan states that small and marginal farmers who constitute over 70 per cent of the land holders operate less than 24 per cent of the cultivated area, while the large landowners owning each over 10 hectares constitute only 3 per cent of cultivators but own over 26 per cent of land. Among the above marginal, small and medium farmers are the lease holders and share croppers, the tenants, who according to the 17th round of NSS And the All India Report on Agriculture Census are on the decline from 12.17 per cent of the rural households in 1961-62 to 8.40 per cent in 1971-72. The tenants include those operating leased in land but also some of whom have some owned land, the 'pure' tenant households being 4 per cent of rural households. Further on status of landless labour, reference to the Rural Labour Enquiry shows that between 1964-65 and 1974-75 the number of rural labour households which derived more than 50 per cent of their income from wage paid manual labour increased from 25 per cent to 30 per cent of total rural households. In terms of days for which employment was available for rural labourers, there was a decline by 10 per cent for men, 7.5 per cent for women and 5 per cent for children.[23]

4.1.1 The general impression of the agrarian structural relations outlined above that there was a percentage reduction of landless labourers and tenancies needs some further examination. First some part of the reported decline in the percentage of tenants is questioned. Some studies[24] refer to the under reporting of tenancies as being the reason for the decline in tenants. The official RBI study in many districts on this reports: "either all or the majority of tenants without written leases indicated that they could not displease the land owners or that the landowners were not willing to be party to written leases". From the point of view of area, also, tenancies are reported to have declined from 20.34 per cent of the total cultivated area in 1953-54 to 10.57 per cent in 1971-72. That a great part

of this is spurious is seen in the fact that most of the decline had already taken place by 1961-62 and where tenancy had been legally abolished, it continued to exist under various informal arrangements, which were further strengthened by technological and demographic forces to make tenancy legislation infructuous. Thus while the Agricultural Census 1970-71 based on land records established 4.8 per cent as tenancy areas in that year, the National Sample Survey estimated the tenancy areas as 10.57 per cent in 1971–72, which suggests that the minimum tenancy concealment is of the order of 6 per cent. The greatest concealments were in the states of Assam, Punjab, Bihar, Haryana, UP, Rajasthan, Tamil Nadu and Orissa, possibly because in these states tenancy are well above the national average of 13 per cent of the cultivated area and within these states, tenancies are concealed in both backward and forward districts, with the latter being at the top of the concealment game. Further tenants in the advanced districts and areas in Punjab, Haryana, AP and Tamil Nadu, who are also termed capitalist tenants, that is to say tenants cultivating large holdings, were able to rent land from the small tenants paying them fixed cash rents and making, in the process, large profits.

4.1.2 Another issue relating the declining trend in the percentage of landless labourers and tenancy in so far as it is genuine is the question how far this was due to the technological changes in agricultural production and how far it was due to land reform legislation which will be considered later. Several studies on the effect of irrigation on both decrease in tenancies and landless labour and the class size of farms bring out the advantage of the large farms; in the Lower Bhavani project in Coimbatore, for example, it is seen that water availability to a farmer is a function of farm size, access to well water, distance from the outlet and the number of intervening farmers: there was over irrigation in paddy and groundnut fields by farmers with advantageous locations and under irrigation by

farmers disadvantageously located. Wells developed by large farms are a vital instrument for coping with uncertainties and inadequacies of canal supplies leading to higher cropping intensity. This is also true of fertiliser use and mechanisation of farm lands. A comparative study on the impact of irrigation, inKarnataka, Tamil Nadu and Andhra Pradesh[25] concludes that irrigation had little effect on marginal lands, while it increased production in large holdings. A broader study[26] concludes that when irrigation facility is measured in terms of net irrigated area the output per year averaged 5 to 6 tonnes of foodgrains equivalents in the case of ground water (dug wells equipped with electric pumps), against 2 to 3 tonnes in the case of canal irrigation and 1.5 to 1.8 tonnes in the case of tank irrigation. Overtime, the productivity of ground water irrigated lands has risen faster than that of surface irrigated land because HYV technology is based in favour of farmers having their own means of irrigation, and because the composition of groundwater irrigation has changed for the better more than the composition of public surface irrigation. To this should be added fertiliser application which is determined by the quantity and duality of irrigation, as well as the farmer's own resource position, availability of farm credit at low interest rates and a farmer's access to institutions distributing credit, fertilisers seeds etc, all of which favour the larger farmer. The moral is that so long the factors determining the use of fertilisers and ground water irrigation are tilted against the small farmers, they cannot realise as much income benefits from irrigation and fertilisers as the large farmers do and the only way to eliminate this access related tilt is to work towards an equalisation of land holdings | which both redistribute land holdings and tilt minor irrigation allocations in favour of the small farmer. On mechanisation, the agricultural census reports that between 1951 and 1981 the number of tractors increased from 1 lakh to 6.65 lakhs at the rate of 14.7 per annum, the number of oil engines increased from 0.66 lakhs to 35 lakhs at the rate of 13.2 per cent per annum, the number of electrically operated irrigation pumpsets

increased from 0.21 lakhs to 26.1 lakhs at the rate of 26.1 per annum. The 1981 NCAER study on tractorisation shows that tractors are used by large farmers and are obtained on hire from them by small and marginal farmers.[27] Thus the general drift of this discussion is that the new agricultural technology of water, HYV seeds, fertilisers and pesticides and tractorisation has benefited those farmers who own and operate large holdings compared to small and marginal farmers, because the large farmers have greater control over the supply of scarce agricultural resources, greater access to credit, and are able to divert to their use the facilities which are legislated for small and marginal farmers.

4.1.3 With regard to landless labour, the decline from 11.68 per cent in 1960-61 to 9.34 per cent in 1971-72 of such households to total rural households must be seen in relation to expanding population. From that point of view the absolute size of landless households increased from 17 million in 1953-54 to 22 million in 1970-71 and probably to 26 million in 1981-82. In the 1981 census agricultural labourers are defined "as a person who worked in another person's land for wages, in cash, kind or share crop. Such a person had no risk in cultivation but merely worked in another person's land for wages. An agricultural labour had no right of lease or contract on land on which he worked". It gives the number of agricultural labourer as 55.4 million, which when computed in terms of the 1970-71 norms will be 16 million.[28] In the final section the status of landless labourers, particularly in regard to their share of the farm product and wages will be discussed. Taking that and the continuous increase in the proportion of small and marginal landholder and their falling per capita land holdings into account, the answer to the basic question with which this section started is that while there is no empirical evidence of the immiserisation of the small farmer or pauperisation of the peasantry, there is a trend towards the proletarianisation of the agricultural economy of the country.

4.2 *Agrarian Reforms* In the pre British days most land belonged to the king, who gave it to some of his followers and appointed others to collect land tax. The British government inherited and consolidated this system of innumerable intermediaries between the government and the tiller of the soil, with a heavy bias in favour of the big, often absentee, land owners, who got their land cultivated by labourers working as tenants. After independence, the constitution placed land reforms as a state subject — 18C of the states list, with directive principle, article 39, stating that the ownership and control of material resources of the community should be so distributed as to sub serve the common good and not result in concentration of wealth and means of production. Being a state subject, there were built in differences in land reform legislation as between the states. The First & Second Five Year Plan laid down the foundations for land reforms. By 1963 legislation for comprehensive tenancy reforms were enacted in 16 states. The Second Plan suggested converting tenants into owners and fixing rents. Different states appointed comittees on land reforms and on their recommendation adopted legislation on ceiling, on future acquisition of land, and on existing holdings, which had wide inter state differences as to (a) the maximum ceilings allowed, (b) exemption from ceilings for various types of land uses, (c) the right of resumption, (d) the compensation paid for take over of land above the ceiling and (e) the disposal of the taken over land. The Planning Commission land reforms survey under its Research Programme Committee showed the need for the study of the large number of malafide transfers which had been effected circumvent the law and which led the National Development Council to ask for safeguards to implement the legislation fully. On tenancy reforms which aimed at reasonable rents, security of tenancy and the gradual transfer of ownership from the owners to the tenants, the First Plan made tenancy reform the major plank of agrarian reform, with the owner's right to resume land allowed only in exceptional case. The Second Plan referring to the loopholes in

tenancy reform to define personal cultivation (which was the excuse for resumption of land by the landlord) more precisely. The Third Plan found voluntary surrenders and resumption of land not regulated and recommended completing the ownership by tenants of non resumable land, and the payment of rent directly to the government and not to the land lords. The Fourth Plan found the position of tenants still insecure and recommended legislation for security of tenure and the provision of penalties for wrongful eviction. The Fifth Plan found leasing taking place on a large scale along with evictions, the absence of security of tenure, unsatisfactory share cropping arrangements, and wide variations in ceilings between states, which led to the establishment of guidelines on ceilings and tenancy reforms in 1972. But the Sixth Plan still found that tenants and share croppers were denied occupany rights, and recommended that they should be given them, and that the right of resumption should be denied. To sum up, all the Plans provided for drastic reforms in tenancy and ceilings, and yet starting with the second, each Plan till the Seventh records failure of implementation.

4.2.1 Against this historical background, the 1985 report of the Ministry of Agriculture and Rural Development reminds us that the main objectives of the land reform programme is "the removal of such institutional, and motivational obstacles as stood in the way of modernisation of agriculture and a more egalitarian social structure" which calls for (a) abolition of intermediary tenures, (b) provision of security of tenures in order to confer ownership on them, (c) imposition of ceilings on agricultural holdings and distribution of the surplus to the landless, and marginal and small land holders, (d) preparation and maintenance of land records, and (e) consolidation of land holdings. It reports that by now (i) intermediary tenures have been abolished, (ii) 20 million tenants have been brought into direct contact with the state, (iii) 8 million tenants have acquired ownership over 7.2 million hectares in 14 states, and

where ownership rights are not conferred as in 4 states further leasing is prohibited, (iv) legislative provisions of security to tenants and share croppers ensure rent at 1/5 to 1/4 of gross product and prohibition of eviction, except on specific grounds, (v) several million acres of waste, fallow and other land are vested in the state,a large part of which is distributed to the landless and marginal farmers, by 1972 21.90 lakh acres distributed to 15.56 beneficiaries, and after the 1972 national guidelines 43.25 lakh acres were declared surplus, 30.04 lakh acres taken over and 21.64 lakh acres distirbuted to 16.28 lakh landless families of whom 52per cent were scheduled castes and scheduled tribe persons. Thus since inception of the land ceiling programme, 72.34 lakh acres has been declared surplus, 56.90 lakh acres taken over, 43.54 lakh acres distributed to 31.84 lakh persons. The government reports that the 28.80 lakh acres yet to be distributed comprise 16.36 lakh acres in litigation, 8.55 lakh acres unfit for cultivation or reserved for afforestation, with only 3.86 lakhs acres remaining to be distributed: and (vi) consolidation of holdings have been completed in Punjab, Haryana, for the most part in UP and in some areas of Orissa, Bihar, Geujarat, Maharashtra and Himachal Pradesh. Legislation for consolidation exists in all states except Andhar Pradesh, Tamil Nadu and Kerala. As of August 1984 18 lakh hectares forming 39 per cent of the cultivated land have been consolidated.

4.2.2 Among the problems faced are (a) the lack of correct and upto dated land records which are needed for security of tenure and flow of credit and inputs to small and marginal farmers, (b) existence of concealed and bogus tenancies which are unprotected, (c) the ceiling is set at a high level ranging from 10-18 acres of wet lands which can produce 2 crops a year to 54 acres of dry land or orchard per family. With the new agricultural technology, a much lower ceiling would be viable, and so there is need to redefine the ceiling. In addition there is need to arrive at an agreement on the real surplus. Even on the present basis, the Draft Plan 1983-84 using NSS data estimated the area of surplus

TABLE III

	Average size of Holdings (hectares)				Size of holdings and food grains output		
	1970–71	1976–77	1981–82		Production of foodgrains (000 tonnes)		
					1970–71	1976–77	1981–82
Marginal	0.40	0.39	0.37	Wheat	26,561	29,000	37,451
Small	1.44	1.42	1.40	Rice	42,250	4,19,168	53,248
Medium	2.81	2.78	2.75	All food grains	108,422	1,11,166	133,294
Medium	6.08	6.04	6.02				
Large	18.10	17.57	17.50				

Source: NSS and Economic Survey 1982

land available for distribution as 220 lakh acres against the 72 lakh acres now declared surplus referred to earlier.[29] The distribution of this further 150 lakh acres to the landless and small farmers need not cause disquiet, because it has been amply demonstrated that small farms are more intensively cultivated, that returns on their inputs are more optimal than those of large farms, that credit made available to them leads to cultivation of the uncultivated lands, while the equivalent credit made available to large holding is often diverted to more profitable non agricultural investments, apart from the proven thesis that the new farm technology is scale neutral.[30] In fact a study of the output of marginal holdings which increased by 25 per cent in 1976-77 and of small holdings by 9.6 per cent shows that their production has not only not declined, but has actually increased as the table III (page 29) records.

Thus the argument that land reforms will lead to decrease in foodgrains output is not supported by any empirical evidence. What is needed is a lowering of the ceiling, an application of it to the real surplus available, and a distribution of the surplus to the landless labourers, marginal and small farmers. Apart from the need to introduce a greater degree of interstate uniformity in the ceiling, the fact that the courts sustain the landholders objections to application of the ceiling legislation points to the need to amend the legislation to plug the loopholes, place it above judicial review, and tighten the land reform machinery administration, which should be separated from the Revenue machinery in the state.

4.2.3 The general drift of all the land reform measures has been in the direction of enlarging and increasing the number of owner producers below the ceilings. How much of this movement was due to the reform measures, how much to technological forces and how much to demographic pressures was earlier rather summarily referred to but is a subject which needs study and research. The reforms also had their impact on middle and large landowners,

"most of whom had slumbered in their fuedal preserves until the early fifties". They were 14 per cent of land owing households but according to the RBI survey operated 53 per cent of the cultivated land in 1970-71. They used the new technology, hired labour and tenanted farms to become the capitalist farmers who are found all over the country, contributing the major part of the marketed surplus, and representing a powerful social and political force in the country.

4.3 *Slater villages* As these lectures are being delivered in Madras university, it is appropriate that I refer to the 5 of the 15 villages now in Tamil Nadu that the first Madras university professor of Economics, professor Gilbert Slater, undertook to survey in 1916-18 with a view to getting his economics students understand "the causes of and remedies for Indian poverty", rather than study economics as "a series of unintelligible theories to be learnt parrot fashion from Marshal's Principles" to use his own words. To see the social change brought about by agriculture over the last 70 years (1916-1985) in the five Tamil Nadu villages of Dusi, Palakurichi, Vedamalipuram, Gangaikondan and Iruvelupattu I will compare briefly the conditions described by Slater and those set forth in the Resurvey of the five villages undertaken by the Madras Institute of Development Studies between 1982-85.[31] This involves the application of the analysis of the peasant structure and land reforms undertaken in sections 4.1 and 4.2 and an advance preview of rural labour conditions to be referred to in the next section - 4.4.

4.3.1 In the 1916 survey of *Dusi*, it is reported that a quarter of the population who were brahmins owned two thirds of the land, and seventy years later they were 2.5 per cent of the population and owned 28 per cent of the land. During this period, there has been an increase in the number of small and marginal farmers. While the top 3 per cent of households own 37 per cent of land and 52 per cent of pumpsets, about 59 per cent of all households

are landless. Land under tenancy which was 70 per cent in 1916 has now decreased to 23 per cent due to the passage of ownership from non cultivating landlords to self cultivating peasants, and the resumption of tenancies following the tenancy legislation of the 50s. Most of the tenancies now are Al-Varam Labour tenancy which is in distinguishable from direct cultivation. The reduction in tenancies since 1961 is also due to many tenants joining the ranks of landless labourers. Weaving has been the main non agricultural occupation and might have reduced poverty, though the Resurvey concludes that "present levels of poverty, among agricultural, weaving and other non agricultural households are so high — of the order of 60 per cent or more — that any improvement in its trends over time offers little practical consolation".

4.2.3 In *Palakurichi* the 1916 survey showed very high concentration of land ownership, within a relatively few families of a single caste, which has persisted and become more entrenched, with a large proportion of absentee ownership, and land ceiling legislation provided enough loopholes, whereby a substantial proportion of land can be closely held, without infringement of the law. Poor peasants have not acquired land overtime because they lacked surpluses to do so and those who had land did not part with it. Tenancy which was not high in Slater's time is even now insignificant. Landlessness is nearly total among the Harijans. Agricultural labourers have become strongly unionised under communist leadership in Palakurichi, making impossible crude landlord repression, or the worst forms of social discrimination aganist Harijans. Though agitations in the 40s and 60s have improved wages, demographic pressure has reduced employment and inflation has kept real wages down to what they were 4 decades ago.

4.3.3 In *Vadamalaipuram* there has always been unequal land distribution from the Slater days, to which the new agricultural technology between 1958 and 1983 has contri-

buted a marginal increase in land concentration. Nearly 80 per cent of households were either landless or held less than 5 acres in 1916 compared to 65 per cent in 1958. Real wages for agricultural labour have hardly increased between 1916 and 1983, and at Rs740 per capita is well below the 1983 poverty line. The major economic change in the village has been the development of manufacturing which increased non agricultural employment of the villagers from 1.6 to 31 per cent, mainly through the spinning mill and match factories. The Resurvey concludes "to sum up, there has been a considerable economic growth and modernisation in Vadamalaipuram over the 70 years since 1916, but it has not improved the living levels of the mass of the population. Through all the changes, the higher landlords have kept their position intact and have enriched themselves. This is hardly surprising since the changes have taken place within the context of a prior distribution of means of production and on the basis of the rules of the game that protect and reinforce the ownership structure. State intervention too has scrupulously respected the rules of the game, and more often than not, actively intervened on behalf of the economically and socially dominant stratum".

4.3.2 In *Gangaikondan* there has been a significant reduction in the concentration of landownership with the Gini ratio declining from 0.64 in 1958 to 0.48 in 1984. The one limitation of this conclusion, stated by the Resurvey, is that the biggest landowners were not covered, resulting in significant concealment of land held by some respondents which makes the sample suspect. There has been a decline in tenancy areas from 1/4 of the operated area in 1958 to 1/8 in 1984, and the associated emergence of the cultivating castes of Thevars, Konars and Harijans as land owning castes. Share rent arrangement has been replaced by cash rent. The number of cultivators has declined in absolute terms between 1961 and 1984, while that of agricultural labourers has increased nearly 5 times in that period. Both real wages and the average number of days of employment

have increased, due to increased employment in wood cutting, charcoal making, brickmaking and construction. Despite the rise in wages and employment, practically all the agricultural labour households live well below the poverty line. The average earnings of an agricultural labour household works out barely to 3/5 of what would be required to reach the poverty line. The social infrastructure of the village has improved since the first survey in 1916, in literacy rates, school facilities, health facilities and housing. Roads and Transport facilities are, however, poor. The conclusion is of a slow process of modernisation, disappearance of absentee landlordism, and the uneven distribution of the benefits of agricultural development. There is a considerable surplus of labour, which with the skewed distribution of assets have reinforced inequalities. Nevertheless the lives of the villagers are changing and with it their perceptions.

4.3.3 In *Iruvelupattu* (which was the first village resurveyed), land ownership continues to be dominated by one big landlord in 1982, as it was in Slater's time, when he is reported by Slater to have held 400 acres, which was a mistake, as it was 350 acres, along with a group of families owning 177 acres, among whom one family had 77 acres. As a result of the Ceiling Bill of 1960, the big landlord's present family's legally owned and effectively controlled land (though nominal holders, leases to servants, attached labourers and absentee friends and relatives) is over 250 acres. While the share of land holdings at the top have increased from 25.2 to 38.9 per cent between 1890 and 1981 there has been a proliferation of small holdings from 19.8 per cent to 49.7 per cent in that period. The Harijans who are 30 per cent of the population own less than 3 per cent (18 acres), with 95 per cent of the 50 landless families being harijans. The big land lord owns 35 houses, 28 pumpsets (36 per cent), 3 tractors, a truck, a rice mill, shares and other assets in Madras and other places. Against 391 acres leased out in 1937, in 1982 only 49.82 acres (7 per

cent) were under tenancy. Whereas 85 per cent of caste Hindu households are either cultivating families or engaged in non agricultural occupation, 82 per cent of Harijan households are agricultural labourers. Agricultural labour households consist of padials whom Slater in 1916 described as a "sort of serf who has fallen into hereditary dependence on a landowner by debt" (we today call them bonded labourers), and he found 40 padials being employed by the big landlord in the village. The 1982 Resurvey found 36 padials, of whom 22 were in the big landlord's family. Padials generally came from the same family, generation to generation and were given 11-22 measures of paddy a month plus a midday meal, which is today 30 measures of paddy and 7½ measure of ragi per month. Wages in paddy measures fell between 1937 and 1980, and were lower in Iruvelupattu than in adjacent villages, because the big land lord as a dominant employer in the labour market is able to beat down wages. Even with the lower per capita monthly figure for the poverty line of Rs 51 for rural India the officials figure is Rs 78 in 1979-80 prices), all the agricultural labour households were below the poverty line. Slater stated that debt is a universal condition, paying rates of interest of 24 or 36 per cent per annum. The 1982 Resurvey found that on the Rs 70,000 lent by the people in the village, the rate of interest varied from 55 to 300 per cent per annum. Many public services — education, health, water supplies, electricity, veterinary services and distribution of essential commodities — have developed since 1916 but the access of harijans and other poor sections to them is limited. Slater's conclusion about the dualism of the caste village and the cheri (which he described thus "even in this small almost self contained Dravidian community we find two civilizations"), continues today: he further refers to the Indian worker having a low standard of expenditure and efficiency and Indian employers not believing in the economy of high wages, and of "various strands of economic, social and religious conditions and customs being strongly and deftly inter woven in the web of South

Indian life", of which "low wages, low efficiency and high abstinence are the ground plan of the pattern". This is true of our rural life even 70 years latter today.

4.4 *Agriculture Labour* The analysis upto this point referred to landless labour, constituting about half of the rural labour households, (the rest of the households had some land averaging about 0.5 hectare per household), and drawn exclusively from scheduled castes, scheduled tribes and what are called the most backward castes.[32] While the percentage of rural wage labour households has risen from 25 per cent to 30 per cent in 1974-75 and to 37 per cent in 1977-78, the proportion of landless households in this group has declined at varying rates among its components, declining from 39 to 37 per cent among scheduled castes and rising from 51 to 53 per cent among other backward classes.[33]

4.4.1 What has been the nature of the movement of wages of rural labour, particularly landless labour in this period? At the macro level, the supply of rural wage labour has been rising as the census for 1961, 1971 and 1981 show at 60 per cent for the period, both because of the growth of the rural population and the proletarianisation trend noted earlier, while the demand for wage labour has not risen, both because of the greater use of family labour with the decline in the average size of marginal, small and medium small holdings recorded in table III earlier, and because, apart from irrigation, the new seed fertilizers technology does not generate a proportionate increase in employment as in output per hectare. In the case of larger holdings, while mechanisation has led to reduced wage employment, the larger use of irrigation leads to increased demand for labour and where agricultural growth is high as in Punjab, Haryana and Western UP, the demand for wage labour outrun supply and leads to higher real wages. But for the country as a whole, the NSS rounds, the official series on Agricultural wages and the Rural Labour Enquiries show that between 1964-65 and

1974-75 average real wage rates for men fell in 12 out of 14 states and for women in 11 states and that workers were employed for fewer days in 1974-75 compared to 1964-65. Even in the areas like the North West where real wages have risen, they have not risen as fast as the land holders income.[34]

4.4.2 The effect of this declining real wage trend for rural labour households on per capita real consumption of the households has been to depress it in 1974-75 compared to 1963-64 (according to the Rural Labour Enquiry). Using data in the per capita consumption patterns of the poorest quartile of the population, which includes most of the rural labour households and all of rural landless labour households for the period 1958-59 to 1973-79 along with the earlier analysis of the proletarianisation of this class, there is noted a decline in living standards among the rural landless labour households, particularly in most parts of the country where agricultural growth has been lower than population growth. What is serious here if that there is evidence,[35] that the landless poor make adjustments by supstituting low cost for medium cost food and by cutting out non food items, with serious effects on the nutritional status of the members of rural landless household families, particularly its vulnerable members, infants and lactating mothers, with regard to morbidity, body weight, and mental growth and development. This may account for the tragic fact that men and women of this poor class — rural landless labour families — weighed 10-15 per cent less than the upper class families,[36] and their children drop out or are pushed out of school, in part, because their mental faculties are damaged.[37]

4.4.3 There are extensive legislative provisions for minimum wages which however, are no solution to the problems of falling real wages and falling consumption standards of landless labourers. During 1984-85, minimum wages were revised for employment in agriculture, construction and maintenance of roads and buildings, construc-

tion and maintenance of runways, and 29 mining employments. The problem here is the non implementation of the legislated or established minimum wages. In one of the latest surveys conducted by the Labour Bureau, Shimla, of the implementation of the minimum wage legislation for agricultural labour in one of the larger states, it is reported that (i) the 1982 statutory minimum wages of Rs 8.50 per day in cash is not paid, but the Rs 4.5 fixed in 1975 is being paid, (ii) against the statutory wage of 5 kgs of paddy or grains of the same value per day, the wage paid varried from 1 kg to 4 kg of paddy per day, (iii) the proportion of labourers working getting cash wages was the highest in backward districts (40 per cent) followed by 24 per cent in the not so backward districts, while no cash payments were made in the developed districts, and (iv) the statutory wage for harvesting fixed at one bundle for every ten bundles of items of the harvested crop, against which in the middle level districts the wage paid is one for every twelve bundles of harvested crop, and in backward districts one bundle for every twenty.[38]

4.4.4 There is one more development which has only recently come to light since the National Labour Bureau and the Gandhi Peace Foundation conducted a national survey in 1977 on the class of landless labourers called bonded labourers, who work in conditions of slavery for their land owners, who are bought and sold for generations among the landed without any question of wages or mobility and are in deep debt to the households group, and who are tied permanently to the landed rural households which own them andout of which they can never be relieved. As of 31 December 1984, the government reports that 1,73,814 bonded labourers were identified and 1,31,407 rehabilitated. This is the result of 8 years of effort. Given the fact that there are 22.4 lakhs of bonded labourers, as recorded by the the National Survey, at this rate of identifying and releasing them, it will take the country over 60 years until 2050, before we will be rid of this scandal. What, is

needed is a revolution, a movement to free all of the bonded labourers and rehabilitate them during the Seventh Plan.

Epilogue One of the latest econometric models for India presented in one of the Occasional Papers of the Reserve Bank of India[39] describes the agricultural sector in the model as follows: "Factor cost at constant prices YAR) includes the output of allied activities like forestry, fishing and animal husbandry. The output of this sector is estimated as being dependent on production of foodgrains and non foodgrains. The area under foodgrains is specified as a function of the relative price of foodgrains and rainfall in a partial adjustment framework (equation 36). A similar function is specified for the area under non foodgrains (equation 37). Production of foodgrains is estimated as a function of area under foodgrains, percentage of area under irrigation, which in turn is related to capital stock in agricultural (equation 73) and rainfall (equation 1) Production of non foodgrains is also explained likewise(equation 2.) Agricultural Production is then obtained as a statistical function of foodgrains and non foodgrains production. The net domestic product at factor cost originating from the agriculture sector (value added) is estimated as a function of the gross output of the agriculture sector (equations 3 & 4,) assuming that the input costs are proportional to the value of output. This procedure also implies that the output in allied activities is directly related to agricultural production". This somewhat dry, matter of fact and relatively value free (except that it accepts the existing values as a datum) was the starting point of this lecture series, where, however, in examining the results of the model on society, some far reaching social changes and transformations have been identified and analysed. In the analysis there is a bias, the bias being in favour of the poor, of the weaker sections of rural society, with an indication of the socially undesirable directions of change and how they may be corrected. That, I believe, is a tribute that we should pay to the intrepid scholar, scientist and statesman, Sir William Meyer whom we commemorate through these lectures.

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