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Vol XXV
No. 3

ISSN 0019-5014

CONFERENCE
NUMBER

JULY-
SEPTEMBER
1970

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

RAPPORTEUR'S REPORT

ON

PATTERN OF INCOME DISTRIBUTION, SAVINGS AND EXPENDITURE IN RURAL AREAS

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Introduction

For this subject 16 papers have been submitted for discussion. As given in the brief outline of the subject for discussion, the main theme of discussion on income distribution should be on the impact of technological changes in agriculture, which have taken place in the recent past, on income and distribution of income among various factors of production and also among people owning and/or utilizing these factors of production. The multiplier effect of agricultural development within the agricultural sector and outside the agricultural sector was also an important aspect of the subject. The variation in income distribution among different regions and different types of farming areas within the regions was also required to be studied.

It seems that most of the papers submitted at the Conference have not focussed their attention on these aspects of income distribution. Hence it is difficult to discuss different aspects of income distribution arising from the papers only. As regards the papers on the subject of savings and expenditure, there was a lack of effort to establish relationship between income, savings and expenditure.

Topics for Discussion

We may take up the discussion on various aspects of income distribution, savings and expenditure in the following order:

- I. Definition of Income Distribution, Savings and Expenditure
 - (a) Definition of income.
 - (b) Definition of income distribution.
 - (c) Definition of savings.
 - (d) Definition of expenditure.

- II. Pattern of Income Distribution in Rural Areas
 - (a) Functional distribution of farm income.
 - (b) Personal income distribution among various classes of farming community.
 - (c) Personal income distribution among various classes of rural population.
 - (d) Personal income distribution among various regions.

III. Trends of Income Distribution

IV. Savings

- (a) Relationship between savings and income.
- (b) Relationship between savings and investment.
- (c) Relationship between income and investment.
- (d) Trend of savings.

V. Expenditure

- (a) Pattern of expenditure.
- (b) Inter-sectoral expenditure pattern.
- (c) Relationship between income and expenditure.
- (d) Trend of expenditure.

VI. Policy Implications

- (a) Policy measures to reduce the income gap.
- (b) Policy measures to promote economic growth without wide income gaps.

I

DEFINITION OF INCOME DISTRIBUTION, SAVINGS AND EXPENDITURE

(a) *Definition of Income*

There is a confusion regarding the concept of income used in different papers. In some papers income is used to represent gross income of farming whereas in others it is meant to represent "farm business income," although no paper has used the word "farm business income." The general accepted definition of farm business income in India is gross income minus cost A_2 . It is very important to be conceptually clear regarding the definition of income before we can discuss income distribution. The variation in the definition of income can be explained in the context of the aspects of income distribution which we want to discuss. If one wants to study functional income distribution the obvious meaning of income would be gross income or the value of total output which is the result of the combination of different factors used. If one wants to study personal income distribution then the definition of income would vary from net income or net disposable income to farm business income in agricultural production and disposable personal income for other sectors of the rural economy. Unfortunately, no paper has tried to define income in its proper context.

Some papers have used the term income distribution for the generation of income from various sources such as crop production, milk production and hiring of labour. The main aim to discuss income distribution is not from which origins the income is generated but to know to which destinations income flows after being generated. Hence it is suggested that we clarify the definition of income and income distribution.

(b) Definition of Savings

There could be variations in the definition of income considering the context in which income distribution is studied but conceptually there is not much room for the variation to occur in the definition of savings related to personal disposable income. If one allows for consumption expenditure from the personal disposable income the remainder can be defined as personal savings. In the aggregate terms, "savings" can be defined as current output minus current expenditure. The definition of current could be period-bound not exceeding one year. The propensity to save can be either related to personal disposable income at the individual level or to aggregate output at the aggregate level.

(c) Definition of Expenditure

The definition of expenditure should also be made clear in the context in which it is used. In the case of functional relationship between income and expenditure the latter would mean expenditure on various factors of production which are used to bring about the output. When expenditure is related to personal disposable income it would mean family expenditure incurred for durable and non-durable goods.

II

PATTERN OF INCOME DISTRIBUTION IN RURAL AREAS

(a) Functional Distribution of Farm Income

Very few papers have dealt with this aspect of income distribution. J.S. Garg, G. N. Singh and H. L. Srivastava have not referred to this aspect in their paper but have provided data on expenditure of different factors of production. The additional expenditure on labour and material inputs due to the adoption of high-yielding varieties (HYV) indirectly indicates higher shares of income for these inputs. The additional expenditure on labour per hectare on big farms was not as much as on small farms. But it is common knowledge that the hired proportion of labour is much higher on big farms than on small farms. It could, therefore, be assumed that a substantial portion of labour expenses particularly additional expenses on large farms must have gone to hired labour. Thus the impact of HYV must be substantial on wage incomes.

S. L. Shah and L. R. Singh have given the results of Cobb-Douglas production function relating output with various factors of production on small, medium and large farms which have undergone technological changes. The marginal value product (MVP) of land on small farms is not much different from that of large farms. The interesting aspect is, however, that the MVP of human labour on large farms is much higher than on medium farms. Again assuming that hired labour component of human labour on large farms would be high, the higher MVP of labour would create a greater demand for hired human labour on large farms. As a result the wage income of hired labour would go up.

(b) Personal Income Distribution among Various Classes of Farming Community

Many papers have given data on income per farm and per hectare/acre among various size-groups of farms. These data by themselves do not give an idea re-

garding income distribution among various groups of the farming community. Very few papers have commented as to what happens to income distribution as technological changes take place. Although Garg, Singh and Srivastava have given the data on income per farm for different size-groups of farms during the period when the rate of adoption of HYV increases, they have not commented on the aspect of income distribution. The analysis of the data shows that the income gap between "small" farms and "large" farms is increasing with the adoption of high-yielding varieties. S. L. Shah and R. C. Agrawal show that income disparities widen between the two types of farmers (progressive and less progressive) and between the size-groups of farms within each type due to the impact of the new technology. Although the disparities of income between large and small farms have increased, a substantial portion of the increased income of large farmers is spent on labour inputs and the purchase of new inputs such as chemical fertilizers, new seeds and irrigation. It would be desirable to discuss whether one should be overly concerned with the widening income gap between large and small farms even if it leads to better disposal of income to hired labour and also to non-agricultural sector.

Shah and Singh show that with the technological changes the returns per acre were much higher on large farms than on small farms. They conclude that as the medium and large farms move to the economic optima, the magnitude of income inequalities is likely to increase. This raises a question as to whether the efficient resource use should not be encouraged if it increases the income disparities.

D. K. Sohoni and R. D. Khandarkar have shown that although the income gap between the large farmer and the small farmer had widened with the increase in irrigation facilities in absolute terms, in terms of growth rate the small farmers had done better. The rate of increase of income of small farmers was four times compared to only two times in the case of large farms.

(c) *Personal Income Distribution among Various Classes of Rural Community*

Few papers have touched this aspect. H. P. Khaund has given an interesting comparison of income distributions among various classes of people in a tribal village at two points of time (1961 and 1967). The settled farming class which had only 21 per cent of the total income of the village in 1961 had attained prominence with nearly 60 per cent of the total income in 1967. The mainly *jhumia* and the solely *jhumia* class (those who depend on shifting cultivation) had gone down in the share of the total income from 14 per cent to only 2 per cent. A new class of non-agricultural casual labour had emerged during the period of seven years having nearly 12 per cent of the total income in 1967. The total income of the village during the seven years had more than trebled. If one looks at the pattern of income distribution, the disparities between the settled farming class and the *jhumia* (shifting cultivation) class had increased. The Lorenz curves for income distribution for 1961 and 1967, however, show that the inequality had decreased in 1967 compared to that in 1961. This shows that the impact of technological development in agriculture for the village economy as a whole led to raising the level of income and at the same time reducing the disparities in income distribution.

H. S. Bal and Gurbachan Singh have defined disposable income and compared the patterns of income distribution among three classes of the rural community, viz., (1) farm families, (2) farm labour families and (3) non-farm families. Although the farm families were relatively richer than the farm labour and non-farm families, the variation in income distribution in farm families was much higher than the other two categories. The Lorenz curves and Gini ratios indicated that the degree of inequality was highest in farm families and lowest in farm labour families.

Umananda Phukan and Dharma Kanta Buragohain have investigated into the distribution of "surplus income" among different occupational classes of the rural areas of Assam plains. The concept of income used was similar to "farm business income" in the case of farm households. In the case of other classes of the rural economy, it is assumed that the concept of personal disposable income must have been used. The data for the year 1963 show that farming households on an average had no surplus income. Only people engaged in trade, commerce and transport and salaried jobs had some surplus. But the rural community as a whole did not have any surplus. On the contrary, it was in debt.

(d) Personal Income Distribution among Various Regions

Biswanath Santra has discussed this topic using consumer expenditure as a proxy variable for income. Using Gini-Lorenz ratio he has shown that a high inequality in an economy with large per capita income implied less human hardship than the same level of inequality with low per capita income. For example, Punjab with Gini-Lorenz ratio of .396 (high inequality) had per capita monthly income of Rs. 32.68 whereas Rajasthan with somewhat similar inequality (Gini-Lorenz ratio .362) had per capita monthly income of only Rs. 23.62. This raises a question as to how human hardships could be minimized: by equitable distribution at the low level of income or tolerating inequality and attempting to raise the level of income?

III

TRENDS OF INCOME DISTRIBUTION

The general notion is that with technological changes in agriculture, the trend of income distribution is towards widening the gap between the rich and the poor. However, there are conflicting empirical evidences to support this notion. Khaund's findings show that in a very primitive agriculture, technological changes do not only raise the level of income but decrease the income inequality to some extent. Sohoni and Khandarkar show that although the absolute income gap between large and small farmers had increased, the rate of growth of income of small farmers was much faster than that of large farmers.

Jagannathrao R. Pawar indicated that the trend of average farm income was rising and the average income increased to nearly two and a half times in 1967-68 compared to 1962-63. But he has not given data regarding the pattern of income distribution at the two points of time.

IV

SAVINGS

Very few papers have referred to this aspect of the subject. There is some confusion regarding the definition of savings. V. D. Galgalikar, M. K. Shingarey and C. D. Deole show in their paper that there was no savings in the case of low and middle income-groups (if we define savings as net income less consumption expenditure). However, they have remarked that in spite of the gap between expenditure and income, savings have been observed in all the income-groups, including low and middle income-groups. While presenting data on savings they seem to interpret financial investments such as shares, bank deposits and national savings certificates as savings.

If we interpret savings as current income less current expenditure, we find that the data on savings are given by Phukan and Buragohain, Sohoni and Khandarkar, Galgalikar, Shingarey and Deole in their papers. Phukan and Buragohain's data pertain to the year 1963 and they show that there was no saving on an average per family in the sample of villages in Assam plains. Sohoni and Khandarkar present the data for the years 1966-67 to 1968-69 from a sample in the Wardha district of Maharashtra and show that small and medium farmers on an average had no saving but had actually deficit in some years whereas large farmers had some savings. However, the trend showed that the deficit of small farmers was declining at a very fast rate. The medium farmers who had deficit in 1966-67 had savings by 1967-68 and the savings of large farmers had increased considerably. This has happened due to increasing availability of irrigation. Galgalikar and others show that only high income families had savings whereas medium and low income-groups had deficit resulting in a very meagre saving per family for the sample as a whole.

V

EXPENDITURE

Expenditure would include production expenditure and consumption expenditure. If production expenditure is discussed in relation to income then the concept of income would be that of gross income. Consumption expenditure would be generally related to personal disposable income. In production expenditure some authors have included "productive farm assets." For the sake of clarity in discussion, it is suggested that such expenditure should be treated as investment and the definition of production expenditure should be confined to only expenditure on services and goods spent to produce output. It is difficult to say whether consumption expenditure during a particular period should include the whole or a part of the expenditure on durable consumer goods purchased during the period under reference.

Production Expenditure

Garg, Singh and Srivastava have shown that as the adoption of high-yielding varieties increases, the expenditure per farm increases. During the three-year period (1966-67 to 1968-69) the average expenditure per farm nearly doubled.

The expenditure per farm on farms in the size-group of 6 hectares and above increased much faster than on farms below 2 hectares. The interesting fact was that the rate of increase in expenditure per hectare on small and large farms was almost of the same order.

The largest share of increase in expenditure in 1968-69 over 1966-67 went to human and bullock labour, followed by irrigation and manures and fertilizers. This indicates an expansion of employment opportunities for hired labour and also expansion of inter-sectoral flow of income. Shah and Agrawal show that expenditure on progressive farms was much higher than on less progressive farms. The expenditure per acre on large progressive farms was higher than small progressive farms. The expenditure per acre on all progressive farms was much higher than less progressive farms. The interesting aspect was that not only the expenditure per acre on new inputs was higher on progressive farms than less progressive farms but the expenditure on labour input was also much higher on progressive farms of all size-groups than the corresponding less progressive farms. The data on different inputs reveal that with the adoption of technological changes there is a tendency on the part of large farms to substitute new inputs for labour. So long as this substitution does not replace labour to a level of corresponding less progressive farmers, the net result of technological changes seems to increase the employment opportunities.

The data presented by Shah and Singh in their paper indicate that with the adoption of the new technology there is a tendency to substitute machines for labour on large farms.

Sohoni and Khandarkar have shown that in their sample the expenditure per acre in 1968-69 was more than double than in 1965-66. The rate of increase in expenditure per acre was higher on small farms than on large farms. Galgalikar and others also find that expenditure per acre was more on large farms than on small farms. Pawar shows an increasing trend of expenditure per acre from 1962-63 to 1967-68 in his sample.

Consumption Expenditure

Phukan and Buragohain have presented the data on average income and expenditure per family from the sample they have studied. It appears from the data that up to the yearly income of Rs. 1,200, there are difficulties to meet both ends. This may be considered as subsistence level of income. If we want to study the propensities to consume and to save, it is better to separate the two groups; those who have below subsistence level of income and those who are above subsistence level of income. In the study under reference, the population having income below subsistence level formed nearly 75 per cent of the total population. Phukan and Buragohain have studied the problems of only surplus or deficit. If they had tried to relate consumption expenditure with income with a view to determining propensity to consume, we would have got a better analytical picture.

H. K. Bal and H. S. Bal have tried to estimate expenditure elasticities for some important groups of consumer items. The elasticity of expenditure of a particular consumer item is estimated with respect to the total family expenditure.

If we take total family expenditure as a proxy variable for income, the data of elasticities of expenditure of particular consumer items could be used to represent propensities to consume. Up to the per capita expenditure level of Rs. 75 per month, the propensity to consume food varies between .7 and .85. It is only after this level that it substantially goes down. This has an important policy implication for agricultural growth and income distribution.

If the elasticities of expenditure of different items were worked out for per capita monthly incomes (expenditure) below Rs. 43 and above Rs. 43, perhaps the expenditure elasticities for the two groups would have been different than the elasticities of the aggregate sample. From the point of view of income distribution this is important. Due to the high income elasticity of foodgrains at low levels of income the demand for additional food in developing agricultural economy would come mainly from landless labourers, small farmers and low income urban population. This has an implication for the hypothesis which John W. Mellor is developing that the rapid development of agriculture requires a broad distribution of income and conversely a broad distribution of a growing income requires rapid agricultural development.

As regards clothing, the per capita expenditure increases much faster after the per capita monthly income (total expenditure) reaches the level of Rs. 43. The propensity to consume durable goods is substantial only after the per capita income level goes beyond Rs. 75 per month.

The Lorenz curves and specific concentration curves give very interesting inferences. Foodgrains is the most evenly distributed commodity and expenditure on durable goods had the highest concentration of .61 followed by clothing.

Among various food items, high elasticities of beverages and refreshments, milk and milk products, meat, eggs and fish and pan, tobacco and intoxicants indicate the growth path of agriculture after the problem of foodgrain deficit is over.

VI

POLICY IMPLICATIONS

The empirical evidence shows that in the rural economy there is a skewed income distribution. People with resource endowments, particularly large farmers, have taken advantage of the new technology and their incomes are rising but at the same time the incomes of small farmers are also rising. In some cases the rate of growth of income is higher on small farms than on large farms. A substantial share of the increased income of large farms is going to hired human labour which is supplied by landless labourers or small farmers or new inputs which increase inter-sectoral income flow. The technological break-through has come mainly to the foodgrain economy. Hence there is a likelihood of fall in foodgrain prices. The income elasticity of foodgrains for low income-groups is very high and hence the benefit of fall in prices of foodgrains would raise the real incomes of low income-groups. At the present stage of agricultural development should we be overly concerned with the skewed income distribution? If so, what measures should be taken so that agricultural development and broad income distribution become complementary to each other?