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V. M. JAKHADE

I do not use mere words of convention when I say that I am grateful to the fellow-members of the Indian Society of Agricultural Economics for having chosen me the President of this Twenty-ninth Annual Conference. It is a happy coincidence that this year I complete twenty-five years of my membership of the Society. During this period, I had the good fortune to be able to serve the Society in different capacities in my humble way; still, I am aware that I do not have a record of achievements and excellence in either teaching or research in Agricultural Economics which should have qualified me for elevation to this exalted chair. I am conscious, my friends have shown respect for elderliness customary in a tradition-bound society in warmly favouring me. I do wish to say how happy really I am and what a debt of gratitude I owe you all.

On this occasion, I remember the architect and builder of our Society, Sir Manilal B. Nanavati, who was a source of inspiration and guidance to me as to many of you. Under his dynamic leadership the Society grew in status and stature and has become an All-India body. Thanks to his indefatigable zeal and efforts, starting with the Agricultural Economics Section in the Bombay University School of Economics, Agricultural Economics has received recognition as a subject of equal importance with other Social Sciences in almost all Indian Universities. The setting up of nine Agricultural Universities and an equal number of Agro-Economic Research Centres is an eloquent testimony to the growing importance of the subject. The family of agricultural economists has been growing fast throughout the country. A great visionary that he was, Sir Manilal thought of even organizing branches and chapters in a few regional centres. Perhaps the time has come to translate this idea into reality. I pay my respectful homage to his revered memory. With the passing away of Sir Manilal, the heavy yoke of this chariot of Jagannath has devolved on the strong and broad shoulders of a renowned scholar and a distinguished agricultural economist, Prof. M. L. Dantwala. Let all of us holding the ropes of this chariot, assist him in leading the Society to a brighter future.

For the last eighteen years, India has embarked on a bold, new experiment in national planning. It was bold in the sense that a poor agrarian economy was expected to be transformed into a self-generating modern economy in a period of two to three decades. It was new because the experiment was to be conducted within the framework of a democratic federal system of government. The basic objectives of this experiment in national planning were stated in the First

* Presidential Address delivered on the occasion of the 29th Annual Conference of the Indian Society of Agricultural Economics held under the auspices of the Andhra University, Waltair on December 29, 1969.

Plan as "maximum production, full employment, the attainment of economic equality and social justice."¹

Elucidating these objectives, the Second Plan stated that "these values or basic objectives have recently been summed up in the phrase 'socialist pattern of society.' Essentially, this means that the basic criterion for determining the lines of advance must not be private profit but social gain, and that the pattern of development and the structure of socio-economic relations should be so planned that they result not only in appreciable increases in national income and employment but also in greater equality in incomes and wealth. The benefits of economic development must accrue more and more to the relatively less privileged classes of society, and there should be a progressive reduction of the concentration of incomes, wealth and economic power."²

The Third Plan reiterating the emphasis of the earlier Plans stated that "development along socialist lines will secure rapid economic growth and expansion of employment, reduction of disparities in income and wealth, prevention of concentration of economic power, and creation of the values and attitudes of a free and equal society."³

The Fourth Five-Year Plan (Draft) has stated that "the basic goal is a rapid increase in the standard of living of the people, through measures which also promote equality and social justice. Emphasis is placed on the common man, the weaker sections and the less privileged. It is laid down that planning should result in greater equality in income and wealth, that there should be progressive reduction of concentration of incomes and wealth and economic power and that the benefits of development should accrue more and more to the relatively less privileged classes of society, and, in particular, the scheduled castes and the scheduled tribes whose economic and educational interests have to be promoted with special care."⁴ The broad objectives of planning could thus be defined as rapid economic development accompanied by continuous progress towards equality and social justice and the establishment of a social and economic democracy.

The draft of the Fourth Plan is under discussion. Much against the wishes of those who were hoping a retreat from planning, long-term planning is now being revived in India. Perhaps, a look back at our progress towards the achievement of basic objectives in the agricultural sector, I felt, may not be out of place.

Agriculture was given primacy in the Plans. The achievements in this sector in terms of production potential created appear quite significant. During the period of fifteen years ending 1965-66, more than 3 million hectares were reclaimed and more than 5 million hectares benefited from the soil conservation programmes. The net cultivable area expanded by nearly 20 million hectares and the gross

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1. First Five-Year Plan, Planning Commission, Government of India, 1953, p. 28.
 2. Second Five-Year Plan, Planning Commission, Government of India, 1956, p. 22.
 3. Third Five-Year Plan, Planning Commission, Government of India, 1961, p. 9.
 4. Fourth Five-Year Plan, 1969-74—Draft, Planning Commission, Government of India, 1969, p. 4.

cropped area by 23 million hectares. With more than 8 million hectares coming newly under irrigation, one-fifth of the gross cultivated area in the country has now received benefits of irrigation. There has been a sharp rise in the number of wells constructed and electrical pumps installed and of tractors and other agricultural machinery purchased. The quantities of chemical fertilizers consumed totalled 2 million tonnes in 1968-69. Despite these efforts, the rate of growth of agricultural output at 3.19 per cent (compound growth rate) between 1949-50 and 1964-65 lagged much behind expectations. Leaving out the two abnormal years 1965-66 and 1966-67, the production in the subsequent two years had shown a rise and the prospects during the current year appear promising because of favourable weather conditions and partly because the investments made during the past few years have started giving fruits and the new technology has come to stay, particularly in respect of wheat. During the Fourth Plan period, agricultural output is expected to grow at the rate of 5 per cent per year. The scope for extension of cultivation being rather limited, this step-up would have to be generated by a distinct rise in productivity as well as in intensity of cropping. This in turn would call for tremendous efforts in the field of irrigation, scientific soil and water management, plant nutrition and improvement of the genetic capabilities of crops. There are some hopeful signs in these areas. Equally, if not more important is, however, the involvement of a growing number of peasants in the programmes of agricultural development so that an advance simultaneously towards the objectives of growth and equity and social justice becomes possible in an environment of social and political stability.

(Greater equality of incomes and wealth through accrual of more and more benefits of development to the relatively less privileged classes and progressive reduction of concentration of incomes, wealth and economic power has been one of the basic objectives of our planning. Have inter-regional and inter-class disparities shown signs of narrowing down? To what extent have the small farmers, tenant cultivators and agricultural labourers ~~have~~ been able to adopt modern technology, raise their incomes and to share the benefits of agricultural development? How far have other programmes for provision of subsidiary occupations and more employment to small farmers and other low income groups ~~have~~ been effective? These questions are extremely difficult to answer in the absence of the required data on distribution of personal incomes over a period of time.) A few studies are available but they do not provide data separately on the rural household sector and they relate to the mid-fifties. In view of the urgency and importance the subject has assumed recently, an attempt has been made to put together some fragmentary data to find out some broad indications, if any. Considering the paucity of data, their limitations and varying reliability of different sources, restraint needs to be exercised in reading a more concrete meaning into the numbers than a close examination will bear.

(First, I present some data on consumer expenditure, personal disposable income and ownership and cultivation of land in the rural household sector at two points of time to find out the changes in distribution patterns, if any. The achievements of the programme of redistribution of land and adjustments in land rights are then given. This is followed by a brief presentation of findings of some field investigations on adoption of new technology by small farmers and tenant cultivators and its impact on the income distribution. A brief assessment

is then made of the extension of modern technology to dry and tribal areas and its impact on relative income position of these regions.)

II

The NSS data on consumer expenditure in 1953-54 showed that the average annual per capita expenditure at current prices was Rs. 206.88 and that 63.71 per cent of the rural population spent less than this average. The per capita expenditure in the highest bracket was more than fourteen times larger than in the lowest bracket. In 1963-64, the average annual per capita consumption expenditure at current prices was Rs. 268.44 and 63.97 per cent of the rural population was below this average. The per capita consumption expenditure in the highest class was more than thirteen times larger than that in the lowest class. A classification into fractile groups showed that the top 10 per cent of the population accounted for 26.54 per cent of the total consumption expenditure in 1953-54 as against 3.60 per cent in the lowest expenditure bracket. In 1963-64, the respective shares were 24.54 and 3.91 per cent. The concentration ratio of distribution of consumption expenditure was 0.334 in 1953-54 and 0.301 in 1963-64.

In respect of size distribution of income in rural areas, an attempt was made to estimate personal disposable income and its distribution during the period 1953-54 to 1956-57.⁵ Following the same method, an estimate of personal disposable income of rural households and its distribution for 1963-64 at current prices has been worked out. The results of this exercise, in view of the limitations of data and various assumptions made should not be taken as definitive; they represent only a broad picture of income distribution rather than a precise indication of the shares of the different groups.

Of the total rural households, a vast majority (96.9 per cent) had personal disposable income up to Rs. 3,000 per year and obtained 87.6 per cent of the total disposable income in 1953-54. On the other hand, the high income group (with income above Rs. 3,000) accounting for 3.1 per cent of the rural households obtained 12.4 per cent of the personal disposable income. In 1963-64, the proportion of low income households declined by 1 percentage point and their share in the total disposable income came down by 4 percentage points. On the other hand, the proportion of households in the high income bracket and their share in the total disposable income improved to 4.1 per cent and 16.6 per cent respectively.

During the decade ending 1963-64, the per rural household disposable income increased by 31.9 per cent. The rise in the case of the low income group was 27 per cent as against 32.5 per cent in respect of the high income group. The distribution of rural disposable income by fractile groups revealed that between 1953-54 and 1956-57, the top ten per cent of rural households accounted for 25 per cent of the total disposable rural income as against 4 per cent by the lowest 10 per cent. In 1963-64, the share of the top 10 per cent had risen to 27.47 per

5. P. D. Ojha and V. V. Bhatt, "Distribution of Income in the Indian Economy : 1953-54 to 1956-57" and "Pattern of Income Distribution in India : 1953-54—1956-57," *Reserve Bank of India Bulletin*, Vol. XVI, No. 9, September, 1962 and Vol. XVII, No. 9, September, 1963, respectively.

cent and that of the bottom 10 per cent had remained more or less unchanged. The concentration ratio for 1953-54 to 1956-57 worked out to 0.306; this ratio increased to 0.326 in 1963-64.

Data on size distribution of assets of rural households are not available over a period of years. Some data on ownership of land, which forms a major asset of the rural households, are available through the NSS and relate to 1953-54 and 1961-62. These data bring out that distribution of ownership of land holdings is highly uneven and that, during this period, there was no appreciable reduction in inequality. In 1953-54, the top 10 per cent of the households owned 52.33 per cent of all lands belonging to households; in 1961-62, this proportion was 51.70 per cent. The lowest 10 per cent of the households owned 0.44 per cent of total owned area in 1953-54; this proportion declined to 0.18 per cent in 1961-62. The concentration ratio of household ownership holdings (excluding landless) which was 0.68 in 1953-54, changed to 0.69 in 1961-62. Among the States, the concentration ratio showed a marginal deterioration in nine States, whereas in five others, there was a slight improvement.

According to the NSS data in respect of distribution of household operational holdings, 73.76 per cent of households operating holdings below 5 acres accounted for 19.82 per cent of the total area operated in 1961-62. On the other hand, 4.46 per cent of households operating holdings of 20 acres and above accounted for as much as 35.35 per cent of the total area operated. These different sets of data do not indicate any perceptible tendency towards narrowing down of income and wealth disparities in the rural sector during the decade ending 1963-64.

III

An important measure taken for redistribution of land was the imposition of ceiling on land holdings, which aimed at reducing inequalities in ownership and use of land and in agricultural incomes. Between 1958 and 1962, practically all State Governments passed legislation providing for the maximum extent of land which a person may hold or acquire in future. According to available information, hardly two million acres have been declared surplus, of which about one-half has been distributed so far. Practically in all States, there is a wide gap between the expected surplus and the area actually acquired, due to, among others, high ceiling limits prescribed, ceiling being applicable to individual members of a family with liberal allowance for each additional member above five, a number of exemptions provided, time lag in enforcement and indifferent implementation. As stated in the Fourth Plan—A Draft Outline, “the programme of ceilings set out in the Plan has been diluted in implementation. There were deficiencies in the law and delays in its enactment and implementation resulting in large scale evasions. Several States had made provisions for disregarding transfers made after a specified date, but often these provisions proved to be ineffective and not much surplus land has been available for redistribution. The main object of ceilings which is to redistribute the land to the landless at a reasonable price on a planned basis has thus been largely defeated.”⁶

6. Fourth Five-Year Plan—A Draft Outline, Planning Commission, Government of India, 1966, p. 131.

Other measures which imply adjustment in land rights in favour of small holders and tenants, are the abolition of intermediary tenures and tenancy reforms. By now, most of the intermediary tenures have been abolished and about 20 million tenants have come in direct relationship with the State and have become owners of their holdings. As a result of legislation for enabling tenants to become owners of land they cultivated, nearly 3 million tenants have acquired ownership on about 8 million acres of land.

However, the benefits of the laws for security of tenure could not be fully reaped by a large body of tenants, mainly because of the right of resumption for personal cultivation granted to the landlords. Though this right is a continuing one in a few States, in many others, the period within which it could be exercised has expired. Besides the loose and ambiguous definition of the term "personal cultivation," the fictitious partitions of holdings and the rather high limit prescribed for permissible acreage, the progress of disposal of applications for resumption of land has been very slow, resulting in a sizable proportion of pending applications out of the large numbers received. Even among those disposed of, a substantial number of cases was decided permitting resumption. A large body of share-croppers like *Adhiars*, *Bargadars*, *Sajehdars* is not yet recognized by law, which is evaded through a variety of informal crop sharing arrangements, leading to increasing insecurity. There have been ejectments of tenants through devices such as voluntary surrenders. Rentals charged have been in a large number of cases more than the maximum level prescribed. Assessing this performance, one can surmise that, while some of the patent blemishes of agrarian relations have been removed, much inequity still persists in many regions of the country which has implications on rural income distribution pattern in the context of the new technology.

IV

The agricultural production strategy adopted in the Third Plan laid emphasis on the IADP approach. It envisaged that the development efforts would be concentrated in areas where assured water supplies created fair prospects of achieving rapid increases in production and that within these areas there would be a systematic effort to extend the application of science and technology including the adoption of better implements and more scientific methods to raise production. The new approach emphasized the necessity of providing the cultivator with a complete package of practices including credit, modern inputs, price incentives, marketing facilities and technical advice in order to increase yields. The economic rationale of IADP was considerably strengthened by the technical break-through that occurred in the form of high-yielding varieties of wheat, paddy, etc. The new strategy, therefore, in essence called for the implementation of the HYV Programme in districts that already had been selected for intensive development under the IADP and IAAP schemes following the same extension concept embodied in the package programme. Considering the progress made during the last three years, the new strategy promises a higher rate of growth in foodgrains production and attainment of self-sufficiency. From a long-term point of view, increased incomes in agricultural sector thus generated will result in larger demand for consumption goods and increased employment in consumer goods industries. Increased availability of foodgrains which is the principal wage good, at reasonable

prices, may help to accelerate growth process. It may also pave the way for regional specialisation and diversification of agricultural economy.

The HYV Programme has also been expected to open up prospects of growth to a large body of small farmers as the new technology is assumed to be neutral to scale. As a result of extension programmes carried out in these areas during the last few years, the small farmers have taken, though on a limited scale, to the use of chemical fertilizers, improved seeds and a sizable number of them may take to adoption of new technology, if given the necessary wherewithal. Obviously the large farmers with better access to needed inputs, larger resources for investment on land and greater ability to take risks will apply the new technology first, and be pioneers to reap the gains. Thus it is said that in the transitional stage, for no fault of the new technology, social tensions may arise and income distribution worsen. It may, therefore, be useful to find out the extent of participation of small farmers in this Programme. The Programme being hardly three years old, adequate data are not available. Reports on a few sample enquiries conducted recently by some researchers have become available; but the areas covered by them were limited and the reference period was generally one year. Despite these limitations, some of their findings may help provide some broad indications.

A sample survey on HYV Programme reported that in the initial year (1966-67) of the Programme, the authorities selected larger and progressive farmers. In the *Kharif* 1967 also, the medium and bigger farmers were drawn more in the Programme than the small farmers. Though the Programme was still mainly confined to the big cultivators, small farmers have also started participating in it.⁷ The PEO Report on the *Rabi* wheat 1967-68 pointed out that the extent of adoption was seen among all classes of cultivators, but the proportion of participants was one-third among the smaller cultivators, whereas it was about two-fifths among the bigger and medium cultivators.⁸ The finding of the Report on the *Kharif* paddy 1968 was similar, the proportion rising from 15.67 per cent in the lowest group to 56.25 per cent in the highest group.⁹

In a recent study of Ludhiana district which has been a leading IADP district and where practically the entire wheat area has been brought under the dwarf Mexican variety, it is reported that the gains of the new technology have been very unevenly distributed. In this district, where the majority of cultivators has economic holdings of 15 to 20 acres or more, and has accumulated surpluses from savings or through loans, for capital investment in minor irrigation and improved equipment, the benefits of new technology have been mostly widely, albeit still unevenly, shared. Probably, only the bottom 20 per cent of all farmers, *i.e.*, those with holdings of 10 acres or less have experienced a serious relative deterioration in their economic position.¹⁰

7. Report on the High Yielding Varieties Programme (Kharif 1967-68), Directorate of Economics and Statistics, Ministry of Food, Agriculture, Community Development and Co-operation, Government of India 1969 (mimeo.), p. 94 and Preface.

8. Evaluation Study of the High Yielding Varieties Programme—Report for the Rabi 1967-68—Wheat, Programme Evaluation Organisation, Planning Commission, Government of India, 1968 (mimeo.), p. 23.

9. Report on Evaluation of the High Yielding Varieties Programme—Kharif 1968, Programme Evaluation Organisation, Planning Commission, Government of India, 1969 (mimeo.), pp. 199-200.

10. Francine Frankel, *The Financial Express*, November 28, 1969.

Another study in Saharsa and Purnea districts in Bihar where socio-economic conditions were less favourable, showed that nearly 64 per cent of the small farmers did not report use of the high-yielding varieties and 77 per cent not even of local improved varieties and between 68 and 78 per cent did not use modern inputs at all or to the full extent of dosages prescribed.¹¹

These two studies highlight the fact that the prospect of achieving optimum increases in yields with the new package of inputs as also extension of multiple cropping is dependent on the availability of assured water supply and of sophisticated farm equipments and replacement of bullock power by tractors. Thus, those who command resources for these investments may be able to exploit the new opportunities to a much larger extent. Evidently, the small farmers and tenant cultivators who show willingness to adopt modern technology, will receive relatively smaller benefits for lack of sufficient capital to sustain indivisible inputs and to increase the use of fertilizers, pesticides, etc., and for want of security of tenancy and handicaps arising from fragmentation of holdings.

The studies in the paddy growing districts also showed that a large body of cultivators are aware of the benefits of the new varieties and that they have been using small dosages of chemical fertilizers even for the local improved varieties because of the impact of IADP. But, for raising two short duration rice crops, the need is for supplementary water sources, dry threshing floors and agricultural machinery and ability to engage adequate labour at crucial times. The enquiries in West Godavari¹² and Thanjavur¹³ showed that those cultivators who could invest in filter points or in tube-wells and could secure production credit for financing larger inputs in land could benefit more by taking to IR 8 in both the *Kharif* and *Rabi* seasons. But the tenants who have to part with a large share of their gross produce as rent and the small farmers could not follow for reasons similar to those mentioned already.

A study conducted in two talukas in Gujarat State during 1967-68 where hybrid bajra was grown also observed a significant association between the size of operational holding and the adoption of new technology. The main finding of this study was that the farm business income per holding increased with the increase in the size-group and not only was the income from large farms higher but an opportunity for a skilled cultivator having large holding to reap substantially higher returns was also present. On the other hand, among the small farmers in both the areas, not even the best cultivator in the sample of non-adopters' group could earn more than Rs. 2,000 while a large majority among the adopters' group could not earn more than Rs. 5,000 as farm business income.¹⁴ These studies indicate that at least in the initial stage, the benefits of new technology have flowed

11. Problems of Small Farmers of Kosi Area (Purnea and Saharsa Districts), Secretariat Press, Patna, 1969, p. 47.

12. G. Parthasarathy : Agricultural Development and Small Farmers, Department of Co-operation and Applied Economics, Andhra University, Waltair, 1968 (mimeo.).

13. Participation of Small Tenant Farmers in Thanjavur District, Tamil Nadu, in the High-Yielding Varieties Programme—A Case Study Reproduced in Organizational Framework for the Implementation of Social Objectives—Report of a Study Group of the National Credit Council, Reserve Bank of India, 1969.

14. V. S. Vyas, D. S. Tyagi and V. N. Misra : Significance of the New Strategy for Agricultural Development for Small Farmers—A Cross-Sectional Study of Two Areas of Gujarat, Agro-Economic Research Centre (for Gujarat and Rajasthan), Sardar Patel University, Vallabh Vidyanagar, 1969, p. 75.

unevenly to different classes of landholders. This emphasizes the urgency of programmes designed specially to help the small cultivators to adopt modern technology and to participate in the fruits of agricultural development, if the emerging income disparities are to be narrowed down.

Some of these investigations have also spotlighted some emerging trends from uneven spread of modern technology among the different classes of agriculturists which portend serious implications on the pattern of income distribution and socio-economic conditions in rural areas.

The increasingly adverse land-man ratio, inflationary conditions and rising agricultural prices, growing demand and speculative purchases in an extremely narrow market have resulted in a steep uptrend in land prices during the past few years. The sharp increase in productivity of land and the larger returns to management with the adoption of the new technology have accentuated this trend. Larger farmers now find a positive advantage in larger units of management with new possibilities of more efficient agriculture with mechanization. In purchase of land, they find a very lucrative investment for their profits, in total disregard for the legislation on ceilings on land holdings. As an instance, recently a research study has reported that, in the Punjab, "land owned by the big farmers increased, between 1955-56 and 1967-68 by about 9.5 per cent. This average hides a significant range of variation in the rates of expansion. Farms of the size-groups 20-25 acres expanded only by 4 per cent whereas those of the size-group 100-150 acres increased by about 40 per cent. Most of the addition to size took place through purchases."¹⁵

The introduction of modern methods of production accelerates the pace of transformation of the farm economy from subsistence to profitable farm business. As a result, landowners are now more likely to be influenced by rough calculations of opportunity costs in determining whether to lease out a part of their land or to cultivate it directly than by traditional feelings of personal obligations to customary tenants. Thus, the temptation to resume land has become intense, particularly for those land holders possessing assured irrigation sources and equipped with modern agricultural machinery. Already, I have referred to the position regarding the right of resumption for personal cultivation granted to the landlords under the tenancy legislation in various States, the spate of evictions that followed and delays in its implementation. Reports of pressures for 'voluntary surrenders' have also been heard from different areas. Such resumptions, if permitted or connived at, would adversely affect the small farmers, with leased in plots of land by reducing their operational holdings. Pure tenants will be reduced to the low status of agricultural labourers. Thus, "in the absence of stringent safeguards, there is real danger that tenant cultivators, specially the smaller ones, will be overwhelmed should another wave of resumption occur. It has been the general experience that any attempt to record tenancies, without absolute protection from eviction to the tenants may lead to large scale dispossessions in the guise of voluntary surrenders."¹⁶ However, this tendency for resumption may perhaps

15. Ashok Rudra, "Big Farmers in Punjab," *Economic and Political Weekly*, September 27, 1969, p. A. 145.

16. Chief Ministers' Conference on Land Reform, Notes on Agenda, Government of India, November, 1969 (mimeo.), p. 34.

not affect the medium size holders as also the bigger influential tenants to that extent.

From rising land values to the enhancement of rents is hardly a stone's throw. According to the NSS, nearly one-tenth of cultivated land was tenant cultivated in 1961-62. This does not, of course, include concealed tenancies. With profits from cultivation rising, there are more farmers who want to lease in than to lease out. Consequently, the rents show a persistent tendency to rise. Compared to five years ago, cash rents have increased. Generally, a share-cropper paid one-half of the produce as rent but recently it is reported that this proportion has gone up in many areas. The rising rents thus deprive the lessee of his legitimate share in the fruits of agricultural development.

The legislation regarding security of tenancy, in this new context, has actually increased the insecurity of oral lessees or tenants-at-will. The fear of share-croppers claiming the right of security has resulted in many cases in moving them from plot to plot every year. A Bihar study reported that they are seldom allowed to cultivate the same land for a number of years and most landowners settle the land with different share-croppers every year. Only some of the landowners are sharing 50 per cent of the cost of HYV seeds, fertilizers, pesticides and irrigation. The new technology has been adopted by a very small percentage of share-croppers. These emerging trends need immediate preventive measures if the economic and social tensions in rural areas have to be avoided in the interest of agricultural development.

V

As the IAAP and HYV Programmes would cover areas which have adequate irrigation facilities or receive assured and timely rainfall in the growing season, large rain-fed areas will have to depend on the normal schemes of agricultural development. Among these areas is a low rainfall region (average annual precipitation of less than 750 mm.) comprising 77 districts accounting for a little over one-third of the total area sown in the country.¹⁷ In this region by and large, rainfall is the only source of water supply and cultivation of jowar, bajra and other millets is predominant. Thus, as the other areas progress under the intensive development programmes, the relative income position of this region is likely to worsen. Further, if the new technology brings about a major aggregate increase in production of foodgrains in general and of millets in particular, this region for which no innovations have been evolved, will have no advantage of increased efficiency and reduced cost in production, but still will be affected by the decline in prices. Hence, in this region, incomes may decline in an absolute as well as relative sense.

The impact of this development may be most adverse on the small farmers. Cultivation of hybrid jowar and bajra, even at an average level of efficiency requires assured rainfall or one or two waterings from supplementary irrigation sources. The construction costs of a well being large and the chances of failure to strike water being high, only the large cultivators can afford to take a chance. But the majority of small farmers cannot afford to take the risk and thus will not be able

17. Nilakantha Rath : A Note on Dry Agricultural Regions and Small Farmers (mimeo).

to adopt the new technology, unless the State or the co-operative agencies undertake a programme for construction of minor irrigation works or wells, which has to be backed up by a programme of development of infra-structure including research directed to the special problems of these areas. The experience in Mehsana and other districts in Gujarat in this respect is encouraging and a recent study has indicated that, given assured water supply, even the hybrid bajra growers with five to seven acres can become viable and creditworthy.

VI

I may like to refer briefly to another group of low income areas where the scheduled tribes predominate. The total scheduled tribes population was about 30 million in 1961, of which nearly 88 per cent depended on agriculture and 68 per cent cultivated lands, which are of comparatively poor quality, practically without any irrigation facilities and on which food crops are grown. Nearly 55 per cent of the holdings are up to 5 acres and another 25 per cent between 5 and 10 acres.

For agricultural development of these areas, more than 400 Multipurpose Development Blocks were formed since 1956, with the object of giving special attention to terracing, irrigation, agriculture, housing and social amenities. In order to initiate the tribals in the improved agricultural practices and to take full advantage of them, financial provision was made for granting aids/subsidies for purchasing inputs, agricultural implements, bullock, etc.)

A recent survey in two Tribal Blocks in Gujarat,¹⁸ reported that the tribals in these blocks have started using ploughs and adopted transplantation and other modern practices. A majority of them raised wheat and rice of superior quality and have taken to cultivation of cash crops like cotton and groundnut. This shows the potentiality for development if suitable techniques are made available and adequate know-how and resources are provided. But in many other blocks, no systematic efforts seem to have been made by the extension agency. The Tribal Development Blocks covered hardly one-third of the total tribal population; and within these blocks, those living in small pockets in the deep interior forests have been neglected and as such have derived very little benefit from the various development programmes undertaken. In some blocks, due to the absence of proper preliminary surveys, the various programmes were not formulated in accordance with the felt needs of the people. Summing up the position, the Annual Report of the Scheduled Tribes Commissioner (1965-66) stated that "the benefits of the schemes have been derived by the economically stronger and more vocal sections of the tribal population. The more advanced sections of the tribal people seem to be getting more of the benefits of the various schemes undertaken in the Blocks than the people who need help and guidance most."¹⁹

(In the programme of distribution of reclaimed lands and land acquired through the imposition of ceilings, tribals were to be given priority. But because of the limited area that became available for distribution and many other claimants

18. Report of the Commissioner for Scheduled Castes and Scheduled Tribes—1967-68 (Seventeenth Report), Vols. I and II, Government of India, 1969, p. 69.

19. Report of the Commissioner for Scheduled Castes and Scheduled Tribes for the Year 1965-66 (Fifteenth Report), Vols. I and II, Government of India, 1967, p. 144.

being given higher priority, the area allotted to them was very small. On the other hand, the pressures arising from increase in land values have been making themselves felt in respect of lands belonging to these tribes also. Though in most of the areas there are legal restrictions on alienation of lands belonging to these tribes, these have proved inadequate for protecting their interests. It is reported that large areas held by these persons are passing to moneylenders, traders and substantial holders who do not belong to these tribes, in many cases, by fraudulent and questionable devices. Such alienations have given rise to discontent and tensions. Unless special programmes oriented to meet their peculiar conditions are undertaken, the relative income position of these areas is not likely to show any improvement.)

VII

(Among the low income groups in rural areas, agricultural labour is numerically the most predominant. Being mainly dependent on wages, its well-being is directly and intimately associated with the availability of employment in and outside agriculture as also with the movement of wages relative to rural cost of living. Before touching these aspects, I may refer briefly to some schemes formulated for raising their incomes and levels of living.

I have already mentioned the poor outcome of the scheme for allotment of lands acquired through imposition of ceiling on land holdings. Under the Land Settlement Scheme in the Third Plan, only 96,000 families were settled on 3.54 lakh acres during the Plan period which was just below one-third of the target. Similarly, the Rural Works Programme in the Third Plan was expected to provide 100 days' work in a year to an increasing number of workers, the target being about 2.5 million workers in the last year of the Plan; but, actually, the achievement was hardly 16 per cent of the target. The minimum wage legislation was enacted in most of the States but its coverage was restricted to specific areas in some States whereas, in some others, certain categories of land holders were exempted from its application. Above all, in quite a few States, the minimum wage fixed being below the prevalent level, the statutory provision by itself conferred little benefit on the labourers. There is a tendency to substitute kind payments by cash wages. Available evidence shows that some improvement in agricultural wages has taken place mainly in areas where the local labour is barely adequate to meet the seasonal rise in employment and has been able to bargain for higher wages with the land holders. This experience shows that effective implementation of guaranteed minimum wage depends on several factors, of which availability of alternative employment is the most important.

(At present, two major forces which are operating on the employment and wage situation in the farm sector are growth of agricultural labour population and swelling their ranks by tenants and marginal cultivators divested of their status or right. On the other hand, the extension of cultivation and an increase in the intensity of cropping made possible by extension of irrigation and adoption of modern technology under the impact of IADP and HYV Programmes have brought considerable gains to this class. For making any precise assessment of the impact of these divergent forces on the real income position of these labourers, the available data are totally inadequate and, in some respects, undependable. However, a

broad assessment can be attempted on the basis of available fragmentary data and some indirect evidence.

The new technology is characterized by frequent application of water, fertilizers, insecticides and has resulted in double cropping, higher outturn, larger volume of transportation, marketing and processing of agricultural produce. All these, in turn, add to the demand for labour at the primary, secondary and tertiary levels. It can, therefore, be assumed that the new technology creates more employment of labour and by providing an extra harvest, also tends to increase the average money incomes of farm labourers. Results of some *ad hoc* enquiries have indicated that, with the adoption of new technology, the number of man-days of labour employed increases by 10 to 25 per acre. There has been an increase in daily money wages including perquisites, though, where wages were paid in kind, there is a tendency to reduce its proportion to produce harvested. As against this trend, rural costs of living, particularly food prices, have been rising and thereby mitigating the benefits of this rise in cash wages. Moreover, the rise in wages has been much slower than that in return to management with the result that the disparity in incomes is further widened. Taking a very broad view, the general impression one gets is that, the economic condition of agricultural labourers has improved to some extent in areas where the extent as well as pace of agricultural development has been very marked, while the same cannot be affirmed about agricultural labourers in other areas. However, considering the magnitude and seriousness of the problem of agricultural labour and the total inadequacy of data for an assessment of the impact of the agricultural development programmes on this class, one wonders whether the third Agricultural Labour Enquiry is not long overdue!

VIII

I am fully conscious that any attempt to arrive at broad generalisations about economic and social variable on the basis of fragmentary data or a few selected district studies is hazardous, particularly in a sub-continent like India where conditions differ from district to district and even from village to village. Therefore, what I have said may be viewed as some broad indications of the extent of adoption of innovations in the initial stage, by different classes of cultivators and its likely impact on the pattern of rural income distribution. With the technological break-through that has occurred, the agricultural sector is now poised for a higher rate of growth. The message of modern agriculture has reached a large body of cultivators, who now aspire for a better future. Some patent blemishes of land tenure system have been removed and the institutional infra-structure has been strengthened. However, in view of the fact that the optimum utilization of the new opportunities depends on the availability of resources for investment in irrigation and for meeting higher cash outlays on modern inputs, a large proportion of small farmers have not so far been able to take full advantage of them. On the other hand, the bigger farmers seem to be pushing ahead. Thus in this transitional stage, some signs of widening of income inequalities and of social tensions in rural areas are discernible. Efforts, therefore, will have to be directed through special schemes for enabling small farmers to undertake necessary investments and acquire technical know-how and thereby raise their incomes. As the spread of the modern technology is confined, at present, to areas with

assured rainfall and availability of irrigation, the low rainfall regions and tribal and other backward areas will need special development programmes for raising their income position as well. From this angle, attention may be drawn to a few pertinent points, though no claim is made that they are new or original.

I have pointed out to the possibility of income position of dry areas worsening both in absolute and relative terms with the advance of modern technology in the selected areas. It is necessary, therefore, that special programmes for development of these areas are undertaken, which should include among others, schemes for conservation of rain water, research in evolving seeds capable of growth within a short duration and development of infra-structure like transportation facilities, education, etc. As the development of these areas will centre around availability of ancillary water sources, special schemes for construction of wells by the small cultivators on joint ownership basis or by the State or co-operative agencies will have to be promoted, which should be supported by new cropping practices suited to agro-climatic conditions in these areas.

As regards the tribal areas, in addition to the general district schemes of development, new schemes of area development taking into account the physical resource endowment and the special ethnic and socio-economic peculiarities need to be promoted alongside development of forest industries and other programmes for increasing employment opportunities. Such programmes may help raising incomes in these areas.

Even with the adoption of new technology at high efficiency level by the small farmers, a large number of them will continue to remain non-viable. In order to help them increase their incomes, programmes for integrated development of agriculture and subsidiary occupations on the lines of the Page Scheme in Maharashtra should be encouraged actively.)

In view of the social tensions emerging in some rural areas, it is very necessary that land reform measures already undertaken, should be effectively implemented. Enactment of seemingly radical measures without serious efforts to implement them will lead to further frustration and discontent. From this point of view, some broad lines for immediate action are : firstly, ceiling should be made applicable to aggregate area held by all the members of the family. The existing ceiling legislation should be effectively implemented and cases of unlawful transfers made with a view to evading the legislation should be scrutinized and reopened. For bringing uniformity in the ceilings prescribed by the different States, some rationale may be evolved. Secondly, the right of resumption which has remained unexercised over one year since its accrual should be extinguished, and a time limit set for deciding pending cases of resumption. The term 'personal cultivation' should be strictly and unambiguously defined. Land under voluntary surrender or ineffective purchase under the tenancy law should revert to the landlord up to the ceiling limit but the rest must accrue to the State. Thirdly, the tenancy legislation should be extended to share-croppers and tenants-at-will who have not been recognized so far, so as to extend them permanent and heritable rights in land. The effectiveness of these provisions would depend on the existence of a complete record of rights in land. The work of making these records complete and up-to-date should be expedited and the representatives of both

tenants and owners be actively associated with it. Changes which have occurred more recently should be subjected to special scrutiny and a moratorium be imposed on all transfers and resumptions till such a record is completed. Fourthly, an official agency may be set up in the villages for collection of rents and for negotiation of leases in future. There should be stricter enforcement of law restricting alienation of land by tribals and the cases of alienations during the last five years should be reopened and scrutinized.

Fragmentation of holdings is one of the major handicaps of the small farmers. Besides accelerating the progress of the consolidation of holdings programmes, they should be encouraged to organize services such as community wells, pest control on a co-operative basis. The Phad system in Maharashtra is worthy of emulation.

The adoption of modern technology, particularly the HYV programme, depends on the availability of adequate credit facilities. Inadequacy of institutional credit has been a major handicap in the participation of the small farmers and tenant cultivators in these programmes. The co-operative credit agency with its reorientation following the Rural Credit Survey recommendations was expected to meet their needs. But despite great strides made in recent years, the co-operatives have not been able to serve these farmers adequately, because of a number of restrictive practices. There has been definite advance during the last few years in relaxation of certain of these practices. In almost all the States there has been an increase in individual maximum borrowing power and in several areas the maximum limits of surety loans to tenants have been raised. In several State Co-operative Acts, provision has been made for the creation of a charge against the cultivator's interest in land even if it be tenancy. A right of appeal against refusal of membership of co-operatives has also been granted. It is reported that these practices still continue in many areas, though on paper they are supposed to have ceased to exist. Recently, the All-India Rural Credit Review Committee has made comprehensive recommendations for future development of institutional credit for agriculture. They have devoted special attention to the credit problems of the small farmers and have made several recommendations which need to be speedily and effectively implemented. A special mention may be made in this connection of the proposal for setting up a Small Farmers Development Agency which is well under way. It is intended to cover on a pilot basis 20 districts. This scheme is to be tried as an experiment in supervised credit to enable potentially viable farmers to utilize the credit effectively for increasing production to raise themselves to a viable status. Though the programme is modest, it is a timely and useful reflection of the need to broaden the scope of agricultural development.

(Among other institutional credit agencies, the commercial banks, first in terms of social control and more recently in terms of the nationalisation of 14 major banks are now poised for greater involvement in the provision of agricultural finance. A programme for expansion of their branches into rural areas has already been underway and some of these banks have recently initiated schemes for provision of credit to small farmers. In five States, where the central co-operative banks are weak, in consultation with the concerned authorities, the branches of commercial banks will provide loans to agriculturists through pri-

many credit societies. Their contribution to the debentures of land development banks has been increasing. Such co-ordination between the commercial and co-operative banks and other newly set up institutional agencies for financing agriculture will go a long way to meet the problems of credit to farmers.

As for agricultural labour, the problem of this class would call for an increasing attention in the coming years. An effective solution of their problem would depend not merely on the statutory fixation of minimum wages but also on the initiation of special schemes designed to increase opportunities of employment in rural areas such as, rural works programmes properly oriented to the local needs and conditions, development of agricultural processing and other agro-industries. Possibilities of settling as many of these labourers as possible on land need to be fully explored. The ultimate solution of their problems, however, lies in rapid industrialisation and faster economic development.)

Additional schemes for enabling small farmers and tenant cultivators to raise the level of productivity of land, to develop subsidiary occupations and to undertake a bigger rural works programme will need additional outlay and investment in the public sector. With a view to mobilizing additional resources, there appears to be some scope within the agricultural sector itself. The contribution of land revenue and agricultural income-tax constituted less than 2.5 per cent of State agricultural incomes in 1967-68. Land revenue with a simple fixed liability is regressive in character, the rates fixed have now become out of date and its yield has proved stagnant between 1960-61 and 1967-68. In the context of the technological revolution, there is need to make the land taxation system more equitable in burden and responsive in yield to changing money incomes. In many of the States where agricultural income-tax has been introduced, the incidence is low because of high exemption limits, low tax rates and indifferent implementation. Direct taxation of agriculturists so far is thus out of accord with modern concepts of progressivity. From this point of view the system of agricultural tax needs to be rationalized and extended so as to cover all the States. As such a step is likely to take some time, perhaps as a transitory measure a graduated scale of surcharge on land revenue may be immediately levied. Resources may also be raised through borrowings from this sector, in the form of rural debentures, etc.

Friends, the main purpose in choosing the subject for this address is to emphasize the need for research in problems of agricultural development and income distribution which have not received adequate attention so far. The results of such research studies, I trust, will provide useful guidelines in formulation of income policy for attainment of the objectives laid down in the Plans. In my view the fruits of agricultural development need to be widely spread among the rural community so that the national effort to step up agricultural development proceeds in an orderly and peaceful way.