

LABOUR UTILISATION IN POOR COUNTRY AGRICULTURE

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The study of labour utilisation in poor country agriculture, which is one part of the Village Studies Project (VSP), is concerned with two major questions:

One, how the total labour time in the village is allocated between various alternatives such as work in family farm, work as hired farm labourers, non-farm work, work outside the village, and leisure; and what factors determine such allocations?

Two, is it possible to produce a typology of village job situations which is linked with types of village environment?

The research work on this began in October 1972 when I joined the Institute. Subsequently Roy Laishley (from mid-1973) and Brian Mitchell (from October, 1973) joined to assist me. Henry Lucas, the Institute's programmer, is the fourth member of this VSP sub-group. Our research has been considerably helped by the work of other members of VSP, particularly by the following three reports:

(1) J. Connell & M. Lipton, "Assessing village labour situations in developing countries" (a comparative study of aims, concepts and methods adopted in village surveys and various methodological issues relating to labour utilisation); IDS Discussion Paper No. 35, 206pp. August 1973.

(2) J. Connell, "Labour utilisation: a bibliography of village labour studies (Parts A & B)"; unpublished duplicated bibliography; December 1973.

(3) J. Connell, B. Dasgupta, R. Laishley and M. Lipton, "Migration from rural areas: the evidence from village studies"; IDS Discussion Paper No. 39, 200pp. January, 1974.

The research programme was divided into four distinct stages. In the first stage we scanned through about 1,850 village studies in order to prepare a list of variables on which data were available, and select a sample of village studies which contained both adequate and reliable data.

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Eventually we produced a list of 225 variables, of which 116 could be described as 'labour utilisation' variables and another 109 as 'environmental' (demographic, economic, social etc.) variables. Of the village studies, about 125 studies by the Indian Agro-Economic Research Centres and another 250 studies by the Indian Census Commission contained the kind of data we were seeking. The African studies were generally not sufficiently quantitative to satisfy us, barring a few studies (e.g. Gambia, Nigeria, and Cameroon). An added complication was that many of the studies on Africa and Latin America were available in languages other than English. We reckon that probably another 50-60 studies on Asia (outside India) could be used.

In the second stage we prepared a non-quantitative survey of about 200 villages in order to formulate meaningful and testable hypotheses governing the relationship between labour variables on the one hand and demographic – environmental variables on the other. The findings of this survey have been reported in: B. Dasgupta, "A factor analysis model of village job situations – an outline"; an unpublished duplicated paper which we submitted to the ILO (the funding body) in March, 1973.

During the third stage (which is continuing) we have been involved in two kinds of activities: to extract data on 225 variables from the chosen village studies, and to put them on punched cards; and to conduct some preliminary statistical exercises before undertaking more detailed multivariate analyses. So far we have computed correlation matrices and measures of averages and dispersions and some discriminant analyses on village studies produced by Indian Agro-economic Research Centres.

In the fourth and last stage (which will last from April to July 1974) we will test a large set of hypotheses concerning labour utilisation with more sophisticated statistical methods and prepare the report.

We are aware (perhaps too aware according to some colleagues in VSP) of the limitations of village level data and of the methodological difficulties of establishing the relationship between labour and environmental variables. A major contribution of this study, we hope, would be to underline these limitations with detailed illustrations. But it is also heartening to note that, despite the messy nature of the data base and our very cautious approach, our study on

10 LABOUR UTILISATION IN POOR COUNTRY AGRICULTURE

“Migration from rural areas: the evidence from village studies” did succeed in identifying some patterns in the relationship between propensity to migrate, migrant characteristics, and village level ‘push’ and ‘pull’ factors.

Although our study is far from complete, I would like to briefly report in the following paragraphs some of our tentative findings.

(1) It looks as though most of the villages can be classified into two distinguishable types. ‘Type A’ are prosperous villages (with irrigation facilities, double cropping, high yield) not far from towns/main roads/railway halts, where literacy rates are high, degree of concentration of land ownership is high, and land-man ratio is low. ‘Type B’ are relatively backward villages (with low yield, low level of irrigation, low literacy) situated in areas distant from towns/main roads/railway halts, where land is more plentiful and the degree of concentration of land is low. In the latter, self-employed agriculturist households predominate, while in the former the percentages of landless, agricultural labourers, and non-agricultural households are higher. The ‘Type A’ villages are bigger, with a more diversified economy and occupational pattern and a higher degree of commercialisation of agriculture, whereas most households in ‘Type B’ villages rely on subsistence cropping as their occupation.

(2) It follows from the above that the *overall participation rate* (the percentage of the village population in the work force) is relatively higher in ‘Type B’ villages, where the degree of inequality is less and most households are engaged in family-based subsistence cropping. On the other hand, class divisions are sharper in ‘Type A’ villages where numerically large landless, agricultural labourers and surplus-enjoying richer landholders occupy two opposite ends of the socio-economic scale. In this kind of village the richer elements (at least their women, old-aged and children) withdraw from the workforce of the village, and hire labourers to work their lands; here the inequality of landholdings creates both the demand for and the supply of hired labourers.

(3) The adult males, old-aged, women and children, form a queue for jobs more or less in that order; and the last three groups tend to stay away from the labour market until adult males are absorbed. This conclusion is also confirmed by positive correlations between the participation rates of adult males and other groups. As a

consequence the *overall participation rate* in a village is largely determined by the extent of participation in the workforce by *intermittent workers* such as women, children (0-14) and old (59+), while the participation of adult males does not vary significantly from one village to another. In 'Type A' villages, where the land-man ratio is low and concentration is high, the intermittent workers tend to withdraw from the workforce; first those belonging to *high-status* groups, and then also others in order to make room for adult males in the labour market. On the other hand, in villages with more land per man there is pressure on intermittent workers to work (at least in some specific operations like transplanting or harvesting). Moreover, the existence of subsistence farming in 'Type B' villages makes it easier for the intermittent groups to work in family farms. Out-migration is another way of responding to a situation of land and job scarcity, particularly in the 'Type A' villages.

(4) Where *participation* is high, *duration* of work (measured by number of days worked in the year by hired casual labourers) is low, and *vice versa*. For 'Type A' villages this implies (a) a shift from subsistence, family-based farming to commercialised farming based on hired labour; and/or (b) that the withdrawal of a section of population from the workforce involves more work for others. For 'Type B' villages the low duration with high participation could be due to (a) backwardness of agriculture; and/or (b) the family based farming and the need to spread the available work among a larger workforce in the absence of non-farm job opportunities. The influence of wage levels on participation and duration is not clear.

(5) The percentage of non-agriculturists tends to be higher in 'Type A' villages, which are larger, more commercialized and contain a more diversified economic structure; the positive association with literacy, percentage of households whose members work in towns, and percentage of village produce sold is obvious for these reasons as also is the negative association with the land-man ratio (a characteristic of 'Type B' villages). However, the relationship between this variable and the prosperity of a village is not monotonic in all cases. There are villages where a large number of households are forced to work in non-agricultural pursuits (e.g. artisans of various types) because agriculture is not prosperous. In their case the non-agricultural sector looks very much like a rural 'informal sector' which absorbs those who cannot find agricultural employment. It is

12 LABOUR UTILISATION IN POOR COUNTRY AGRICULTURE

also important to note that according to our definition 'non-agriculturists' is a residual category after the self-employed agriculturists (both owner-operators and tenants) and agricultural labourers have been accounted for; and contains people in occupations ranging from high ranking government officials through those engaged in activities like tobacco-processing, coir-making, laundering and dairy-farming, to barbers, blacksmiths and a host of artisans.

(6) As regarding the distribution of time between family and hired labour, it is weighted in favour of the former in 'Type B' villages and in favour of the latter in 'Type A' villages.

(7) The propensity to outmigrate can be explained by both 'push' (land shortage, low fertility of land, skewed distribution of land, and the resulting high proportion of landless agriculturists), and 'pull' (commercialisation of agriculture, extent of cash cropping, and proximity to town and main roads) factors, as well by 'hybrid' factors (such as literacy). It was also found that intra-village mal-distribution of land both pushes the impoverished landless out of the village and provides the rich with economic surplus to buy into a profitable urban life and/or to acquire education outside village that increases the size of rural-urban income differentials.