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Methodology for Identifying The Poorest at Local Level

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Abstract

This article argues that the extreme poor warrant specific analytical and policy focus. It attempts to identify the extreme poor in rural Bangladesh by devising sensitive targeting indicators that are effective in minimising leakage to the non-poor while ensuring broad coverage of the target group. A number of indicators are examined, resulting in the conclusion that since no single indicator contains sufficient information, it is better to combine those which are most effective. Regional targeting and household-based indicators are also recommended for the design of extreme-poor oriented programmes. However, if the process of administering is left to the bureaucratic discretion of programme managers, it is unlikely that better identification will have an effect on the extreme poor. This risk can be minimised through consultation with communities and NGOs, and facilitated by effective local government. Information exchange with like-minded programmes can also contribute to the development of more socially equitable and inclusive pro-poor policies.

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I. Do the poorest warrant specific analytical and *policy* focus?

Why should the poorest specially matter, as distinct from the concerns about the state of poverty in general? Should the poorest be helped out first or should the poor still get priority as a "second-best" choice? Are the extreme poor capable of responding to the policy interventions, be they in the area of growth promotion, micro-credit or public health? These are some of the questions that provide the rationale for undertaking a study on methodology for identifying the poorest.

Early poverty thinking on some images of the poorest

The poor are not homogeneous. A sharp division exists among the poor, by age, sex, ethnicity, region, occupation, shelter, land, education, health, even clothing. The gap between the poor and the poorest has long been a source of policy concern. As early as 1840, Antoine Buret, the French economist, wrote about the need for constructing the "tableau of poverty" along with the physiocratic "table of wealth". Firmin Marbeau, who wrote one of the earlier treaties on pauperism in nineteenth century France, was particularly concerned about the state of the poorest, by saying that "in a well-governed State, poverty must not degenerate into indigence. It is in the interests of the rich as much as of the poor that this should be so" (Procacci 1991).

Writing about the livelihood conditions in Faridpur in 1910 Bangladesh, J. C. Jack noted that the population seems to be divided into four categories: in comfort, below comfort (but above hardship), above indigence and indigence. [1] While the first category roughly corresponds to the contemporary equivalent of "non-poor" (those staying above the poverty line, or what Jack termed as line of "Physical want"), that proportion stood at 49 per cent in 1910. The other three categories capture successive gradations of poverty: the matched proportions being 28, 18, and 5 per cent, respectively.[2] Jack was keen to observe that these distinctions are robust to various socio-economic criteria and not derived under income/expenditure-based measures alone. His methodological position, stated over 80 years ago, is worth quoting in full because of contemporary relevance:

[1] J. C. Jack's study was the first of the kind on the well-being and poverty in India under Raj, based on income and expenditure survey data. The study was finished a week before his untimely death in 1915 during the first world war. It provided insights into a number of areas. Here we discuss the aspects relevant to the present discussion only.

[2] The average income per head (in 1910) was calculated at rupees 60 for those "in comfort", rupees 43 for those "below comfort", rupees 34 for those "above want", and rupees 27 for those "in want".

> "For easy comprehension **...** four classes were adopted, representing varying material conditions between comfort and actual want, to one of which each family was allocated. The classification was not made upon figures of income or expenditure, but always upon an inspection of the family and the family circumstances in its own homestead. Only such families as were well-housed, well-fed, well-clothed according to the evidence of the eye were permitted to be classified as living in comfort. By such a safeguard it was intended that the method of enquiry should be thoroughly practical, avoiding anything academic or mechanical, but ensuring accuracy by concomitant statistical investigation (Jack 1916)."

The gap between the poorest and the rest is often difficult to quantify in the income dimension, given the very nature of existence of the former, often as socially excluded beyond the pale of routine social exchange. As J. C. Jack noted, while in the average the statistical "figures of income probably represent correctly the facts", the income of the indigent families is "often so precarious and so largely made up of charity as to be impossible of exact calculation". Here qualitative impressions, or imagery, may be more useful.

The imagery of poverty, as reflected in the literature, is often instructive in deepening understanding of poverty. Images help to cross-check statistics. Such imagery can be of help in forming an idea about who the poorest are. To quote one such depiction by Somerset Maugham:

> "It was the peasant, terribly emaciated, with nothing to cover his nakedness but a rag round his middle the colour of the sun-backed earth he tilled, the peasant shivering in the cold of dawn, sweating in the heat of noon, working still as the sun set red over the parched fields, the starveling peasant toiling without cease in the north, in the south, in the east, in the west, toiling allover the vastness of India, toiling as he had toiled from father to son back for three thousand years when the Aryans had first descended upon the country, toiling for a scant subsistence, his only hope to keep body and soul together. "

Several aspects stand out from the above passage: chronic starvation and hunger, severe deprivation (even in terms of minimum clothing), drudgery, barely persisting at or below subsistence level, poverty carried over successive generations. We shall examine some of these aspects later, as part of discussion on "poor-identifying indicators".

Jack's study noted considerable differentiation among the poor. Some of the latter displayed "poverty only in the quality of their houses and their clothes", while for others it was a clear case

of undernourishment. [3] Added to this was the heterogeneity in occupation, with "weaver working desperately for a subsistence in a declining market, the anxious fisherman with a precarious catch" and "petty trader with his uncertain profits" and "the rude unskilled labourer earning when in work far more than his simple needs require". It follows that occupation deserves special attention in the subsequent examination of indicators. Another aspect that stands out is the emphasis of Jack's study on the gender dimension to poverty and vulnerability:

> "With few exceptions, those families which will be found in chronic need in any Eastern Bengal village will on enquiry prove to be either widows left with a family of young children or old people who are past work and who have no relatives to support them".

In short, many of the currently in vogue concepts of poverty (some of which will be discussed in the paper) can be traced back to earlier thinking on poverty in Bengal and can be of help to develop relevant indicators for poverty monitoring and policy choices.

Differentiation statistics

Poverty trends show little change over the 80 years since J. C. Jack wrote his book. According to his estimates, 51 per cent of the rural population in Eastern Bengal (Faridpur) lived in absolute poverty in 1910; the matched figure for 1994 obtained from the 62-village survey of BIDS is estimated to be 52 per cent. The lowest two categories in Jack's classification correspond to the category of extreme poverty ("above indigence" and "indigence") and represented 22.3 per cent of rural population in 1910. In 1994, the matched figure was 22.5 per cent. Despite the" difficulties in making comparisons over such a long period, the extent of similarity in poverty situation is striking.[4]

The existence of extreme poverty (defined in the dimension of income/ expenditure) can be verified through three major measurement approaches: using information on calorie consumption (so-called direct method), using data on income/ expenditure (so-called indirect

[3] Jack could easily see the difference between income-poverty and other dimensions of poverty, a point came to be recognised in the poverty literature only in the recent period.

[4] In contemporary definition, "extreme poverty" cut-off mark corresponds to per capita daily intake of 1805 calories, while that for "moderate poverty" relates to the intake level of2l12 calories (unless otherwise mentioned this is the definition followed through out the paper). Both the types form sub-groups of absolute poverty. Note that 1. C. Jack's classification is also based on certain implicit minimum consumption norms, as we read: "The Famine Commission, in considering the daily subsistence, took three-quarters of a ser (1 and 1/2 lb) per head of husked rice as the amount required to keep a family of a cultivating classes physically fit". But, Jack was more sensitive to asset and other non-income dimensions in ascertaining the level of poverty in a household than many of the researchers doing poverty studies today.

method), and directly asking households to self-classify themselves into poor/ non-poor categories (so-called qualitative method). These approaches often give contradictory trends (across time or space) and opinions vary as to which one to be used.[5] Here we are mainly interested to note that all three approaches point to the large magnitude of extreme poverty.

The unpublished data for the most recent HES (1995/96) allow to construct poverty estimates by the *direct calorie intake* method. Following this approach, one may identify several layers among the poor. BBS, for instance, considers two extreme poverty lines: one corresponds to 1805 calories per day per person (i.e., about 85 per cent of the absolute poverty line of 2122 calories per day per person); the other line corresponds to 1600 calories per day per person (i.e., about 75 per cent of the absolute poverty line). Despite the arbitrariness involved in ascertaining the two extreme poverty lines, it relays an alarming message.

The proportion of population failing to meet the 1805 calorie norm in rural area is as high as 24 per cent; the matched figure for urban area is still higher (27 per cent). Even if one takes 1600 calories per day person as the cut-off mark for severest poverty, the proportion of rural population living below that line would be 14 per cent (15 per cent for urban area). The weight of extreme deprivation in the aggregate poverty is alarmingly high. Thus, as a proportion of total rural poor in 1995/96, rural extreme poor population was as high as 52 per cent; again, rather strikingly, the corresponding weight for urban area is even higher (57 per cent).

The same trend emerges when one considers income/ expenditure survey data. A BIDS survey of a nationally representative rural sample of 62 villages provides a recent estimate of rural poverty measured in the income space.6 It reveals that about 52 per cent of the rural population lived in absolute poverty in 1994. This poor population is divided into two distinct groups-moderate poor (29 per cent) and extreme poor (23 per cent). In other words, in 1994 about 44 per cent of the poor population fell into the category of the poorest and most vulnerable.

The above picture of wide gap between the poor and the poorest is also confirmed by the perception survey. According to the self-categorization of the respondents of the BIDS survey, in 1994 the number of rural households who lived in "chronic deficit" throughout the year was 19 per cent, while households facing "occasional deficit" stood at 32 per cent. This again shows

[5] There is growing body of literature on the issue. For a Bangladesh-specific survey, see Ravallion and Sen (1996).

[6] Unless otherwise mentioned, the rural estimates of indicators presented in the paper relate to the 62-village data generated by the Analysis of Poverty Trends (APT) Project of BIDS. Such data are collected for three points in time, Le., 1987, 1989/90, and 1994. We have used the 1994 survey data in this paper.

that the overall weight of extreme poor in total rural poor population is considerably high (37 per cent).

Chronic and transient extreme poverty

Differentiation within the poor does not imply any lack of fluctuation in poverty. Panel data generated for other countries reveal considerable movement in and out of poverty, particularly between extreme and moderate poverty. [7] Bangladesh is no exception to this, as indicated by the 62-village panel data generated by the Analysis of Poverty Trends (APT) project of BIDS. To illustrate the point, one may refer to the movement of households in poverty between 1987/88 and 1989/90 (annex table 1). Three aspects merit attention here.

First, 42 per cent of the households classified as extreme poor in 1987/88 continued to persist in extreme poverty during 1989/90. They constitute 10 per cent of rural households in 1989/90, and represent the segment of *chronically* extreme poor with little chance to escape from even the net of extreme poverty.

Second, about a third of the households who were termed as moderate poor during the first survey slipped into extreme poverty by the second survey. Such slippage is often viewed as being stochastic in nature because of their association with temporary fluctuations in crop output under rainfed agriculture; but, this may not be true in other cases. The slippage may turn out to be of longer-term nature, as in the event of sudden death of a principal earning member, or some unanticipated crisis events involving damage of bullock power, ownership disputes leading to . litigation, high social ceremony expenditures (raising dowry for daughter's marriage, for instance) or (frequently) health hazard-related risks which impose substantial coping costs not only on the poor, but also on the vulnerable non-poor.[8]

Third, the panel data show the considerable presence of transient extreme poverty: some 28 per cent of the extreme poor graduated to moderate poverty and another 30 per cent were actually able to cross-- at least for the given spell-- over the poverty line. This is an antidote to the pessimism often articulated in the development policy discourse regarding the alleged inability of "development" to reach out to people living in extreme poverty. But, again, the fact of movement in and out of extreme poverty should be calibrated by the fact that such movement itself may have been measured in narrowly defined space, i.e., current income (which is susceptible to annual fluctuation in the agrarian economy's context). Had we used more durable

[7] For a recent summary of cross-country panel data, see Baulch (1996).

[8] The issue is discussed elsewhere in some details. See, Rahman (1995), Sen (1996).

indicator of permanent income, the observed fluctuation would have been much less.[9] In short, the fact of movement in and out of extreme poverty should not discount the principal issue at stake, to wit, "development" must begin with the poorest. The latter should be accorded first priority .

Reducing extreme poverty is *good for subsequent growth*

The concern for the poorest is not just an issue of social justice or of moral judgment (though separation of ethics from economics was inconceivable in the days of classical political economy). Recent advances in development theory suggest that a better distribution is also *instrumentally important* to achieve higher economic growth, faster rate of poverty reduction, and higher social capital.[10] A pro-poor distribution policy does not advocate income transfer: it strives to transform the poor from passive recipients of aid into active agents of high-quality growth. By "distribution" one is here implying the distribution of physical capital (recall land reform in countries of the East Asian miracle, for instance) as well as human capital (broad-based access to education, health, and nutrition). This is the consensus, the meeting point of literature developed in connection with "new growth theory" and human development. [11]

Should the differentiation argument be stretched so far?

A legitimate question can spring up here: is too much emphasis given to the issue of reaching out to the extreme poor, given that the ultimate purpose is to target health care and prevention to poor and vulnerable populations in general? After all, today's moderate poor may turn out to be tomorrow's extreme poor, because of health hazard or otherwise unanticipated events. There is some truth in it, but the point should not be overstretched. While both moderate poor and vulnerable non-poor may suffer from health-related shocks, the burden of coping is disproportionately high for the poorest. The magnitude of the income erosion threat arising out of unanticipated crisis accounts for 27 per cent of extreme poor households income compared with 22 per cent for the moderate poor and 13 per cent as applied to non-poor (Rahman 1996). The vulnerability in raising crisis coping money is also much greater in case of the poorest than

[9] When measured along asset-scale (such as land), the movement in and out of extreme poverty becomes much more restrictive.

[10] Social capital-- a term coined by Robert Putnam-- is increasingly being recognised as a catalyst of good governance and social development. The relevant point to note here is that it is difficult to achieve a higher level of social capital in a society where inequality is acute and a substantial number of extreme poor exist on the verge of social exclusion.

[11] For a recent review, see Ravallion (1996).

other groups, the former being cut -off from the option of soft credit mobilisation and deprived of the advantage of possessing some tangible assets (as in the case of moderate and non-poor).

Again, this is not to say that programme interventions (such as in the area of health) currently in existence for the moderate _d vulnerable non-poor are to be ignored in view of the recent emphasis on the extreme poor. This would be tantamount to saying that--to borrow an example at hand-- microcredit a la Grameen should be abandoned, or radically recast, given its exclusion of the extreme poor. But we should be worrying about the fact of systemic exclusion and try to do something specially for the left-outs by way of providing better access to capital, both physical and human. Such intervention is needed to "correct" the credit market failure which remains insensitive to the need of the extreme poor, and would be perfectly consistent with pareto improvement considerations. As applied to health, therefore, the concern for the poorest should be seen as stimulating special efforts *additional* to the task of re-vitalising the unionbased health services accessible to the total population.

The preceding discussion points to *the importance of recognising the case for extreme poverty as an area of specific analytical focus (as distinct from the general concern about poverty and deprivation). The burden of emerging numbers who live chronically in extreme poverty is too large to ignore it.* The moot question is: how to visibilise the poorest and most vulnerable in the arena of public policy? How to devise indicators that can identify them with relative ease, but at the same time will ensure substantial coverage of extreme poverty? To these issues we shall now turn.

II. Targeting principles underlying indicator choice

Before we proceed to discuss the indicators and their estimates for rural and urban Bangladesh, a few remarks on the methodological issues relating to the choice of indicators would be in order.

Some basic principles of targeting which merit consideration in devising indicators are mentioned below.

The indicator should aim at capturing broad *group* characteristics (group poverty) rather than focussing on *individual* targeting (Lipton 1996). Poverty analysis does not allow to select *individuals* for programme benefits; if that is done--as in the case of some anti-poverty programs such as India's IRDP or Sri Lanka's Janasaviya-- it gives incentives to provide wrong information, much higher proportion of leakage, but more importantly stimulate changes in behaviour tending to reduce labour income in order to achieve programme benefits (Besley and Kanbur 1993). Such problems become even more difficult when it comes to demarcating extreme poor from moderate poor. But if one can establish that households with particular characteristics are likely to be (say, extreme) poor, then one can target anti-poverty projects on these groups (indicator targeting), or on commodities or employment that they are likely to select (self-targeting, as for instance, in Food-for-Works and Vulnerable Group Development schemes in Bangladesh). Since health care is not a product which is likely to self-select, the second option for targeting may be ruled out. [12]

Cost-effectiveness consideration is another reason why one should prefer group targeting to individual targeting. To steer project benefits towards individuals would require prohibitively costly nation-wide surveys over and above the problem of under-reporting of income/ consumption. *In short, the central principle is to identify groups (along with the characteristics of persons in such groups) with high probability of being in poverty, so that projects, programs and policies may be cost-effectively targeted to groups with severe poverty, rather than others.*

Note that the concept of "group targeting" includes not only household parameters, but also characteristics of geographic region where they are located. The concept is also sensitive to seasonal variation whereby particular periods display high intensity of distress. Targeting regionally under imperfect information is to be termed as best practice, especially from the vantage point of minimisation of severe poverty (provided such zones of distress are known

[12] This is not to say that there is no scope for bridging between a public health programme targeted specifically at the extreme poor and other rural works type programs that tend to self-select them. There can be considerable informational efficiency in tying the beneficiaries of both type of programs (more on this in the last section of the paper).

beforehand) and studies show that errors of targeting are much less than in case of individual targeting. The problem is that our knowledge about the variation in poverty rates across space in Bangladesh is still very limited to be a firm guide in practice, despite some recent attempts in doing that (GoB 1991; WFP 1996; Ravallion and Wodon 1997). Our approach would be one of combining insights derived frOlJl household-characteristics based poverty profile as well as analysis of the regional (and seasonal) dimensions to poverty.

Another important principle is that the indicator(s) for targeting should be not only effective in *minimising leakage* to non-poor (or richer among the poor, for instance), but also in ensuring *broad coverage* of the target group (in our case, reaching the poorest with health care). \3 The first aspect, which focusses on the *targeting ability* (how sensitive is the given indicator in identifying the target group?), may be viewed as the necessary condition in order to be selected as a targeting indicator. The second aspect, which focuses on the *representativeness* issue (how effective is the indicator to reach the maximum numbers of the target group?), may be termed as the sufficient condition. Certain indicators may be good from the first point of view, but fail to meet the second criteria, being too restrictive.14 The reverse example is also abound. Some of these examples are discussed below with actual poverty data.

[13] This is analogous to the distinction between Type-I and Type-II errors referred to in the targeting literature (see, for instance, Stewert and Cornia 1994.

[14] Consider the following example. Suppose, there exist two indicators with identical probability of locating the extreme poor (i.e., both the indicators give similar incidence of extreme poverty). However, following A, one can reach at most 10% of the extreme poor, while using B, one can cover at least 40%. Clearly, B is to be preferred to A for indicator targeting.

III. Identifying the poorest and most vulnerable

Our method of investigation proceeds as follows. We start from an initial choice set of indicators, examine their *targeting ability* to predict the incidence of extreme poverty (necessary condition), assess their *representativeness* (sufficient condition). After giving due attention to practical considerations of easy implementability, we finally come up with the preferred variant of core indicators.

Some indicators are expressive of extreme poverty, but remain restrictive to only a small part of it

Indicators such as possession of minimum clothes, access to "safe"[15] drinking water and sanitation fall under this category (Tables 1 through 4). These indicators meet the first criteria of targeting ability, but not the second criteria, i.e., cover only a small part of the target population. For instance, 57 per cent of rural population without a minimum of two clothes are extreme poor compared with 24 per cent for those who have such access. But, the indicator covers only 4 per cent of total population (and only 8 per cent of total extreme poor). The same applies to the indicator of possession of warm clothes. Access to drinking water varies by poverty status; the incidence of extreme poverty is higher for those who do not have access to tube-well water compared with the category who have such access (34 vis-a-vis 26 per cent). Again, the indicator is very limited in scope, addressing only 4 per cent of rural inhabitants. The relative merit of sanitation as poverty-sensitive indicator is better on this score: considerably higher per cent of the under 10 populations using open space fall under the category of extreme poverty. The incidence of extreme poverty is 35 per cent in this case compared with only 10 per cent recorded for the sanitary/slab category. Users of open space constitute as high as 79 per cent of extreme poor. Nevertheless, the indicator has obvious disadvantage; use of sanitary facility is not just a question of income status, but also one of the attitudes influencing the non-poor as well. The latter explains why only 22 per cent of the rural households use the sanitary facility even though the share of non-poor is roughly 50 per cent. In short, targeting by this indicator will result in considerable leakage to the non-poor and moderate poor.

[15] The safety of "tubewell" water remains highly suspect, however. The case of arsenic contamination is a recent addition to the safety concerns over the tubewell water (see, Yokota et al 1996).

Table 1: Estimates of poverty in rural area by possession of minimum two clothes

Possession status	% of population in the category	Incidence of poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Possess minimum clothes	96.5	24.0	27.8	92.0	96.6
Do not possess minimum clothes	3.5	57.2	27.2	8.0	3.4

Table 2: Estimates of poverty in rural area by possession of warm clothes

Possession of warm clothes	% of population in the category	Incidence of poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Possess warm clothes	93.3	22.7	27.8	84.2	93.4
Do not possess warm clothes	6.7	59.7	27.6	15.8	6.6

Table 3: Estimates of poverty in rural area by sources of drinking water

Sources of drinking water	% of households in the category	Incidence of poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Tubewell	96.2	26.1	28.3	96.8	97.6
Others	3.8	34.4	28.1	3.2	2.4

Table 4: Estimates of poverty in rural area by toilet facilities for under 10 children

Toilet facilities	% of households in the category	Incidence of Poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Sanitary/Slab	22.4	9.8	17.0	4.7	8.2
Katchha	52.4	26.4	31.9	16.4	19.5
Open space	25.2	35.1	31.7	79.3	72.1

The number, however, should not be the ultimate criteria for inclusion in the list of core indicators. Some indicators may be limited in coverage but may speak of additional dimensions ofvu1nerability, such as gender, caste and ethnicity. We have some data on gender to illustrate the point. Female- headed households display much higher incidence of extreme poverty compared to their male-headed counterparts (37 as opposed 22 per cent). However, the overall weight of such households is quite low--only 5 percent--which bars its widespread application (Table 5). However, the number should not detract our attention here from the substantive point of gender experience of poverty and vulnerability.

Table 5: Estimates of poverty in rural area by gender status of household head

Gender status	%of households in the category	Incidence of poverty	
		Extreme	Moderate
Female-headed	5.0	37.3	62.7
Male-headed	95.0	21.8	778.2

Some indicators are analytically relevant as determinant of poverty, but less sensitive to the state of extreme poverty

Indicators such as literacy and land tenure fall under this type. While there is no denying that level of educational attainment matters in determining long-term poverty, it does not satisfy the first criteria of targeting ability. It is true that the incidence of extreme poverty is higher for the illiterate group, but so is the incidence of moderate poverty (Table 6). This is expected given high level of adult illiteracy in general. The same applies to the targeting ability of by tenancy status. The variation among the tenure groups is less pronounced (Table 7). These two indicators can, therefore, be dropped for the purpose of identification of the poorest.

Table 6: Estimates of poverty in rural area by education of household head

Education	Incidence of poverty	
	Extreme	Moderate
Illiterate	32.1	34.2
Attended Primary	16.6	29.9
Attended Secondary	10.8	22.5
sse (Second. school certif.)	8.8	1.5
HSe + (Higher sec. school certificate)	0.0	12.3

Table 7: Estimates of poverty in rural area by tenancy status

Tenancy status	Incidence of poverty	
	Extreme	Moderate
Non-cultivator	38.5	34.2
Pure tenant	24.6	40.7
Tenant-owner	22.8	30.9
Owner-tenant	13.3	34.4
Pure owner	12.7	22.4

Some indicators capture the poorest successfully, albeit, allow some leakage

Three indicators stand out prominently: land, housing and occupation (Tables 8 through 11). Targeting functionally landless households (up to 0.5 acre) for poor-targeting has by now been established as a long tradition, particularly in the context of micro credit. Indeed, the functionally landless category contains 71 per cent of the rural households in extreme poverty. But, then, not all households within this land-size group can be termed as extreme poor; about 57 per cent of moderate poor households also belong to this category (Table 8). There are non-poor households in the smaller land-size groups as well (Ravallion and Sen 1994). In short, land alone will not suffice for the targeting purpose.

Table 8: Estimates of poverty in rural area by landownership

Landownership (acres)	%of households in the category	Incidence of poverty		% of poor households	
		Extreme	Moderate	Extreme	Moderate
<.50	48.6	38.3	33.3	71.0	57.2
.50 – 1.49	21.4	23.1	31.7	18.8	23.9
1.50 – 2.49	12.2	14.3	23.0	6.7	9.9
2.50 - 4.99	11.4	5.3	17.3	2.3	7.0
5.00+	6.3	4.8	8.4	1.1	1.9
Total	**100.0**	**26.2**	**28.3**	**100.0**	**100.0**

Table 9: Estimates of poverty by different housing categories in rural area

Housing category	%of households in the category	Incidence of poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Jhupry	1.6	63.6	27.3	4.1	1.6
One room thatch	23.5	44.0	33.7	39.4	28.0
1 + room thatch	13.1	34.1	35.8	17.1	16.7
Tin made house	54.3	17.6	25.5	36.5	48.9
Pucca house	7.5	10.5	18.9	2.9	4.8

Table 10: Estimates of poverty in rural area by occupation

Major occupation	%of households in the category	Incidence of poverty		% of poor people	
		Extreme	Moderate	Extreme	Moderate
Cultivator	41.6	20.6	24.4	33.2	39.5
Agricultural wage labour	18.5	46.7	40.2	37.3	22.8
Non-agricultural wage	2.7	24.3	34.6	2.6	2.2
labour	7.0	26.5	38.5	7.3	6.2
Rural industry, informal service, etc.	10.4	9.3	29.6	4.0	12.4
Trade	4.5	22.3	34.0	4.9	5.1
Transport	1.8	36.5	34.6	2.6	3.0
Construction	9.5	4.7	14.7	2.0	4.8
Others	5.8	27.6	19.7	6.1	4.0

Table 11: **Trend in poverty by major occupational category, 1983/84 - 1991/92**

Major Occupation	% of poor population		
	1983/84	1988/89	1991/92
Owner Farmer	25.20	19.19	24.06
Tenant Farmer	53.20	36.47	37.33
Agricultural Labourer	62.50	66.82	71.04
Trader	43.73	37.63	41.44
Non-agricultural Labourer	58.67	40.73	50.42
Formal sector Service-holder	32.52	17.63	13.77
Rural Industry Worker	52.37	47.94	40.42
Fisherman	43.36	35.25	60.07
Others	52.95	56.86	51.73

Source: Sen (1997)

Housing is another indicator which is strongly expressive of extreme poverty. The incidence of extreme poverty residing in the lowest two categories on the housing scale ranges from 44 to 63 per cent, and together they account for about 44 per cent of extreme poor households (Table 9). However, this is also not without problems: about 37 per cent of extreme poor households live in the tin category. [16]

The indicator of occupation deserves special mention here. The incidence of extreme poverty is highest in case of agricultural wage labor. According to the BIDS survey, 47 per cent of agricultural wage labourers fall under the extreme poor category (Table 10). In terms of poverty ranking, they are followed by construction (37%), rural industry and informal service (27%), non-agricultural wage labourer (24%), transport workers (22 %). The observation relating to the highest incidence of poverty among agricultural labourers is also vindicated by Household Expenditure Survey (HES) data generated by the Bangladesh Bureau of Statistics (BBS). According to the latter source which uses consumption data, the incidence of absolute poverty

[16] It is possible that tins obtained through relief under various disaster mitigating and housing programs contributed to this anomalous outcome.

(extreme and moderate taken together) in the agricultural labour group was 71 per cent in 1991/92 (Table 11). This may be compared with the 87 per cent combined figure derived under the BIDS survey using income data. In terms of overall poverty ranking in 1991/92, agricultural labourers are followed by fishermen and non-agricultural labourers, having an headcount index in excess of 50 per cent. On the other end of the spectrum, the lowest poverty is reported by the formal sector service holders (14%), owner farmers (24%) and tenant farmers (37%). Rural petty traders and industrial owners/ workers occupy an intermediate position. The poverty ranking (particularly for the highest and lowest poverty groups) varies little with the change in the survey year, implying the stability of the indicator under consideration.

Targeting by occupation also meets the requirement of representativeness. The group of agricultural labourers not only displays the highest probability of being in poverty, it also contains 37 per cent of the extreme poor. As such, the group constitutes about a fifth of the total rural households.

Since no single indicator (however efficient) contains sufficient information, it is better to combine the best among the lot

The preceding discussion shows that the poorest on the land scale reside in the functionally landless category; the poorest on the housing scale are located in the Jhupri and one-room thatch categories; and, the poorest on the occupation scale relate to the category of agricultural wage labor. It seems, therefore, reasonable to combine information contained in land, housing and occupation indicators (Tables 12 through 15). The idea is to find the common set that is present in the poorest category on all three scales. This helps to identify the poorest of the poor.

Consider the combination of housing and occupation. This can be analyzed from various angles. 60 per cent of total agricultural wage labor households in the BIDS sample reside in the two lowest housing categories (Table 12). The share of agricultural wage labourers among the dwellers of various housing categories monotonically declines with housing status, as one proceeds from Jhupri (55%), one-room thatch (43%), 1+ thatch (21%), to tin house (8%), and tully/pucca house (2%) (Table 13). Clearly, the error of targeting can be further minimised by combining housing and occupation. This is not only an issue of locating the extreme poor in quantitative terms, but also one of identifying the most vulnerable. There are differences in poverty level even within the agricultural wage labour. Thus, 75 per cent of agricultural labourers living in the jhupri type correspond to extreme poor compared with 52-54 per cent observed for the two thatch categories. Such gradations within wage labourers can only be captured by applying at the same time housing and occupation-based indicators.

The same applies when information on landownership and housing is combined. As is known, microcredit programs in Bangladesh follow mainly the criteria of landownership (defmed as owning up to 0.5 acre of land, otherwise termed *asfunctionally landless).* It has been observed that there is a considerable variation in poverty even within this land-size group--a feature ignored by many of the microcreqit programs. As a result, these programs may become restricted to the richer sections among the poor.17 Data presented in Tables 14 and 15 illustrate that possibility. The functionally landless households do not share the same degree of deprivation. The poorest among them live at the bottom end of the housing scale: the lowest two housing categories contain about 40 per cent of the functionally landless households and 52 per cent of the extreme poor living within this land-size group.

Similar results can be derived when information on landownership and occupation is considered together (Table 16). For the functionally landless households, variation in the incidence of extreme poverty measured on the occupation scale is considerable. As before, the wage labor households stand out as the most poverty-striken category. While there is little difference in the extreme poverty rate between cultivator and wage labor households, those who could manage to adopt trade and services are substantially better off (26-36 per cent vis-a-vis 54-58 per cent). [18]

[17] Hossain (1988), for instance, found that only 14 per cent of Grameen households belonged to the agricultural wage labor category, although the targeting criteria of 0.5 acre was strictly followed.

[18] The marginal difference in the poverty rates between cultivators and wage labor within the functionally landless category suggests very limited role that the tenancy market has for these households in moderating the inequalitarian consequences of highly skewed land ownership structure.

Table 12: Distribution of agricultural labor households by type of housing

Type of housing	% of agricultural labourer households
Jhupri	5.0
1 room thatch	54.3
1 + room thatch	15.2
Tin house	24.7
Pucca/Tully house	0.8
Total	**100.0**

Table 13: Incidence of poverty among agricultural labor households by housing category

Housing categories	% of agricultural labourer households in each housing category	Incidence of poverty among agricultural labourers	
		Extreme	Moderate
Jhupri	54.5	75.0	25.0
1 room thatch	42.7	54.0	35.0
I + room thatch	21.4	51.4	43.2
Tin house	8.4	50.0	31.7
Pucca house	1.8	-	100.0
Tully house	2.6	-	-
Total	**18.5**	**46.7**	**40.2**

Table 14: Estimates of poverty by type of housing among rural landless (<.50 acre of land) households

Type of housing	Incidence of poverty		% of poor households	
	Extreme	Moderate	Extreme	Moderate
Jhupri	70.0	25.0	5.7	2.3
1 room thatch	48.0	34.0	46.1	37.6
1 + Room thatch	40.0	42.0	15.1	18.3
Tin house	29.0	29.0	31.0	36.2
Pucca huse	-	37.5	-	1.4
Tully house	25.0	45.0	2.0	4.2
TOTAL	38.3	33.3	100.0	100.0

Table 15: Distribution of households by type of housing and landownership

(%)

Housing	Landownership (acre)				
	<.50	.50-1.49	1.50-2.49	2.50-4.99	5.00+
Jhupri	3.0	0.3	-	-	-
1 room thatch	37.0	16.7	8.1	8.0	2.4
1 + room thatch	14.6	14.6	11.2	10.7	6.0
Tin house	41.0	63.7	72.0	65.3	72.3
Pucca house	1.2	1.4	6.8	12.7	17.0
Tully house	3.1	3.2	1.9	3.3	2.3
Total	**100.0 (639)**	**100.0 (281)**	**100.0 (161)**	**100.0 (150)**	**100.0 (83)**

Note: Figures in parentheses are absolute number of households recorded in the sample.

Table 16 : Incidence of extreme poverty by occupation controlling landholding size, 1989-90

(per cent of population)

I Occupation	Landholding size (acres)			
	Less than 0.50	0.5 - 2.49	2.5 - 4.99	5.00 and above
Cultivator	54.1	18.9	7.5	3.0
Wage labour	57.9	39.9	*	*
Traders	25.6	13.6	12.2	14.6
Service	35.8	20.5	17.1	16.4
Others	49.5	25.5	21.8	4.3

Source: Hossain (1995)

The summary information presented in tables 12 through 16 show that there would be considerable targeting gains if one combines the poorest categories as per the three key indicators. *In short, the prospective poorest clientele would be agricultural labourers residing in jhupri or single structure thatch with land owned up to 0.5 acre.* [19]

Locating the poorest in the poor regions

While we favour the set of three indicators--Land, housing and occupation-- this should not create the impression that other characteristics such as region do not matter. Indeed, the emphasis should be to prioritize the poorest areas first and then apply the household level core indicators. Judged by the indicator of infrastructure alone, considerable differences in poverty rates are noticeable (Table 17). For instance, the incidence of extreme poverty is 25 per cent in the underdeveloped setting compared with 18 per cent in the developed setting. Other factors may be taken into consideration in identifying the poorest regions.

[19] This will, of course, not be true for urban areas (see, Tables 18 through 20).

Table 17: Estimates of poverty in rural area by infrastructure

	Incidence of poverty	
	Extreme	Moderate
With Road and electricity	17.5	26.6
With road and without electricity	24.2	26.9
Without road and without electricity	24.8	32.4

The 1991 Task Force Report on poverty alleviation attempted to take a closer look at till question by actually identifying 100 "economically most depressed" upazilla (see, the distress zone map). The task force considered factors, namely, (i) land area per person, (ii) proportion oj land under broadcast aus and deep water aman varieties of paddy[2O], as a measure of low productivity due to depth of flooding and cropping pattern, (Hi) proportion of irrigated area a measure of the capacity to adopt the modem agricultural technology, (iv) the proportion of functionally landless households, and (v) the proportion of population engaged in non-fami activity. Similar exercise has been undertaken by the Wodd Food Programme (WFP) which is using a distress zone map in implementing food-assisted programs throughout the country.

The upshot of the above is to point out that there would be further gains in fine tuning the extreme poor oriented programs if one could combine household-based indicator targeting with regional targeting both in design and implementation.

[20] Aus and Arnan are the two varieties of rice paddy grown in Bangladesh. The term "broadcast" refers to the method of calculation while "deep water" refers to the level of water in the field where the particular type of rice paddy is cultivated.

IV. Targeting the urban extreme poor

The issue of urban poverty is studied in lesser details, mainly due to lack of data. Nevertheless, information presented in Tables 18 through 20 may provide some insights. First, the incidence of extreme poverty is generally much higher in slums and squatters than in other parts, which is intuitive. The difference is stark: 45 per cent in slums as opposed to only 7 per cent in non-slum areas. This suggests that area-based (regional! cluster) targeting would be useful in reaching the urban extreme poor. Second, cluster-based targeting may be supplemented by other differentiation characteristics, based on household-based indicators. The validity of occupation as indicator is upheld by the urban data as well. The manual day labourer category displays the highest incidence of extreme poverty (32%) compared with 17 per cent for those engaged in petty business and 9 per cent for the rentier class (Table 20). The incidence of extreme poverty is also higher among families with younger household heads, and among less educated; but, these are difficult indicators to administer. The same applies to the potential indicator of length of stay in the city. The incidence of extreme poverty is highest for the newly settled migrants and, rather strikingly, for the earliest migrants, However, it is difficult to objectively verify the length of stay in the city which bars its application as extreme-poor identifying indicator.

V. III-health and extreme poverty: a close correlation?

Information presented in table 21 may be seen as a validation exercise for indicators which have entered our final choice list. Identification of extreme poor become an important health policy objective if it could be shown that it is the poorest who suffer most in tenns of ill-health. Admittedly, we are considering here only one of the many possible indicators, i.e., acute morbidity observed over the past month. Nevertheless, the lessons may be instructive.

As the table shows, the morbidity rate is much higher among agricultural wage and construction labourers on the occupation scale (17-18 per cent vis-a-vis 12-15 per cent for cultivator and other non-agricultural groups). The only exception is households located in fishing, livestock and rural industry with significant presence of the gender dimension. It is also highest among the lowest two categories on the housing scale. The morbidity rate is as high as 32 per cent for those living in the jhupri category, followed by 16-17 per cent in the thatch category, in contrast to only 1115 per cent observed in case oftin and pucca categories. Similarly, the morbidity rate is highest for the functionally landless (15 per cent vis-a-vis 11 per cent in the land-rich group). The latter evidence is also corroborated by the Health and Demographic Survey (HDS) carried out by BBS (see, BBS 1996).

VI. Process issues

How to avoid the risk of bureaucratic targeting

Implementation of core indicators is also an important process issue, having implications for targeting. It is inadequate to only pin-point a set of core indicators for identifying the poorest. Even the most effective set of indicators may have little effect on the status of the extreme poor if the process of administering is left to the bureaucratic discretion of the programme managers. This is particularly true in case of indicator targeting through means-testing as opposed to indicator targeting via self-selection. The risks of leakage thus cannot be avoided in case of bureaucratic targeting, as evidenced from the recent experience of Food-for-Education (BIDS 1997). Such risks can only be minimized through local consultation with community and NGOs, a task that can be institutionally facilitated by the presence of effective local government.

Tying with other self-targeted programs: a second-best choice

While the option of minimizing risks of leakage and infiltration of the non-target group via consultation with community, NGOs and local government functionaries need to be explored, some intermediate solutions can still be thought of. This is important particularly in view of the urgency of the problem under consideration.

As is known, the existing local government machinery is far short of the task of "managing development" at the grass roots and, despite some recent attempts to reinvigorate the concerns' for local government (Bill on *Gram Sarkar* or Village Government, for instance), the actual devolution of power to lower tiers of government is restricted to the minimum. Indeed, if anything, the official discourse on local government is disproportionately more biased towards the electoral issues (such as whether members should be elected via direct vote or selected by the upper tier, or for that matter, what should be the gender composition of these members, etc) and much less with the task of working out the taxing, spending and jurisdictional power of the local bodies.[21]

In the above backdrop it is unlikely that local government will soon become an efficient organ of power coordinating! managing development at the grass roots. At least, this is going to be the likely scenario in the short to medium term. In the absence of such effective overseeing machinery in place it is difficult to see how the risks of bureaucratic targeting and leakage can

[21] This is comparable to a situation that an observer of local government dynamics in Bangladesh aptly characterized as "too much of democracy, too little of power".

be avoided (even if we arrive at a consensus on the targeting indicators along the line suggested in the present paper). The question that springs up is: is there any alternative?

One way out is to locate potential health beneficiaries from the extreme poor group in the programs which are in any case self-targeted to the need of the poorest. A number of evaluations have proven the case beyond doubt that programs such as Food- for- Works (FFW) and Vulnerable Group Development (VGD) are targeted towards the poorest.22 This can be verified by comparing the relative weight of the extreme poor households in these programs with the general weight of the extreme poor in the overall rural distribution. Thus, the bottom three expenditure groups account for 22 per cent of rural households (roughly corresponding to the group of the extreme poor). These groups display an overwhelming presence in FFW and VGD programs: 72 and 92 per cent, respectively (Sen 1997).

Note that the average expenditure in each of the expenditure groups in FFW and VGD distribution is lower than the corresponding figure in the overall rural distribution. This implies that, even within the same expenditure interval, these programs targets the less well-off. Between the two programs, the VGD beneficiaries stand out to be the most disadvantaged in terms of poverty ranking. A major reason for targeting success may lie in the nature of self-targeting (associated with characteristics such as inferior quality wheat, hard manual labor, social stigma, and gender criteria such as being "abandoned" female headed households) that often characterize these programs.23

What is the extent of coverage of the extreme poor by these programs? While hard data are yet to be compiled, it appears that some 5-10 per cent of rural households have already been brought under their ambit. Another important facet of these programs is their country-wide coverage and a system of monitoring which, although not without deficiencies, is able to provide important buffer to the extreme poor in times of severe economic stress,24 The above-mentioned proportion of rural households translates into a substantial number of poor households, and may represent a convenient entry point into the arena of pro-poor health intervention in rural areas. All it requires is a mechanism of information exchange between *FFWNGD* and health workers, though exact institutional modalities need to be worked out further.

[22] For a recent review, see Sen (1997).

[23] It is a cause for concern that allocations for these programs (FFW in particular) have been declining in absolute terms in recent times-- from 716 to 640 thousand tons over 1992-96. Such negative developments will have adverse implications for the extreme poor.

[24] These programs still appear to have important shortcomings, being not able to cater the extreme poor during the time of the most acute need in a year, and in the most backwar4 of places (see, Sen 1997).

VII. Conclusion

The paper premises on the emerging evidence that the poor are not homogeneous and a sharp division exists among the poor, by age, sex, ethnicity, region, occupation, food, shelter, CLOTHING, land, education, health, networking capacity, even FREEDOM. It argues that the poorest warrant specific analytical and *policy* focus. Policies that benefit the non-poor and moderate poor may not necessarily favour the extreme poor. The gap between the poor and the poorest need to be minimized in order to facilitate broad-based human development. Note that it is this concern which underlies the recent UNDP effort to bring to the fore the case of *human poverty* as distinct from the concern for human development and broad-based growth.25The task of identifying (targeting) the extreme poor is, however, far from being straightforward. It is even more difficult to design an implementable program which will naturally cater to the health needs of the poorest. The present paper attempts to address the targeting question.

Targeting is usually done under imperfect! incomplete information since generation of full information (such as via prior income/ expenditure surveys) is prohibitively costly. The paper, therefore, attempts to devise extreme-poor sensitive indicators by emphasizing on broad *group* characteristics rather than *individual* targeting. Another important principle is that the indicator(s) for targeting should be not only effective in *minimizing leakage* to non-poor (or richer among the poor, for instance), but also in ensuring *broad coverage* of the target group (in our case, reaching the poorest with health care). The first aspect, which focusses on the *targeting ability* (how sensitive is the given indicator in identifying the target group?), may be viewed as the necessary condition in order to be selected as a targeting indicator. The second aspect, which focuses on' the *representativeness* issue (how effective is the indicator to reach the maximum numbers of the target group?), may be termed as the sufficient condition. Certain indicators may be good from the first point of view but fail to meet the second criteria, being too restrictive.

A particular result derived in the paper relates to the intuitive observation that since no single indicator (however efficient) contains sufficient information, it is better to combine the best among the lot. The paper experimented with a number of potential indicators ranging from clothing, access to safe drinking and sanitation, to literacy, and land tenure, but found them wanting in meeting either the necessary or the sufficient condition for targeting. Three indicators stood out prominently in the battery of tests that were done; they are: land, housing and occupation. All of them met the above two conditions of targeting. However, considered individually, they still allow some leakage which can be avoided if these criteria can be combined to identify the poorest of the poor. Packaging of indicators is important both from the vantage point of equity and from the consideration of given resource constraints. Following this approach, the paper goes on to identify the poorest of the poor in rural Bangladesh which are

[25] For an introduction to the theme, see Anand and Sen (1997).

likely to be *agricultural labourers residing in jhupri or single structure thatch with land owned up to 0.5 acre.* Indicators thus derived were validated by looking at the variation of morbidity rates by land, housing, and occupation. These indicators also meet the criteria of visibility: they are easy-to-capture.

While the household characteristics-based targeting favours the set of three indicators--Iand, housing and occupation-- this should not create the impression that other characteristics such as region and ethnicity do not matter. Indeed, the emphasis should be to prioritize the poorest areas (and ethnicities) first and then apply the household level core indicators.

The paper, then, argues that even the most effective set of indicators may have little effect on the status of the extreme poor if the process of administering is left to the bureaucratic discretion of the programme managers. This is particularly true in case of indicator targeting through meanstesting as opposed to indicator targeting via self-selection. The risks of leakage thus cannot be avoided in case of bureaucratic targeting. Such risks can only be minimized through local consultation with the community and NGOs, a task that can be institutionally facilitated by the presence of an effective local government.

However, the existing local government machinery is far short of the task of "managing development" at the grass roots and, despite some recent attempts to reinvigorate the concerns for local government (Bill on *Gram Sarkar* or Village Government, for instance), the actual devolution of power to lower tiers of government has been restricted to the minimum. Indeed, if anything, the official discourse on local government is disproportionately more biased towards the electoral issues and much less with the task of working out the taxing, spending and jurisdictional power of the local bodies. Given the relative absence of effective local government, the paper advocates for an "intermediate" solution, at least in the short to medium term.

The idea here is to locate potential health beneficiaries from the extreme poor group in the programs which are in any case self-targeted to the need of the poorest. A number of evaluations have proven the case beyond doubt that programs such as Food-for-Works (FFW) and Vulnerable Group Development (VGD) target to the poorest. Some 5-10 per cent of rural households have already been brought under their ambit. Another important facet of these programs is their country-wide coverage and a system of monitoring providing important buffer to the extreme poor in times of severe economic stress. As proportion of extreme poor, the overall coverage translates into a substantial number, and may represent a convenient entry point into the arena of pro-poor health intervention in rural areas. All it requires is a mechanism of information exchange between FFWNGD and health workers. Of course, this is easier said than done, but arguably it is easier to implement compared to a scheme of complex inter-ministry coordinations involved in first identifying the poorest and, then, cater to their health care needs.

Table 18: Estimates of poverty in urban area for selected socio-economic groups

Socio-economic groups	Percent of households in the category	Head count ratio (Per cent of population)		Income gap ratio (Per cent)	Foster et al. measure (Per cent)
		Moderate & Hardcore	Hardcore		
Resident of the household:					
Slums & squatters	33.3	80.4	45.4	29.1	8.52
Others	66.7	26.5	7.3	20.0	1.35
Gender (Household head):					
Male	95.2	41.8	18.3	25.8	3.78
Female	4.8	40.5	12.0	22.7	2.91
Age of the head of the household:					
Less than 30	19.2	56.9	35.1	29.2	5.78
31 - 40	39.7	37.7	14.1	23.6	2.74
41 - 54	26.2	36.7	15.3	25.2	3.45
55 & over	15.0	45.7	16.7	25.4	4.28
Family type:					
Nuclear	62.7	43.7	17.6	25.3	3.66
Extended	31.5	36.8	17.8	26.1	3.66
Joint	5.8	49.0	21.3	26.6	5.05
Length of stay in the city:					
Less than 10	11.8	56.6	24.7	24.2	4.54
10 - 19	28.3	36.2	15.9	23.4	5.20
20 - 29	23.0	35.1	14.1	26.0	3.69
30 & over	36.8	42.2	20.0	28.0	3.93

Source: Hossain and Afsar (1996).

Table 19: Estimates of poverty in urban area by the level of education of the household head and the spouse

Level of education	Percent of households in the category	Head count ratio (per cent of population)		Income gap ratio (Per cent)	Foster et al. measure (Per cent)
		Moderate & hardcore	Hardcore		
Household head education:					
No formal education	20.5	79.2	43.3	27.9	8.00
Up to primary	7.0	65.9	43.5	32.1	7.13
Up to secondary	25.7	50.9	19.2	24.2	4.04
College	20.7	25.2	5.9	24.6	2.17
University	26.2	15.5	3.7	14.1	0.43
Spouse's education:					
No formal schooling	39.0	66.2	31.7	27.2	6.53
Up to primary	7.3	71.4	38.4	28.7	6.96
Up to secondary	29.0	27.2	8.1	21.5	1.82
College	16.7	13.8	4.5	22.7	0.81
University	8.0	17.4	2.4	9.4	0.24

Source: Hossain and Afsar (1996).

Table 20: Estimates of poverty in urban area by occupation of the household head

Present occupation	Percent of households in the group	Head count ratio (per cent of population)		Income gap ratio (Per cent)	Foster et al. measure (Per cent)
		Moderate & Hardcore	Hardcore		
Labourer	17.2	65.4	32.1	30.4	7.40
Employee	28.0	62.0	21.6	22.1	2.84
Officer or manager	12.2	13.1	0.0	10.3	0.19
Business	30.8	36.5	16.8	26.9	3.67
Rentier	5.3	36.6	9.3	22.3	2.79
Unemployed	6.5	45.6	17.1	26.9	5.74
Occupation before migration:					
Agricultural labor	13.7	72.6	39.3	26.3	6.06
Cultivator	2.5	70.1	39.1	27.3	6.04
Non-farm worker	17.0	32.7	6.6	21.3	2.43
Unemployed	11.7	61.7	22.6	26.7	6.57
Student	25.7	20.2	5.6	21.7	1.42
Dependent	29.5	43.2	23.4	27.7	4.11

Source: Hossain and Afsar (1996).

Table 21: Morbidity rate by extreme poor identifying indicators (landownership, housing and occupation)

Extreme poor identifying indicators	Morbidity rate (Per 1000 population)
Household heads, occupation	
Cultivator	12.3
Agricultural labour	18.3
Fisheries/Livestock/Cottage industry	24.3
Trade	12.6
Transport	13.6
Construction	17.3
Self service	15.5
Salaried service	12.1
Non-agr. wage	12.7
Others	11.1
Housing	
Jhupri	31.6
1 Room hut	16.9
1 + Room hut	15.7
Tin house	11.1
Pucca house	15.4
Tully house	14.9
Land (acre)	
< .50	15.3
.51 - 1.49	13.0
1.50 - 2.49	12.1
2.50 - 4.99	10.5
5.00+	11.0

Source: Estimated from Primary APT Data of BIDS

Annex Tables

Table 1: Movement in and out of the **poverty, 1987-90**

Poverty level (1987-88)	Poverty level (1989-90)			Total
	Hard-core poor	Moderately poor	Non-poor	
'Hard core' poor	124 (41.9)	84 (28.4)	88 (29.7)	296 (24.3)
Moderately poor	140 (32.8)	130 (30.4)	157 (26.8)	427 (35.0)
Non-poor	79 (15.9)	119 (23.9)	299 (60.2)	497 (40.7)
Total	343 (28.1)	333 (27.3)	544 (44.6)	1220 (100.0)

Source: Sen (1995). Original- Estimated from Analysis of Poverty Trends (APT) Project Data of BIDS.

Note: 1. Income measures of poverty have been used for capturing movement in and out of poverty since expenditure module was not executed during the 1987-88 survey.
2. Figures in parentheses indicate row percentages except for the last column where they show column percentages.

Table 2: Estimation of poverty by types of housing among marginal landowners (0.50-1.49 acres)

Type of housing	Incidence of poverty		% of poor households	
	Extreme	Moderate	Extreme	Moderate
Jhupri	-	100.0	-	1.0
1 Room thatch	38.3	36.2	27.7	19.1
1 + Room thatch	34.1	29.3	21.5	13.5
Tin house	17.3	30.7	47.8	61.8
Pucca house	25.0	25.0	1.5	1.1
Tully house	11.1	33.3	1.5	3.4
Total	**23.1**	**31.7**	**100.0**	**100.0**

Table 3: Estimates of poverty by types of housing among small landowners (1.50-2.49 acres)

Type of housing	Incidence of poverty		% of poor households	
	Extreme	Moderate	Extreme	Moderate
Jhupri	-	-	-	-
1 Room thatch	23.1	23.1	13.0	8.1
1 + Room thatch	33.3	33.3	26.1	16.2
Tin house	11.2	24.1	56.5	75.7
Pucca/Tully house	9.1	-	4.3	-
Total	**14.3**	**23.0**	**100.0**	**100.0**

Table 4: Incidence of poverty and % of poor households by types of housing among medium landowners (2.50-4.99 acres)

Type of housing	Incidence of poverty		% of poor households	
	Extreme	Moderate	Extreme	Moderate
Jhupri	-	-	-	-
1 Room thatch				
1 + Room thatch	6.3	31.3	12.5	19.2
Tin house	4.1	17.3	50.0	65.4
Pucca house	5.3	-	12.5	-
TUllY house	20.0	20.0	12.5	3.8
Total	**5.3**	**17.3**	**100.0**	**100.0**

Table 5: Incidence of poverty and % of poor households by types of housing among large landowners (5.00 + acres)

Type of housing	Incidence of poverty		% of poor households	
	Extreme	Moderate	Extreme	Moderate
Jhupri	-	-	-	-
1 Room thatch	50.0	50.0	25.0	14.3
1 + Room thatch	20.0	-	25.0	-
Tin house	3.3	8.3	50.0	71.4
Pucca house	-	7.1	-	14.3
Tully house	-	-	-	-
Total	**4.8**	**8.4**	**100.0**	**100.0**

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