

The BPL Census and a Possible Alternative

Jean Drèze and Reetika Khera*

1. Introduction

There has been much debate about alternative methodologies for the “BPL Census”, aimed at identifying households for the purpose of social support (e.g. through the Public Distribution System).¹ These households are typically called “Below Poverty Line” households, hence the acronym BPL. But there is no necessity for the selection to be based on a poverty line. In fact, the current approach is not based on a poverty line, except possibly in the general sense that one has to “draw the line” somewhere, in some space, to separate selected households from other households. Due to the rather misleading reference to “poverty line” in the term “BPL households”, the question of how to identify these households tends to get mixed up with the distinct question of where and how to draw poverty lines. To delink the two issues, we shall refer to these households as the “Social Assistance Base” (SAB), and avoid the BPL acronym as far as possible.

This paper briefly explores the possibility of a simple method (we shall call it the “primary method”) for the identification of SAB households, which relies exclusively on basic exclusion and inclusion criteria. We begin by considering an “exclusion approach”, whereby *all* households are entitled to social support (e.g. ration cards) *except* if they meet pre-specified exclusion criteria. This can be described as a quasi-universal system, that is, universal except for a slab of privileged households.

It is arguable whether a fully universal system would be better than a quasi-universal system of this sort. On the one hand, there is no compelling reason to subsidise privileged

* Centre for Development Economics at the Delhi School of Economics. We are grateful to Sabina Alkire, Angus Deaton, Haris Gazdar, Aparna John, Sudha Narayanan, Abhijit Sen, Sanjeev Sharma and Madhura Swaminathan for helpful comments. Some of the proposals presented in this paper contributed to the deliberations that led to the preparation of the “N.C. Saxena Committee Report” (Government of India, 2009).

¹ See Hirway (2003), Sundaram (2003), Jain (2004), Alkire and Seth (2008), Khera (2008), Swaminathan (2008), Anon (2009), Bose (2009), Government of India (2009), Mander and Mehrotra (2009), among others.

households, and others stand to gain from their exclusion, in so far as resources are limited. On the other, universalism can help to create a broad, united stake in the integrity of social services such as the Public Distribution System (PDS). It can also be argued that, in practice, exclusion criteria are likely to be used against disadvantaged households. This note does not make a case for the quasi-universal approach. Instead, we explore its feasibility and implications. This is a useful step towards informed consideration of alternative approaches.

In the same spirit, we also explore an “inclusion approach”, whereby all households belonging to pre-specified “priority groups” are entitled to social support. This principle can be quite helpful in avoiding the pitfalls of targeting within priority groups, e.g. exclusion errors and the divisive effects of targeting. Its power, however, depends on the extent to which deprivation is associated with well-defined, observable household characteristics.

In the concluding sections of the paper, we consider four simple ways of combining exclusion and inclusion criteria to construct a SAB list (analogous to the current “BPL list”). A common feature of these different approaches is that every household can attribute its inclusion in, or exclusion from, the list to a single criterion. This would involve statements such as, “I am on the SAB list because I am landless”, or “I am not on the SAB list because I own a car”. This feature can be of great help in facilitating participatory verification of the BPL list, and in preventing fraud. In this respect, the “primary method” contrasts with the current scoring methods, discussed in the next section.

Our examination of this primary method should be regarded as exploratory and illustrative. The intention is to point to possible directions of further enquiry, including experimental applications of this method, rather than to present definite recommendations. Whether any convincing method of selecting SAB households actually exists is an open question.

Before we proceed, two clarifications are due. First, the issues discussed in this paper have little to do with the current debate on poverty lines and poverty ratios. Indeed, as should be clear from our opening remarks, there is no reason for the SAB list to “match” independent poverty estimates. For instance, in the context of the Public Distribution System, consideration must be given to the fact that the extent of nutritional deprivation in India is much wider than the incidence of poverty, based on official poverty lines. How “broad” the SAB list should be is certainly an important issue, but this issue cannot be resolved by conflating

it with the equally important, but separate, issue of how and where poverty lines should be drawn. Poverty estimation is one thing, and social support is another.

Second, the context of this enquiry is the government's determination to proceed with the next BPL Census, in anticipation of a possible expansion of the Public Distribution System. We do not take it for granted that a BPL Census should be conducted at all. Indeed, as discussed below, some of our findings can be read as reinforcing the case for universal as opposed to targeted social support. However, in so far as the arguments for and against universalization are linked with the issue of BPL Census methodology, the latter is still worth investigating. Further, even in a universal system, there is a case for "differentiated entitlements", with underprivileged households getting more. That would require some method of identifying underprivileged households, which is what this paper is about.

Following on this, we shall be particularly concerned with the danger of "exclusion errors", i.e. of leaving poor households out of the SAB list. This is because the PDS is supposed to ensure food security for all, and because the right to food is a basic right of all citizens. This concern with exclusion errors contrasts with the more common focus on "inclusion errors" (including on the SAB list households that are not meant to be there) in the literature on targeting, where the primary concern tends to be with the "cost-effectiveness" of public expenditure. Of course, ultimately both exclusion and inclusion errors may be important, but the main concern here is squarely with exclusion errors.

2. Scoring Methods and the BPL Imbroglio

The latest BPL Census, conducted in 2002, relied on a "scoring method" to identify BPL households. This method involved 13 different criteria (reflecting asset ownership, education, occupation, etc.), with a score of 0 to 4 assigned to each criterion, so that the aggregate score ranges from 0 to 52. Based on this aggregate score, it is possible to "rank" all households in a Gram Panchayat, Block, or District, and to select BPL households by applying a suitable cut-off score. This method was devised as an improvement over earlier approaches, based on income and related criteria (income being very difficult to assess in rural areas, these earlier approaches were prone to errors and cheating). However, there were serious conceptual flaws in the 2002 BPL criteria, and the whole method was, in any case, implemented in a haphazard

manner (partly because of its confused character). The result was a “hit or miss” BPL Census that came under considerable criticism.²

The pitfalls of earlier BPL Censuses are illustrated in Table 1, where we present (in the first column) the proportion of households with a BPL card in different quintiles of the Monthly Per Capita Expenditure (MPCE) scale, based on National Sample Survey data for 2004-5. Note that some of these BPL cards are based on the 2002 BPL Census, and others on the 1997 BPL Census. This is because, in many states, the distribution of BPL cards based on the 2002 census was still incomplete in 2004-5.³ With this qualification, Table 1 shows that barely half of all households in the poorest MPCE quintile had a BPL card in 2004-5, while 18 per cent of households in the richest quintile had one. There is a similar mismatch between BPL status and the National Family Health Survey’s “wealth index” for 2005-6 (second column of Table 1).⁴ National Sample Survey data for 2004-5 also show high rates of exclusion from the BPL list among disadvantaged social groups such as Scheduled Castes, Scheduled Tribes, agricultural labourers, and landless households (Swaminathan, 2008).

The scoring method poses several problems. First, this method is prone to arbitrariness both in terms of the indicators chosen and the scores assigned. To illustrate, it is not clear why, in the 2002 BPL Census, a household that owned more than ten pieces of clothing was given the same score as one where all the children go to school and do not work. Second, a BPL Census based on the scoring method entails a formidable administrative challenge as well as a major financial burden. With a whole list of indicators to be recorded for every household, the scoring exercise is of comparable magnitude to the decennial Census of India! It is also very expensive, bearing in mind not only direct costs such as those associated with training, travel and other inputs but also the opportunity cost of the investigators’ time (often teachers or other civil servants who are supposed to have other important duties).⁵

² For a sample of field reports on the 2002 BL Census, see www.righttofoodindia.org. For critiques of the 2002 BPL Census method, see Sundaram (2003), Khera (2008) and Government of India (2009).

³ The distribution of new BPL cards was “stayed” by the Supreme Court in May 2003, and the stay was not vacated until 2006.

⁴ On this, see also Ram, Mohanty and Ram (2009).

⁵ For a sobering account of the administrative burden involved in recent BPL identification work in Bihar, see Kumar (2008).

Last but not least, the scoring method lacks transparency: most people, especially among disadvantaged groups, are likely to find it difficult to understand. The aggregate scores, in particular, are unlikely to mean much to them. This makes the entire process vulnerable to manipulation. In particular, the scoring method does not lend itself to participatory verification. Transparency and verifiability of household scores is essential to prevent abuses.

The recent N.C. Saxena Committee report proposes an improved method for the next BPL Census, which involves the continuation of the scoring method in a simplified form.⁶ Instead of 13 indicators with a scale of 0 to 4 for each, the report proposes just 5 indicators (essentially focusing on community, land ownership, occupation, education, and old age or illness), with an aggregate score ranging from 0 to 10. This is certainly a major improvement, compared with the confused methodology of the 2002 BPL Census. But even this simplified scoring method divides the community into 11 groups, each with a different score that does not have a simple interpretation (all the more so as a particular score, say 7, can be obtained in different ways from the component indicators). Aside from opening the door to cheating, this makes the proposed method highly unsuitable for participatory implementation or verification, which is supposed to be central to the Committee's approach.

The resilience of the scoring method relates in part to the perceived need to impose pre-specified "caps" on BPL coverage in a particular state or area. At the state level, for instance, the number of BPL households is often expected to be consistent with independent poverty estimates, calculated by the Planning Commission from National Sample Survey (NSS) data. The Saxena Committee argues for higher poverty ratios (50 per cent at the national level), but retains the insistence on caps – not only for each state but for each District, Block and Gram Panchayat. Caps are relatively easy to meet in the scoring method: it is mainly a matter of setting suitable cut-off scores. But imposing caps can be quite destructive, as discussed below.

The "exclusion approach" explored in the next section does away with these caps. Instead, the attempt is to construct an enlarged BPL (or, from now on, "SAB") list by using exclusion criteria only, i.e. by excluding households that own any of a pre-specified list of assets.

⁶ See Government of India (2009). The report was prepared by a 17-member expert group chaired by Dr. N.C. Saxena. Appended to it are individual comments from nine members, including several notes of dissent.

Different sets of exclusion criteria are examined, keeping the focus on simple, transparent and verifiable criteria that can be easily understood by field investigators and village communities. Unless stated otherwise, all figures are based on the third National Family Health Survey (NFHS-3), conducted in 2005-6. Throughout this note, we focus specifically on rural areas.

3. Exclusion Criteria

We begin with a simple list of durable assets: cars, refrigerators, landline telephones, scooters and colour televisions. The composite asset “amenities” refers to having electricity, piped water *and* a flush toilet (all three). Ownership of any of these assets (hereafter “baseline assets”) constitutes the “baseline exclusion criteria”.

“Pucca house” is also considered as a possible exclusion criterion.⁷ However, there are two issues here. First, some poor households live in pucca houses as beneficiaries of the Indira Awas Yojana (IAY), a national programme of housing subsidies. In principle, one could consider “pucca house other than IAY building” as an exclusion criterion, but this is not possible with available data. Second, in some areas living in a pucca house is no indication of economic prosperity, e.g. because stone houses are easy to build or because the weather makes it hard to survive in a kaccha house. Perhaps a better exclusion criterion would be “multi-storeyed pucca house”, but this is not a feasible criterion with NFHS data. As an alternative, we consider “pucca house with more than one room for sleeping” (or “multi-room pucca house” for short) as a possible exclusion criterion; this is a narrower exclusion criteria than “pucca house”, but most probably broader than “multi-storeyed pucca house”.

Based on this, four sets of exclusion criteria have been formulated:

Set 1: Ownership of any of the baseline assets (“baseline exclusion criteria”).

Set 2: Ownership of any of the baseline assets, or of a pucca house.

Set 3: Ownership of any of the baseline assets, or of a multi-room pucca house.

⁷ Strictly speaking, what is being considered here is “living in a pucca house” rather than “owning a pucca house”. To keep things simple, the distinction is overlooked.

Set 4: Ownership of any of the baseline assets, or of at least 3 acres of irrigated-equivalent land.⁸

Under Set 4, land ownership is calculated in terms of “irrigated-equivalent” land, with a 3:1 conversion ratio between irrigated and unirrigated land. For example, irrigated-equivalent land ownership would be two acres for someone who owns two acres of irrigated land (and no unirrigated land), or for someone who owns six acres of unirrigated land (and no irrigated land), or for someone who owns one acre of irrigated land and three acres of unirrigated land. We also experimented with conversion ratios other than 3, but since the results are not very sensitive to the conversion ratio (within a reasonable range of 2 to 5), we restrict our illustrative presentation to the 3:1 benchmark.

Table 2 reports the ownership of baseline assets among rural households in 2005-6, looking first at different assets one by one (Table 2a), and then at different sets of exclusion criteria (Table 2b). As expected, the proportion of households owning one of the baseline assets is quite small for each specific asset (e.g. 6.6 per cent for fridge and 10.8 per cent for scooter). However, the proportion of households owning “any” of these assets is quite substantial: 22.6 per cent for the baseline set. The proportion of households owning a pucca house is also substantial (nearly 30 per cent), but as mentioned earlier, this is not a reliable exclusion criterion.⁹

Table 3 presents the proportion of *excluded households* state-wise, for each set of exclusion criteria. For instance, using the baseline exclusion criteria (Set 1), the proportion of excluded households would vary from around 10 per cent in Bihar and Jharkhand to 67 per cent in Kerala, with an all-India average of 22.6 per cent. The ranking of states, in terms of proportion of excluded households, is fairly plausible and correlates quite well with standard poverty estimates.

⁸ A cut-off of 5 acres was also explored, but this turned out to have little “bite”, in the sense that most of those with more than 5 acres of irrigated land would be excluded by the baseline criteria in any case. Even the 3 acres cut-off is rather blunt, as discussed below.

⁹ Interestingly, “ownership of a pucca house” was used as an exclusion criterion in the 1997 BPL Census (see Ram, Mohanty and Ram, 2009).

Comparing the first and last columns, we can see that adding a land criterion does not make much difference, even with a relatively low cut-off of three acres of irrigated-equivalent land: the entries in the two columns are quite similar, though there are significant differences in specific states. An even lower cut-off would entail a serious risk of exclusion errors; the conclusion seems to be that land ownership is not a particularly useful exclusion criterion. Further examination of alternative land ownership criteria points in the same direction. From now on, therefore, we ignore land ownership as an exclusion criterion.

What does make a difference is to add “pucca house” to the list of exclusion criteria, as we can see from comparing the first two columns of Table 3. With this broader set of exclusion criteria, the proportion of excluded households rises from 22.6 per cent to 36.7 per cent. This is not very different from the benchmark ratio of 50 per cent for BPL households proposed in the Saxena Committee. In other words, the “gap” between the exclusion approach and the current scoring-based approaches is not necessarily large, depending on how the exclusion criteria are defined. And if the gap (in terms of population coverage) is small, there may be a good case for the exclusion approach, given the pitfalls of scoring methods.

While “pucca house” is probably too broad as an exclusion criterion, “multi-room pucca house” has some plausibility (as would “multi-storeyed pucca house”, if the requisite data were available). If this is added to the baseline criteria, the proportion of excluded household is 28.7 per cent, more or less half-way between the proportions that emerge from the baseline criteria with and without “pucca house” (Sets 1 and 2 respectively).

It is worth scrutinizing the proportion of excluded households in different socio-economic groups, especially disadvantaged groups. This is the focus of Table 4. Looking first at the poorest households, in terms of the NFHS “wealth index”, it is somewhat reassuring to find that less than one per cent of these households would be excluded from the SAB list using the baseline exclusion criteria. There is an element of circularity here, since the NFHS wealth index is essentially an index of asset ownership, which includes our “baseline assets”.¹⁰

¹⁰ “The NFHS-3 wealth index is based on the following 33 assets and housing characteristics: household electrification; type of windows; drinking water source; type of toilet facility; type of flooring; material of exterior walls; type of roofing; cooking fuel; house ownership; number of household members per sleeping room; ownership of a bank or post-office account; and ownership of a mattress, a pressure cooker, a chair, a cot/bed, a table, an electric fan, a radio/transistor, a black and white television, a colour television, a sewing machine, a mobile telephone, any other telephone, a

Nevertheless, this finding is not entirely vacuous. It suggests that even crude asset ownership criteria may work almost as well as a more comprehensive index, for this particular purpose. Similarly, very few households categorised by the NFHS as having a “low standard of living” would be excluded in the baseline scenario (first column in Table 4).¹¹ However, 8 per cent of them would be excluded if “pucca house” were to count as an exclusion criterion, suggesting once again that this criterion is too broad.

Table 4 also shows that 13.8 per cent of Scheduled Caste (SC) households and 10.4 per cent of Scheduled Tribe (ST) households would be excluded in the baseline scenario. It is difficult to tell whether these should be regarded as “exclusion errors”, or whether most of these households are indeed well-off in some sense. Answering that question would require an independent standard of economic status, which is hard to define. Be that as it may, it can be argued that excluding more than 10 per cent of SC/ST households would be “divisive”, *even* if the excluded households are well-off in economic terms. A case could thus be made for including *all* SC/ST households in the SAB list, even if they meet some of the exclusion criteria. This is one argument for the “inclusion approach”, discussed below.¹²

Similar considerations apply to households headed by single women (in most cases, this would mean a widow). As Table 4 indicates, 12.8 per cent of nuclear households headed by a single woman would be excluded in the baseline scenario. Here the argument against exclusion is not so much its divisive nature as the fact that, in rural India, households headed by single women suffer many economic and social disadvantages that may not be captured in

computer, a refrigerator, a watch or clock, a bicycle, a motorcycle or scooter, an animal-drawn cart, a car, a water pump, a thresher, and a tractor.” (International Institute for Population Sciences, 2007, page 43).

¹¹ The Standard of Living Index (SLI) is calculated by adding the scores of a household on the following criteria: house type (e.g. a score of 4 for pucca home, 2 for semi-pucca and 0 for kachha), toilet facility, source of lighting, main fuel for cooking, source of drinking water, separate room for cooking, ownership of house, of agricultural land, of irrigated land, of livestock, and of durable goods. The wealth index is computed using principal components analysis, whereas the SLI is a simple total of the component scores, ranging from 0 to 67 (International Institute for Population Sciences, 2000, pp. 40-41). In rural areas, 45 per cent of all households belong to the “low SLI” category, with a score below 15.

¹² One commentator, however, pointed out that this argument is not conclusive, since the inclusion approach itself can be divisive, by reinforcing divisions between included groups (e.g. SC/ST households) and other groups.

asset-based indicators.¹³ Further, given the tremendous economic vulnerability of widow-headed households in general, this is a case where it is particularly important to avoid exclusion errors. This is another line of argument in favour of “inclusion criteria”.

4. Inclusion Criteria

We turn now to the possible use of “inclusion criteria” as a complement (or perhaps even a substitute) for the exclusion approach. The idea is to identify possible priority groups that would be entitled to social support (e.g. ration cards) as a matter of right, irrespective of other criteria, such as exclusion criteria or “scores”. The notion of priority groups can be found in some of the Supreme Court orders in the “right to food case” (*PUCL vs Union of India and Others, Civil Writ Petition 196 of 2001*).¹⁴ For instance, one of these orders states that six priority groups are entitled to Antyodaya cards as a matter of right.¹⁵ The idea of priority groups is also used, to some extent, in the Saxena Committee report.¹⁶

Inclusion criteria (and the associated priority groups) could be used in several ways, with or without the exclusion approach. First, they can be used to identify highly marginalized groups that would have special entitlements (say, under the PDS). This is the idea of the Supreme Court orders. As mentioned earlier, “universality” does not mean “uniformity”: the PDS, for instance, could have universal or quasi-universal coverage, and yet give special entitlements to disadvantaged households (e.g. under the Antyodaya programme).¹⁷

¹³ On the condition of widows in rural India, see e.g. Drèze (1990), Chen and Drèze (1995), Chen (1998), and the literature cited there. In studies of “the poorest of the poor” based on participatory identification methods, it is often found that a large proportion of the most deprived households are headed by widows and other single women; see e.g. Mukherjee (1992a, 1992b) and Sinha (1996).

¹⁴ These orders are available at www.righttofoodindia.org. For further discussion, see also Right to Food Campaign Secretariat (2008) and Saxena et al (various years).

¹⁵ These priority groups include “widows and other single women with no regular support”, “old persons with no regular support and no assured means of subsistence”, “households where... no adult member is available to engage in gainful employment outside the house”, and “primitive tribes”. This order (dated 2 May 2003) has been of great help in ensuring universal coverage of (so-called) Primitive Tribal Groups under the Antyodaya scheme. However, it has been largely ignored as far as some of the other priority groups are concerned, e.g. single women without support.

¹⁶ In this report, a relatively narrow collection of “priority groups” are listed for automatic inclusion in the BPL list. The main focus is on ultra-marginalised households such as “Primitive Tribal Groups”, homeless persons, bonded labourers and “destitute households dependent upon alms”.

¹⁷ On the Antyodaya programme, see e.g. Drèze (2002) and Jain and Shah (2005).

Second, inclusion criteria could be used to override exclusion criteria in the “exclusion approach”. For instance, Scheduled Caste (SC) households could be automatically included in the SAB list, irrespective of exclusion criteria. One possible motivation for this is to reduce the risk of exclusion errors. Another is to avoid the divisive effects of the exclusion approach, within particular communities.

Third, inclusion criteria could form the core of an alternative approach to the construction of a SAB list. In this approach (let us call it the “inclusion approach”), the exercise begins by selecting all households that meet any of the inclusion criteria. This is only the first step, and there are various ways of thinking of the second step, which is the completion of the list. The point of the first step is to protect the priority groups from exclusion errors. This is how inclusion criteria are used in the Saxena Committee report – but in a relatively limited manner, where priority groups are narrowly defined.

Note that the power of the inclusion approach depends on the extent to which poverty is associated with specific vulnerabilities (e.g. landlessness), occupations (e.g. agricultural labour), or other identifiable household characteristics. For instance, if it were the case that poverty is primarily associated with landlessness, or that most landless households are poor, then treating all landless households as a priority group would be a natural step in the construction of a SAB list. In practice, however, these associations are far from tight. Nevertheless, the approach is worth exploring.

As before, we try to keep the focus on simple, transparent and verifiable criteria. We begin by considering five inclusion criteria that were used in an early draft of the proposed Right to Food Act. With minor modifications, the corresponding priority groups are as follows:¹⁸

1. Households belonging to a Scheduled Caste or Scheduled Tribe.
2. Households with no agricultural land (or “landless households” for short).
3. Households with no adult member educated beyond Class 5.

¹⁸ The main modification concerns the fourth criterion. The initial formulation was “households where no adult member is available to engage in gainful employment outside the house”. This formulation takes note of the fact that households may be unable to take up gainful employment for a range of reasons, including for instance old age, illness, disability, and the demands of care-giving in the household. Due to data limitations, this has been replaced here with “households headed by single women”. This is a somewhat different category, though it overlaps with the original category.

4. Households headed by single women.
5. Households with at least one adult member working as an agricultural labourer (“agricultural labour households” for short).¹⁹

Note that the first four criteria can be seen as “socio-economic disadvantages” that are likely to be associated with poverty (though there may be exceptions, e.g. not all landless households are poor). The fifth criterion is somewhat different. It is based on the idea that agricultural labour tends to act as a “fallback” occupation in rural India – something that people do when other employment opportunities are not available. The fact that there is a close association between poverty and agricultural labour is relatively well documented.

Table 5 presents the proportion of rural households that meet these inclusion criteria. For any pre-specified criterion, this proportion tends to be quite large (more than 30 per cent for four of the five criteria being considered). More importantly, as many as 79 per cent of rural households meet *at least one* of these inclusion criteria. In other words, a large majority of rural households experience at least one of the basic socio-economic disadvantages examined here. This can be seen as an argument for a universal or quasi-universal system of social support in rural areas, especially in view of the exclusion errors that are inevitably involved in any targeted system.

It is also striking that nearly half of all rural households meet *at least two* of the inclusion criteria listed in Table 5. In a system of universal or quasi-universal social support with special entitlements for the poorest households (similar to the current “Antyodaya” programme under the PDS) these “doubly disadvantaged” households could be treated as a priority group for the special list.²⁰ Quite likely, this would go a long way in identifying the poorest households. Further, it would help to ensure that the identification of the poorest households is well integrated with the construction of the SAB list (if the latter is also based

¹⁹ Strictly speaking, the “adult members” considered here consist specifically of the woman respondent and her partner if any. All respondent women belong to the age group of 15-49 years. Note that the relevant occupation variables are missing or partly missing for about 20 per cent of sample households – all figures involving occupation data omit these households.

²⁰ *If* one were to accept the Saxena Committee’s 50 per cent benchmark for BPL coverage, double disadvantage could also be explored as one possible, simpler alternative to the scoring method. However, this “double disadvantage” criterion is quite restrictive, and the fact that it roughly matches the 50 per cent benchmark highlights the conservative nature of that benchmark.

on inclusion and exclusion criteria), in contrast with the situation that prevails today, where there is one set of principles for the BPL list, and another for the Antyodaya list. Possible combined uses of exclusion and inclusion criteria are discussed in the next section.

5. Combining Exclusion and Inclusion Criteria

There are four elementary ways of combining exclusion and exclusion criteria for the purpose of constructing a single SAB list. The reasoning is as follows.

Once exclusion and inclusion criteria have been defined, households can be partitioned into four groups, depending on whether they meet exclusion criteria, inclusion criteria, both, or none. A SAB list can be constructed by deciding, for each group, whether it should be “selected” or “rejected”. It makes sense to select households that meet inclusion criteria but not exclusion criteria, and to reject those that meet exclusion criteria but not inclusion criteria. What about households that meet both or none? Depending on whether one selects or rejects each of these two groups, four distinct approaches emerge:²¹

Exclusion approach: Reject a household *if and only if* it meets any of the exclusion criteria.

Inclusion approach: Select a household *if and only if* it meets any of the inclusion criteria.

Play-safe approach: Reject a household *only if* it meets exclusion criteria but not inclusion criteria.

Restrictive approach: Select a household *only if* it meets inclusion criteria but not exclusion criteria.

Note that the exclusion approach uses exclusion criteria only (inclusion criteria are not required), and similarly, the inclusion approach uses inclusion criteria only. But both criteria

²¹ Note that in the method proposed in the Saxena Committee report, scoring is used to select households within the fourth group (households that do not meet either exclusion or inclusion criteria). The report does not discuss the possibility of any “overlap” between exclusion and inclusion criteria, so the third group is effectively ignored.

are used in the “play-safe” and “restrictive” approaches.²² In the play-safe approach, inclusion criteria “override” exclusion criteria. In the restrictive approach, it is the reverse. Note also that all these approaches would be the same if inclusion and exclusion criteria were exact “mirror images” of each other (as when a single poverty line is used to include or exclude households). It is the imperfect complementarity between inclusion and exclusion criteria that leaves scope for distinct approaches.

The implications of these alternative approaches are illustrated in Table 6. In this table (first panel), we combine the “baseline exclusion criteria” with the inclusion criteria discussed in the preceding section. Starting with the first column, we find that under the “restrictive approach” (and with these specific criteria) 65 per cent of all rural households would be included in the SAB list. Even under this restrictive approach, the SAB list would include 94 per cent of households with a “low standard of living” (based on the NFHS index). It is doubtful that a scoring method of the sort proposed by the Saxena Committee would ensure such a broad coverage of low-SLI households (even after raising the overall coverage benchmark from 50 per cent to 65 per cent), bearing in mind not only the conceptual problems associated with the scoring method but also – more importantly – the implementation problems. However, missing even 6 per cent of low-SLI households can be a serious issue, e.g. in the context of ensuring food security for all through the PDS.

Turning to the fourth column of Table 6, the “play-safe approach” has the obvious advantage of reducing the risk of any exclusion error, in so far as exclusion criteria are overridden by inclusion criteria. The other side of the coin is that almost everyone (more than 90 per cent of all rural households) is on the SAB list. It is hard to see the case for this approach as opposed to a universal approach, which dispenses with any targeting whatsoever at relatively little extra cost (compared with the play-safe approach). Of course, the play-safe approach can be made more restrictive by adding exclusion criteria (such as “pucca house”), or removing inclusion criteria, but only at the risk of higher exclusion errors.

²² When both criteria are used, there is an important interdependence between exclusion and inclusion criteria. For instance, while “pucca house” is not generally a reliable exclusion criterion, as discussed earlier, it may be more acceptable when it is overridden by inclusion criteria (so that, say, a Scheduled Caste household living in a pucca house is selected rather than rejected). To put it another way, while “pucca house” is a dubious criterion in the exclusion approach, it may be more acceptable in the “play-safe” approach.

Turning finally to the middle columns, note first that the inclusion approach is not necessarily more “inclusive” than the exclusion approach. Much depends on the specifics of exclusion and inclusion criteria. In this case, SAB coverage happens to be much the same in both approaches when “pucca home” is left out of the list of exclusion criteria. A more significant difference is the *composition* of the SAB list. In the inclusion approach, all the priority groups are included, by construction, and from that point of view this approach is “safer”. If it were the case that all poor households belong to well-defined priority groups, there would obviously be a strong case for the inclusion approach. But the circumstances that lead to poverty can be quite diverse, and a comprehensive list of priority groups may be hard to devise. As long as the list is incomplete, poor households *outside* the priority groups would stand to gain from a switch from the inclusion approach to the exclusion approach. This can be seen, for instance, from the fact that among households in the “low SLI” category, about 5 per cent would be rejected in the inclusion approach, compared with only 1.2 per cent in the exclusion approach. Again, these patterns are contingent on the specifics of inclusion and exclusion criteria, but nevertheless, there is a conceptual dilemma in the choice between inclusion and exclusion approaches.

One possible extension of these approaches would be to allow Gram Panchayats or Gram Sabhas to add further households to the SAB list (within pre-specified limits), in the event where any poor households are “missed” by the primary method. Indeed, an exclusively statistical approach to the construction of a SAB list is unlikely to be adequate – participatory methods also have a role, and not just as a “verification” device. A “Gram Panchayat allowance” would also reduce the need for complex appeal procedures, such as those introduced in the wake of the 2002 BPL Census, which turned out to be cumbersome and ineffective.

Table 7 looks at the relationship between SAB selection and standard indicators of economic status from another angle. Here the focus is on the proportion of SAB households in different quintiles of the NFHS “wealth index” scale, under different approaches. This can be compared with the second column of Table 1. It is easy to see that all these alternative approaches produce a fairly strong correlation between economic status and SAB selection; by contrast, the current distribution of BPL cards does not correlate particularly well with economic status. In the case of the first two approaches, where exclusion criteria are used, there is an element of “circularity” in this examination, as mentioned earlier (in so far as our baseline exclusion criteria consist of assets that also enter in the computation of the wealth

index). However this does not apply to the last two approaches. The low discriminatory power of earlier BPL Censuses can also be seen, yet again, from the last column of Table 6: the proportion of households with a BPL card is not much higher than the all-India average (32.9 per cent) for any of the disadvantaged groups listed there.

It is difficult to go beyond these general remarks without a more detailed analysis, based on richer data sets, and also, more importantly, on field testing.²³ Meanwhile, the main insight of this analysis is as follows: there may be a real possibility of dispensing with scoring methods based on informed use of inclusion and exclusion criteria. The main significance of this observation is that inclusion and exclusion criteria are a matter of common knowledge in village societies. Scores, even simple ones, are not. This lack of transparency facilitates cheating, and obstructs people's participation in the whole process. It also reinforces the need for problematic "caps", as discussed in the next section.

To illustrate the contrast, the "primary method" would make it relatively easy to summarise the relevant characteristics of all households, and the reasons for their inclusion or exclusion from the list, on a single sheet of paper for public display (say, at the Gram Panchayat office). "Pro-active disclosure" practices of this type have proved quite effective, in other contexts, in fostering people's right to information and public vigilance.²⁴ Public display would be much harder to arrange, and much less useful in any case, when a scoring method is followed. Recent experience (in the context of attempted "appeal procedures" for the 2002 BPL Census) is quite sobering in this regard.

To take another example, in a recent field visit to Surguja district, we found that every house had a prominently painted "mark" indicating the status of the household on the BPL list. This was a simple way of publicising everyone's BPL status, so that the cheats can be exposed. And it seemed like a useful transparency measure, except that people were not necessarily

²³ A useful illustration of the seriousness of data gaps is the absence, in the National Family Health Survey, of any data on disability. This makes it impossible to examine how disabled persons and their households should be treated in different approaches, e.g. whether "households headed by a disabled persons" or even "households with a disabled member" would be sensible priority groups. According to NSS data, 8.4 per cent of households in rural India include a disabled person (National Sample Survey Organisation, 2003).

²⁴ For instance, pro-active disclosure of essential information is an essential principle of the National Rural Employment Guarantee Act (NREGA). In some states, notably Rajasthan, it has been of great help in preventing corruption.

clear as to who was entitled to a BPL card in the first place, given the intricacies of the scoring method used in the 2002 BPL Census. This transparency device is likely to be much more effective when the BPL (or SAB) list is based on simple exclusion and inclusion criteria.

6. The Question of “Caps”

At this point, we should return briefly to the thorny issue of “caps” on the BPL (or SAB) list. In earlier methods, including the improved method proposed by the Saxena Committee, the Central Government imposes caps on the number of BPL households in each state. These caps are expected to be translated by the state governments into corresponding caps at the District, Block or even Gram Panchayat level. For instance, the Saxena Committee report suggests caps at the Gram Panchayat level, based on a rather convoluted method.²⁵

There are two common, related arguments for imposing these caps. First, the Central Government seems to be concerned to “contain” the overall coverage of the BPL list (the Saxena Committee report itself argues for a 50 per cent target at the national level, for rural areas). The national target, naturally, needs to be distributed between states, and from there it tends to “percolate” to lower levels. For instance, poverty estimates are typically used – rightly or wrongly - to translate the national target into state quotas, in such a manner that state quotas are equal or proportional to poverty rates. State governments, in turn, find themselves having to allocate their quota between districts, and so on lower down.

Second, caps are also seen as a protection against cheating. Indeed, when there are caps at the Gram Panchayat level, eligible households have a strong incentive to keep an eye on the BPL

²⁵ Briefly, this method is as follows. First, the state’s “quota” of BPL cards is distributed across districts based on a summary index that gives “equal weightage to three indicators: the ratio of SC/ST population in that district as a percentage of total SC/ST population in the state, the inverse of agricultural production per rural person, and agricultural wage rate of the district”. Second, the district quota is distributed among Blocks in a manner that is left to the state government or district authorities, although the committee suggests that it could be based on the following indicators: “double cropped or irrigated area” as a proportion of total cultivated area; length of metalled road as a proportion of the district total; female literacy; and proportion of non-agricultural workers to total workers. Finally, the Block quota is allocated among Gram Panchayats on the basis of population. This is rationalized as follows: “We are assuming here that within a Block there would be uniformity of infrastructure etc. and the number of poor per hundred population will not vary from panchayat to panchayat. However, the decision to do further sophisticated disaggregation could be left to the Collectors, or district panchayats, if they wish to”.

Census process and blow the whistle in the event of any mistakes or cheating, since illegitimate inclusion of any household automatically leads to the exclusion of another household. Note that for this process to work, the caps have to be applied at the Gram Panchayat level, and not just at the District or Block levels. If the cap is, say, at the District level, each Gram Panchayat would stand to gain from claiming that most of its members are BPL households. It is at the Gram Panchayat level that a cap would lead to some “peer monitoring” of the BPL Census.²⁶

Needless to say, imposing caps at the Gram Panchayat level is quite problematic. Indeed, the incidence of poverty varies a great deal between Gram Panchayats, even within relatively small areas such as a Block, and there is no reliable way of distributing (say) the Block-level quota between different Gram Panchayats according to poverty rates. Instead, proxy indicators are typically used for this purpose, or even just population ratios, in the absence of other useful data. As a result, there is absolutely no guarantee that Gram Panchayats with high proportions of poor households will get a fair share of BPL cards, and “exclusion errors” in these Gram Panchayats are likely to be large. The fierce competition for BPL cards in these Gram Panchayats is also likely to generate conflict, resentment, and inequity.

In the scoring approach, the need to prevent cheating is fairly strong, because it is quite easy for households to “misreport” the underlying indicators. This is all the more so when non-transparent and non-verifiable indicators are used, as happened in the 2002 BPL Census. Even the improved scoring method proposed by the Saxena Committee uses some problematic indicators of this type, such as “any member of the household has TB, leprosy, disability, mental illness or HIV/AIDS”.

In the alternative approach explored here, based on simple exclusion and inclusion criteria, these issues take a somewhat different form. On the one hand, caps are, in some ways, particularly problematic in this approach. This is because they may conflict with the rights of

²⁶ The first argument for caps (consistency with a national target) does not require caps at the Gram Panchayat level: scores can be used to “rank” all households within, say, a Block or district, and then the cut-off score (below which households are included in the BPL list) can be set in such a way that the BPL coverage matches the pre-specified caps.

the “priority groups” for automatic inclusion.²⁷ In principle, there are ways around that. For instance, each Gram Panchayat could have a “baseline quota” for SAB households, and these quotas could be adjusted upward whenever required to accommodate priority groups. Since we have some idea, from secondary data, of the size of priority groups in different states and districts, prior provision could be made for the required adjustments. But this adjustment process would certainly be a major complication.²⁸

On the other hand, in this alternative approach, there is a real possibility of doing away with caps altogether. This is because, as discussed earlier, the primary method is likely to be less vulnerable to cheating. Unlike scores, the proposed inclusion and exclusion criteria are transparent and verifiable, and a matter of common knowledge within Gram Panchayats. This makes it possible to invoke various transparency measures, such as those mentioned in the preceding section, as well as participatory verification processes, say through the Gram Sabhas. Also, cases of gross cheating in specific Gram Panchayats are likely to “show” in the data, since there is a fair amount of secondary data (e.g. from the decennial Censuses) on many of the proposed criteria. It is, thus, possible to envisage a situation where the coverage of the SAB list is “self-generated”, based on the inclusion and exclusion criteria, rather than determined by top-down caps. This hypothesis, at any rate, is worth testing on the ground.

This leaves the first argument for caps: the possible need to meet a national target. If the primary method is adopted, however, it would be possible to meet a national target (if required) without imposing caps at the state level or below. This is because the outcome of the primary method, in terms of aggregate coverage of the SAB list, can be anticipated from secondary data. A national target could therefore be met by suitable choice of inclusion and exclusion criteria. But more importantly, the national target could be waived altogether, and give room to a self-generated SAB list. This would be hard to do with a scoring method.

²⁷ This problem is not addressed in the Saxena Committee report. Perhaps it is to avoid this tension that priority groups are defined quite narrowly in the report (if priority groups are a small minority, their inclusion is unlikely to conflict with the caps).

²⁸ Another complication is that, unlike the scoring method, the primary method does not yield a full “ranking” of households. The scoring method makes it relatively easy (in principle!) to impose caps, in so far as it produces a full ranking of households (in terms of aggregate scores), so that, for instance, a cap of 25 per cent can be applied simply by picking the bottom 25 per cent of households in terms of that ranking. But the alternative approach explored here could be extended to produce a ranking of households. For instance, land ownership could be used as a ranking variable within the SAB list, *after* the SAB list has been constructed using one of the approaches discussed earlier.

Whether caps can be actually be dispensed with under the primary method, and if not, whether the primary method can be reconciled with “caps”, are two questions that call for further enquiry. If the answer to both questions is “no”, then it is not clear that there is any “alternative to the BPL Census” – other than a universal system.

7. An Intermediate Approach: Binary Scoring

One possible argument against the primary method explored here is that it is too rigid, in so far as it does not allow for any weighing and aggregation of different criteria, as in the scoring method. For instance, a household that meets multiple inclusion criteria (say, a landless Dalit household) is treated in much the same way as a household that meets *any* of these inclusion criteria (say, a landless household or a Dalit household). It could be argued that more flexible approaches are possible, with the same information.

One possibility here is “binary scoring”, with a score of 0 or 1 being assigned for each of inclusion criterion, and the scores being aggregated, with or without weighing. For instance, one simple scoring method, proposed to the Saxena Committee at one stage, was based on the following binary scores:

- 1 if the household is SC or ST (and 0 otherwise);
- 1 if the household is landless (and 0 otherwise);
- 1 if the household has no adult member educated beyond Class 5 (and 0 otherwise);
- 1 if the household is headed by a single woman (and 0 otherwise);
- 1 if the household is engaged in agricultural labour (and 0 otherwise).

In the absence of weighing, the aggregate score would then take discrete values between 0 and 5. One proposal was that households with an aggregate score of at least 1 should get a BPL card, and those with an aggregate score of at least 2 should get an Antyodaya card (the implications have already been illustrated in Table 5). But other formulas could also be considered.²⁹

²⁹ Binary scoring arranges all households in a few discrete “slabs” (in this case, those with an aggregate score taking values 0, 1, 2, 3, 4 or 5). However, as mentioned in the preceding footnote, it is

Interesting theoretical arguments for binary scoring are presented in Alkire and Foster (2009), along with possible variants and extensions of this approach. It can be argued that binary scoring imparts flexibility to the approaches explored earlier, without detracting in a major way from their transparency and simplicity. Here again, however, detailed investigation and testing would be required to ascertain the actual feasibility and usefulness of this approach.

8. Concluding Remarks

In this note, we have explored possible uses of simple exclusion and inclusion criteria for the purpose of identifying households eligible for social support (a “social assistance base”, of which the BPL list can be seen as a particular case). We began by considering the possibility of a quasi-universal approach, whereby all households are eligible unless they meet pre-specified exclusion criteria. Next, we examined inclusion criteria, and different ways of combining them with exclusion criteria.

This exploration remains tentative, if only because of the data limitations. With richer data, the boundaries of this enquiry could be usefully extended. For instance, it would be useful to examine the possibility of more extensive use of occupation-based inclusion and exclusion criteria. There is a good case for including, say, all rickshaw-pullers in the SAB list, and perhaps also for excluding permanent government employees.³⁰ The idea is not that a full-fledged method of SAB identification could be worked out from secondary data, but that careful analysis of secondary data would shed light on the credibility and potential of different approaches. Detailed field tests would be required to take this further and develop a specific identification method.³¹

Meanwhile, an important message emerges from this enquiry: it may well be possible to dispense with scoring methods, and to replace them with simple combinations of exclusion

possible to convert this discrete grouping into a continuous ranking by using a “ranking variable” (e.g. land ownership) to sort households within each slab.

³⁰ Some use is made of occupation categories in the methodology proposed by the Saxena Committee (Government of India, 2009).

³¹ In this respect, the Saxena Committee report is rather weak. The proposed method does not draw on any data analysis or field testing, and even its conceptual foundations are far from clear. It is largely based on informed guesses about appropriate scoring formulas.

and inclusion criteria. This applies particularly in the quasi-universal approach, which relies entirely on exclusion criteria. But even if this approach is rejected in favour of a targeted approach, simple combinations of exclusion and inclusion criteria are likely to be preferable, in many respects, to scoring methods. While this is not a definitive conclusion, there is a case for further exploration of this alternative to the scoring method.

Finally, we reiterate that nothing in this paper should be construed as a justification for a targeted (or even quasi-universal) approach as opposed to a universal approach. On the contrary, some of our findings can be sensibly read as a reinforcement of the case for a universal approach.³² Indeed, the search for a “safe” way of excluding privileged households, without significant risk of exclusion for poor households, remains somewhat elusive.³³ This is an important argument for the universal approach, expensive as it may be – especially in the context of the proposed Right to Food Act, which derives from a universal and fundamental right to life.

³² On the general arguments for universalization, see Khera (2009).

³³ As one commentator puts it: “It is a little bit like requiring people to identify themselves for execution which, if there were no other way, would be a good argument for not executing people!” (Angus Deaton, personal communication).

References

- Alkire, S., and Foster, J. (2009), "Counting and Multidimensional Poverty Measurement", mimeo, Queen Elizabeth House, University of Oxford.
- Alkire, S., and Seth, S. (2008), "Determining BPL Status: Some Methodological Improvements", Indian Journal of Human Development, 2(3):407-424.
- Anon (2009), "Identifying the Poor", Economic and Political Weekly, 18 July.
- Bose, Ashish (2009), "Census and the Aam Aadmi", Economic and Political Weekly, 16 May.
- Chen, Marty (ed.) (1998), Widows in India: Social Neglect and Public Action (New Delhi: Sage).
- Chen, M., and Drèze, J. (1995), "Recent Research on Widows in India", Economic and Political Weekly, September.
- Drèze, Jean (1990), "Widows in Rural India", Discussion Paper No.26, Development Economics Research Programme, London School of Economics.
- Drèze, Jean (2002), "Ending Destitution", The Hindu, 29 July.
- Government of India (2005), Performance Evaluation of Targeted Public Distribution System, Report No. 189, Programme Evaluation Organisation, Planning Commission, New Delhi.
- Government of India (2009), Report of the Expert Group to Advise the Ministry of Rural Development on the Methodology for Conducting the Below Poverty Line (BPL) Census for 11th Five Year Plan (New Delhi: Ministry of Rural Development); available at <http://www.rural.nic.in>.
- Hirway, Indira (2003), "Identification of BPL Households for Poverty Alleviation Programmes", Economic and Political Weekly, 14 November.
- International Institute for Population Sciences (2000), National Family Health Survey 1998-9 (NFHS-2): India (Mumbai: IIPS).
- International Institute for Population Sciences (2007), National Family Health Survey 2005-06 (NFHS-3): India (Mumbai: IIPS).
- Jain, J., and Shah, M. (2005), "Antyodaya Ann Yojana and Mid-Day Meals in MP", Economic and Political Weekly, 2 December.
- Jain, Sachin (2004), "Identification of the Poor", Economic & Political Weekly, 20 November.
- Khera, Reetika (2008), "Access to the Targeted Public Distribution System: A Case Study in Rajasthan", Economic and Political Weekly, 1 November.

- Khera, Reetika (2009), "Right to Food Act: Beyond Cheap Promises", Economic and Political Weekly, 18 July.
- Kumar, Nitish (2007), Keynote Address delivered at a seminar on "Revisiting the Poverty Issue", convened by the Institute of Human Development and held at the A.N. Sinha Institute of Social Studies, Patna, 20-22 July.
- Mander, Harsh and Mehrotra, Santosh (2009), "How to Identify the Poor? A Proposal", Economic and Political Weekly, 9-15 May.
- Mukherjee, Neela (1992a), "Rural Communities' Perceptions of Poverty and Well Being: Some Case Studies in a Participatory Framework", paper presented at a workshop on "Meanings of Agriculture" held at the South-Asian Centre, School of Oriental and African Studies, London, 13-15 July.
- Mukherjee, Neela (1992b), "Villagers' Perceptions of Rural Poverty through the Mapping Technique of PRA", RRA Notes 15, International Institute for Environment and Development, London.
- National Sample Survey Organisation (2003), "Disabled Persons in India, NSS 58th round, July-December 2002", Report No. 485, NSSO, New Delhi.
- Ram, F., Mohanty, S.K., and Ram, U. (2009), "Understanding the Distribution of BPL Cards: All India and Selected States", Economic and Political Weekly, 14 February.
- Right to Food Campaign Secretariat (2008), Supreme Court Orders on the Right to Food: A Tool for Action (New Delhi: Secretariat of the Right to Food Campaign).
- Saxena, N.C., et al (various years), Reports of the Commissioners of the Supreme Court in the "Right to Food" Case (*PUCL vs Union of India and Others, Civil Writ Petition 195 of 2001*); available at www.righttofoodindia.org.
- Sinha, Ajay (1996), "A Profile of the Poorest among Poor: Missing Link in the Development Strategy", mimeo, Village Study Unit, LBS National Academy of Administration, Mussoorie.
- Sundaram, K. (2003), "On the Identification of Households Below Poverty Line in BPL Census 2002", Economic and Political Weekly, 1 March.
- Swaminathan, Madhura (2008), "Public Distribution System and Social Exclusion", The Hindu, 7 May.

Table 1: BPL Cards and Economic Status, 2005

	Proportion (%) of rural households with a BPL card ^a in different quintiles, based on:	
	Monthly Per Capita Expenditure (NSS Data, 2004-5)	Wealth Index (NFHS Data, 2005-6)
Poorest quintile	53.1	39.2
Second quintile	41.0	38.9
Third quintile	34.6	36.9
Fourth quintile	25.6	31.9
Richest quintile	17.8	17.6
All households	34.2	32.9

^a Includes Antyodaya cards. In the NSS data set, there is no separate code for Antyodaya cards, and it has been assumed that the “BPL” category includes Antyodaya cards. In any case, only 3.3 per cent of all rural households have an Antyodaya card (NFHS data).

Source: Authors’ calculations based on the 61st Round of the National Sample Survey and the Third National Family Health Survey (NFHS-3).

Table 2a: Asset Ownership among Rural households

	Proportion (%) of rural households owning
<i>Baseline assets</i>	
Car	1.0
Amenities ^a	5.0
Fridge	6.6
Phone	8.0
Scooter	10.8
Colour TV	12.5
Pucca home	28.9
Pucca home with more than one room for sleeping	16.1
More than 3 acres of irrigated-equivalent land	10.7

^a Electricity, piped water *and* flush toilet (all three).

Source: Calculated from NFHS-3 data (rural India, 2005-6).

Table 2b: Potential Exclusion Criteria

	Proportion (%) of excluded households, based on alternative sets of exclusion criteria ^a
Set 1 (baseline criteria)	22.6 (8.8)
Set 2 (baseline criteria or pucca house)	36.7 (11.9)
Set 3 (baseline criteria or multi-room pucca house)	28.7 (10.6)
Set 4 (baseline criteria or 3 acres of irrigated-equivalent land)	28.3 (11.1)

^a In brackets, the corresponding figures when “inclusion criteria” override exclusion criteria (see discussion further in the text).

Source: Calculated from NFHS-3 data (rural India, 2005-6). “Baseline criteria” refers to ownership of any of the baseline assets.

Table 3: Proportion (%) of Excluded Households, State-Wise

	Set 1	Set 2	Set 3	Set 4
Jharkhand	9	15	13	10
Bihar	10	18	15	16
West Bengal	12	23	18	13
Chhattisgarh	12	16	15	18
Orissa	13	30	23	15
Madhya Pradesh	13	17	15	21
Assam	14	19	18	16
Uttar Pradesh	14	21	19	23
Rajasthan	20	42	31	28
Andhra Pradesh	25	52	32	30
North-eastern region	28	32	30	31
Karnataka	28	49	35	33
Maharashtra	29	42	34	36
Jammu and Kashmir	33	50	46	36
Tamil Nadu	31	66	39	33
Uttaranchal	38	49	45	44
Gujarat	42	58	46	48
Haryana	44	63	54	50
Himachal Pradesh	58	68	64	58
Punjab	65	74	69	67
Kerala	67	88	82	67
ALL INDIA	23	37	29	28

Source: Calculated from NFHS-3 data (rural India, 2005-6). Delhi and Goa are excluded from the table, but included in the last (“all India”) row. “North-eastern region” consists of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. States are arranged in ascending order of the proportion of excluded households under Set 1 (first column).

Table 4: Proportion (%) of Excluded Households in Different Reference Groups

Reference group	Proportion (%) of excluded households in the reference group, based on:			
	Set 1	Set 2	Set 3	Set 4
Poorest households (based on wealth index) ^a	0.7	0.8	0.7	4.2
Households with “low SLI” ^b	1.2	8.0	2.6	2.3
Scheduled Castes	13.8	27.9	18.8	16.5
Scheduled Tribes	10.4	17.0	13.4	16.4
Landless households	20.1	36.1	25.6	20.1
Households with no educated adult	6.1	18.1	9.6	9.9
Households headed by single women:				
Nuclear households	12.8	28.6	17.0	14.9
Non-nuclear households	26.5	41.0	34.7	30.9
“Agricultural labour” households ^c	12.1	24.6	17.1	17.6
All rural households	22.6	36.7	28.6	28.3

^a Lowest quintile of the “wealth index” scale (see text for details).

^b In rural areas, 45 per cent of all households belong to this category (see text for details).

^c Households with at least one adult member working as an agricultural labourer (for further discussion, see Section 3).

Source: Calculated from NFHS-3 data (rural India, 2005-6).

Table 5: Potential Inclusion Criteria

	Proportion (%) of rural households meeting the specified inclusion criteria
Single inclusion criteria:	
SC/ST households	31.8
Landless households	41.5
Households with no educated adult ^a	38.4
Households headed by single women	14.9
Agricultural labour households	32.9
<i>Any of the above criteria</i>	78.9
<i>Any two of the above criteria</i>	47.5

^aNo adult attended school beyond Class 5.

Source: Calculated from NFHS-3 data (rural India, 2005-6). For further details of the inclusion criteria, see text.

Table 6: Proportion (%) of SAB Households in Different Groups

	Proportion (%) of Households in the SAB List				Proportion (%) of households with a BPL card, 2005-6
	Restrictive approach	Exclusion Approach	Inclusion Approach	Play-safe Approach	
SC/ST households	87.4	87.4	100	100	41.2
Landless households	79.9	79.9	100	100	38.1
Households with no educated adult	93.9	93.9	100	100	39.6
Households headed by single women	82.2	82.2	100	100	34.8
Agricultural labour households	87.9	87.9	100	100	38.9
Households with low "SLI"	94.0	98.8	95.1	99.9	40.3
All rural households ^a	65.1 (54.1)	77.4 (63.3)	78.9 (78.9)	91.2 (88.1)	32.9

^a In brackets, the corresponding figures when "pucca home" is added to the list of exclusion criteria (i.e. "Set 2" is used instead of "Set 1").

Source: Calculated from NFHS-3 data (rural India, 2005-6). The figures in the first panel indicate the proportion of households that would be selected into the SAB list based on combining the "baseline exclusion criteria" with the five inclusion criteria introduced in Section 3 (for the definition of different approaches, see text). The last column shows the proportion of households that actually had a BPL card in 2005-6.

Table 7: SAB Selection and Economic Status

	Proportion (%) of Households in the SAB List, in Different Quintiles of the “Wealth Index” Scale			
	Restrictive approach	Exclusion approach	Inclusion approach	Play-safe approach
Poorest quintile	92.9	99.3	93.5	100
Second	79.3	95.1	83.0	98.8
Third	60.8	80.6	74.0	93.8
Fourth	23.4	35.7	65.2	74.5
Richest quintile	0.9	1.6	54.5	55.1
All households	65.1	77.4	78.9	91.2

Source: Calculated from NFHS-3 data (rural India, 2005-6).