Aspects of Poverty in Rural India*

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Abstract

Much of the earlier work on poverty in Rural India has been exclusively concerned with a limited measure of poverty — the number of people below a poverty line usually specified in terms of per capita expenditure. An attempt is made here to provide a mapping of poverty using actual income/expenditure as well as alternative measures of income which "standardize" actual income/expenditure for differences in household composition. A comprehensive index of poverty — the Sen-index which combines aspects of both 'absolute' and 'relative' deprivation — is computed for temporal comparisons. A profile of the poor focusing on their household characteristics is presented to serve as a basis for understanding some of the underlying causal mechanisms of poverty. Finally, some results are presented to illustrate (1) that poverty is virtually a permanent condition for the bulk of the poor; and (2) that large groups of households — especially those with a high dependency burden — sink to abysmally low levels of living.

Much of the earlier work on poverty in Rural India has been concerned with the incidence of poverty in terms of the number of people below a poverty line (e.g. Minhas, 1970; Bardhan, 1970; Dandekar and Rath, 1971). Some of these studies (e.g. Dandekar and Rath, 1971; Vaidyanathan, 1974) present a characterization of the poor in terms of a few household characteristics (viz., occupation of the head of household, participation rate, household size, etc.). While some important characteristics are not examined in detail (for instance, the splitting of participation rates into male and female participation rates, household and non-household work participation, agricultural and non-agricultural employment, etc., may yield insights into the poverty of households despite high participation rates) some others (such as age and sex composition of households) are often omitted. Besides, the interactions of characteristics (for instance, between household size and occupation) have not received sufficient attention. Finally, the question of the duration of poverty — whether poverty is a permanent condition.

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1Vaidyanathan (1974) presents an occupational profile which is largely irrelevant for the rural economy.

2The only exception is a detailed study of poverty in some Asian countries, recently carried out by Visaria (1980).
or merely a transitory phenomenon, i.e. a phase in the life-cycle of a household, for
some groups of households— is seldom raised.

The profile of poverty which emerges is thus somewhat sketchy and incomplete as
a basis for understanding the nature and magnitude of poverty, and its causation. These
are some of the concerns which motivated the present study.

This study is organized as follows. We first address some analytical issues in the
measurement of poverty, viz. (1) the rationale of the Sen-index of poverty which com-
bines aspects of both 'absolute' and 'relative' deprivation; (2) the specification of a
cut-off point for identifying the poor; (3) the alternative measures of 'income'; and (4)
the definitions of the risk and accountability indices of poverty. This is followed by
a brief description of the survey on which the empirical analysis is based. The dis-
cussion of the results is in two parts. We first comment on temporal changes in poverty
in Rural India (over the period 1968–70). The second part focuses on the correlates
of poverty in terms of household characteristics. The risk and accountability indices
of these characteristics are utilized to develop a profile of poverty in Rural India. The
paper concludes with an assessment of the reliability of the results and some general
observations to place the discussion in perspective.

Issues in Measurement

1. The Sen-Index of Poverty

By far the most popular index of 'absolute' deprivation is the head-count ratio. This
ratio (H) is defined as follows:

\[ H = \frac{L}{N} \]

where L refers to the number of poor persons (i.e. the number of persons below a
poverty line) and N to the total population.

Another measure which supplements the head-count ratio is the income-poverty
gap. This index is represented as follows:

\[ I = \frac{\sum g_i}{L\pi} \]

where \( \pi \) is the specified minimum income, \( g_i \) is the income gap of the individual \( i \) (i.e.
\( \pi - X_i \)) and the summation is over the poor (i.e. the set of individuals whose incomes
fall below the minimum income (\( \pi \))).

A combination of these two indices would provide a comprehensive measure of
poverty provided all the poor have the same income. If this is not the case, Sen (1979)
argues that for a given income-poverty gap, a poor person is poorer if the others have
shortfalls smaller than his. It is therefore necessary to supplement these two indices
with an index of 'relative' deprivation among the poor.

Given the axioms of a ranked 'relative' deprivation (i.e. the weight on the income
shortfall of a person is given by the income rank of the person among the poor) and
a normalized 'absolute' deprivation (i.e. if all the poor have the same income then the
overall measure of poverty is given by \( P = HI \)), Sen (1976) shows that the only poverty
measure which satisfies these axioms is given by:

\[ P = HI[1 + (1 - I)G] \]

where \( G \) is the Gini coefficient of the income of the poor.

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3Except for a few recent studies (e.g. Bhatty, 1974), the debates on poverty in India have been exclusively
based on this ratio.

4Some alternative formulations of the Sen-index have been attempted in recent years (e.g. Anand (1977),
Takayama (1979)). In a cogently argued defence, Sen (1979) points out that these formulations reflect con-
cerns other than a description of poverty.