



Poverty Targeting and Multidimensionality: A study of Delhi

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0. Introduction

The idea for this article originated while being part of a project commissioned by the Government of National Capital Territory of Delhi (GNCTD, from here on) in July 2010.¹ There were 3 aspects to the project –1) devising a method for 'rationalising' all the disparate (welfare) schemes run by the GNCTD, 2) creation of a multidimensional index capturing the 'vulnerability' of the population covered in a survey commissioned by a department of GNCTD known as Samajik Suvidha Sangam (SSS), and 3) creating a standard operating procedure (SOP) using the index created (in step 2 above) for a 'cash transfer' scheme to be piloted in some districts in Delhi. We (an independent academic research organisation) were called to participate in a process where certain facets of policy were being made and our involvement implicitly served certain requirements of the policy being made. But, first the terms of reference. The first objective hints at a certain un-rationalised state of affairs in the schemes run by the GNCTD from a specific policy position. The second objective showed the illusive notion of vulnerability as 'captured quantitatively' through the SSS survey. However, a look at the third objective reveals that this mandate for the creation of an index was for a purpose –so that a cash transfer scheme can be instituted.² The first two aspects of the exercise bring home a key aspect of poverty –its multidimensionality. This, not only has implications on the way poverty (vulnerability) is measured from a methodological point of view, but also informs policy making in ways yet to be formally coded. The third objective raised raised two issues –the use of cash transfers replacing/augmenting certain schemes as a new policy option and the second concerning the targeting method to be employed were the multidimensional approach such as the one envisaged to be implemented. Cash transfer programs are being mooted as a radical new alternatives by different governments around the world. Although the implications of these innovations in the spheres of public policy are huge, we will limit ourselves to a crucial aspect of the legitimacy deriving processes of cash transfers –the demonstration effect of third-party impact evaluations of these schemes devised in a scientific way. It is through these third party impact evaluations that the cash transfers have got popularity and acceptance. Moreover, the exercise itself hinted at the performativity (Callon (1998, 2007)) of two specific tools –use of multidimensional measures of poverty and randomised control trials.³ The idea of “performativity” we

¹ There were 3 parties to this project –Government of National Capital Territory of Delhi (GNCTD), United Nations Development Program (UNDP) and India Development Foundation (IDF, the organization I represent)

² A metric on the basis of which cash equivalents of different states of vulnerability /multidimensional poverty can be calculated.

³ Callon (1998, 2007) defines performativity as the notion that any process of description or explanation in any theoretical enunciation necessarily shapes the facts/objects being described. Didier (2007) etc. have explored the performativity angles for statistical constructs. We will provide a formal exposition of the context we seek to use this concept later on.

have used is in the sense that these tools not only depict or more specifically “describe” (Didier (2007)) the objects they set out to describe (measuring poverty in the first case and development effectiveness in the second), but also transform/have an effect on/create anew these objects as they set out to describe them.⁴ The proceedings of the project set the ground for the demonstration of these effects.

A series of concomitant developments also informs the contentions made in the paper. The first being the movement seen in the last 15 years or so for capturing poverty in its multidimensional complexity (Kanbur (2009)) and seeking policy interventions in the light of these measures. It all started with Amartya Sen and Mahbub ul Haq inspired Human Development Report of 1990 and Human Development Index (HDI), in particular.⁵ The HDI was intended to work not as a constatic (i.e. depicting a “state” only) number/statistic but illocutionary, with an aim to shift “...the focus of development economics from national income accounting to people centered policies...”.⁶ Apart from HDI, a plethora of papers have, in recent times, shown how a multidimensional poverty measure can be constructed (Bourhuignon and Chakravarty (2003), Kakwani (2008b) and Alkire and Foster (2007, 2009) etc.). There has also been a parallel development in economics in the last 10 years or so, that of the use of clinical trials from pharmacology in evaluation of policies.⁷ The third objective of the project that engenders this paper concerns itself with the design of a cash transfer. The use of cash transfers as a policy tool is one of the recent policy interventions that draw a lot from the results of impact evaluations based on randomised control trials for its legitimacy (Kanbur (2009)).

The paper seeks evidences of performative practices of the economic concept of poverty in policy instruments i.e. schemes of GNCTD and the project itself. Two specific sites for tracing this process thus arise –

- 1) the tenuous accommodation of multidimensionality in poverty targeting within the existing schemes and the intended (suggested) institutional changes the GNCTD (the project) wanted (made); and
- 2) the process through which GNCTD gained (sought) legitimacy for the cash transfer scheme.

While the former (the changes wanted/suggested) suggests a performativity of a poverty measurement approach, the latter hints at the performance of the monitoring and evaluation (M&E) framework of the kind spoken of by Abhijit Banerjee et al and mandated by the donor networks (World Bank, UNDP, DFID etc.). The argument (in the first instance) is based on the contention that although the measures

4 As the use of a technique drawn from language theory (Austin (1962)), “performativity” presupposes the primacy of language (of the welfare theory of poverty or the language of policy, say), it might seem contrived at places to include all the materiality of actual poverty incidence in a causal chain stemming from the theory of multidimensional poverty measures. But, in what follows, we will look to “situate” the process in the context where a pronouncement stemming from theory has material force (the agencements of Callon).

5 See Fukuda-Parr, S (2003), *The Human Development Paradigm: Operationalizing Sen's Ideas on Capabilities*, *Feminist Economics* 9 (2 – 3), 301 – 317; and Comim, F., Qizilbash, M. and Alkire, S. Ed., (2008), *The Capability Approach: Concepts, Measures and Applications*, Cambridge University Press, New York, among others.

6 Mahbub ul Haq (1995), from the title of the book itself which reads, “Reflections on Human Development: How the focus of development economics shifted from national income accounting to people centered policies, told by one of the chief architects of the new paradigm.”

7 See Banerjee, A. and Duflo, E., (2008), *An experimental approach to development economics*, *Working Paper*, Massachusetts Institute of technology, Department of Economics and Abdul Latif Jameel Poverty Action Lab, for a fairly up to date literature survey on the subject. A randomised control trial is an experimental method to development where effectiveness of a policy intervention is judged by comparing the group that receives the intervention with another (a perfect/unbiased counterfactual for the former group) created through random allocation of the intervention to the population.

of multidimensionality in poverty emerged as descriptive devices to accurately describe and measure poverty which is inherently multidimensional, the force of the theory came to influence the construction of poverty through newer methods of targeting seen (desired) in the policy framework. The terms of reference given by GNCTD, the existing poverty targeting practice seen in the schemes appraised for 'rationalisation' and the suggestions made in the light of the theory (i.e. creation of a multidimensional measure of vulnerability using the method devised in Alkire and Foster (2008)) provide the material for the performativity argued. Further, there were unique methods employed by the GNCTD to garner legitimacy for a specific kind of redistributive policy in the form of creating a peer reviewed SOP for the cash transfer scheme, allowing for an experimental design built into the draft scheme and finally the acceptance of the M&E framework based on the experimental premise. These emerge as performative evidence for various aspects of the new development “paradigm” as Mahbub ul Haq calls it. In this paper, while we are concentrating on only the first type of performativity, we shall see in due course that the setting of the multidimensional experiment is related to the latter.

In what follows, we shall begin with the working tools on performative theory used in the paper. This section will describe the method Callon (2007) uses, adapting the notion first brought to fore with a distinctive clarity by J. L. Austin (1962). The second section deals with the construction of poverty through poverty lines. The third section will take a cue from the 'rationalisation' step in the project. We will detail the process of implicit reconciliation of multidimensionality of poverty through the targeting practice seen some schemes of GNCTD reviewed for the study. We will also describe our approach as it evolved and describe some of the results (suggestions) emanating from a translation of the theory into practice. The last section will conclude with a discussion on the points raised.

1. “What does it mean to say economics is performative?”⁸

We will borrow the tools employed in Callon (2007), drawing on Austin (1962) for an operational articulation of the performatives employed in economics. But, before delving into the apparatus I have borrowed from speech (performative) theory, I will make certain assertions on, 1) the economic device (construct) I have used for the speech part, 2) how a linear linking of the speech (the theory) and the act (evidence in policy formation and thence the construction of poverty itself) is futile and 3) a justification for adopting this method.

Assertion-1: Sen's capability approach and its consequent avatars in various multidimensional measures of poverty amounted to an innovation in the way poverty was understood.

Assertion-2: The course of progression of an economic idea (innovation) from the space of academics to that of policies is not a linear one. There are feedback loops in the diffusion resting on and reconfigured by the presence (absence) of specific felicity conditions (about felicity conditions a bit later on). Hence, I would not seek Sen's physical or astral linkages with poverty planning of GNCTD to prove my thesis that a measure performed the poverty.

Assertion-3: Since the context of the project (and me/we as actant) and the context of the policy insofar as this study was concerned was one and the same, I had to have a theoretical construct that recognises this embeddedness of it all. For our entry point into the domain of policy through this project was eventually through a text that connected 'estimates' of the number of vulnerable, of the money required for such an implementing it, to a logic (rationalisation of schemes) through rhetorics.⁹

⁸ This is the title of Callon's (2007) paper.

⁹ The immediate motivation for the use of performativity is that it allows us close the gap between the language and the speech from a 'pragmatic' position. In this context, any language, we note, taking a cue from Morris (1938) (quoted in

Performative theory, as formulated by Austin (1962) has been used in various settings in the pragmatic tradition by among others John R. Searle (1969) and Judith Butler (1990, 1997). Butler's recasting of gender as an iterative role acclimation was a fore runner of feminist theory. Bourdieu (1991) has used the notion to bring in the importance of socio-cultural domains in analysing performatives. More recently, this notion has found use in the social studies of science.¹⁰

Some definitions to start with. A “performative utterance”, for J.L. Austin was a specific kind of statement or expression that establishes its referent through the very act of uttering. To Austin,

performative statements are “Utterances ... found ...such that

A. they do not 'describe' or 'report' or constatae anything at all, are not 'true or false'; and

B. the uttering of the sentence is, or is a part of , the doing of an action, which again would not normally be described as saying something.”¹¹

What Austin did was to dispel the contention that language is merely representational and that there are statements that reconfigure the object being referred to and described.¹²

“Enunciation” is the act of uttering and by the very fact that it is enunciated there can be no enunciation where the uttered statement does not carry/constitute the context in which it functions. To quote Callon, “...to have meaning a statement implies its context of enunciation (*the existence of at least an enunciator and an enunciatee...*)”¹³ Further, this means there can be no purely semantic referential meaning of an enunciation i.e. independent of the context of its utterance. Scientific discourse in particular carries statements that have indexical meanings, i.e. the exact context where in the truth evaluation of the statement uttered can be made. To illustrate, any scientific (or economic theoretical) statement carries within it the preconditions where it can be true.

Since Austinian performatives are neither true nor false, their interpretation can only be made in terms of conditions he termed as “felicity conditions”. Enunciations are performative in conditions they derive their force of action from. That is the performation is contextual. “Illocutionary acts” are acts performed or in other words illocution is an action stemming from an utterance. But, this 'narrow' formulation supposes a boundary between discourse and what lies beyond it. Callon introduces the notion of “agencement” borrowing from Deleuze and Guattari (1998) which essentially means an arrangement of agencies involved. They have the capacity of acting in different ways depending on the configuration. The crucial difference here between an arrangement and an agencement is the non-recognition of the differences between human agents and inanimate objects (theories, concepts, institutions, materialities of all sorts etc.) in the heterogeneous assemblage that constitutes the actualization of any illocution.

This brings us to what is known as the “actor network theory” turn. The exposition of the

Callon (2007), p. 317), has “...a syntax (relations between signs), semantics (relationships between the signs and what they denote), and pragmatics (relations between signs and their use context), which cannot be entirely dissociated from one another...”.

10 Apart from Callon (1998, 2007), Hacking (1983), Barnes (1983), MacKenzie (2003), MacKenzie and Millo (2003), Miller (2002) have contributed to the debate in social studies of science following Austin's methodology.

11 Austin, J.L. (1962), *How to Do Things with Words*, Oxford: Clarendon (First Lecture, p. 11)

12 Typical examples would be “I promise”, “I pronounce you man and wife”, “I baptise you” etc. These sentences are not truth evaluative, nor are they descriptive only. They also carry force (in the context they are spoken) and actualise the event being described as Austin answers in the segment, “Can saying make it so?” (p.13)

13 Callon (2007), p. 318

performativity up till now allows us to attribute actantiality to economic actors (or actants as Latour (1999) would say to include non-human actors in the mix).¹⁴ Now, having established this subjectivity to all the actants implied by the theory (say a specific representation of a multidimensional index), we shall locate the actants in the specific agencement that gave rise to the transformation of the object at hand – constructs of poverty. The project, in this sense, can be used as a device to test how far can we attribute this performativity of certain theoretical results (published) to the reconfiguration of the enunciatee (the poor, say) as constructed through policy texts.¹⁵ An “actor network theory” allows us to look at this process in all its materiality without getting bogged down by the limitations imposed by the inclusion of non-human actants in the network. The inherent idea is to look at a network of actants forming nodes in a causal chain not in terms of their relationships and positionalities only, but in terms of the transformations they imply/enact.¹⁶

2. Counting the poor¹⁷

We now get down the process (es) through which the poor are constituted in the specific setting of India. In this section, we will summarise the process of description of poverty through the involvement of the different agencies. Specifically, this section will help establish a crucial linkage between the 'statement defining poverty' (and counting it) with the materiality of development initiatives which seek to reconstitute the category the former seeks to 'define' (identify) and measure (count). This will enable us to get a handle on the use of “poverty targeting” as seen in the government schemes of Delhi in Section 3 and how the notion an explicit multidimensionality in poverty targeting creates multiple sites of intervention through these schemes.

Planning Commission, a central government institution, is the official identifier of the poor in India. It declares a household as poor if the per capita monthly consumption level of the said household is below a certain benchmark called the “poverty line.” A poverty line benchmark is the minimum amount of consumption a household incurs to satisfy basic nutritional requirement calculated in calorie terms. Poverty line, and hence the calorie requirement is deemed to be different for rural and urban households. Planning Commission brings out estimates of the number of poor state-wise and sector-wise (urban and rural) every five years. These estimates are based on a survey called Socio-Economic Survey (SES) conducted every five years by the official statistical data gatherer National Sample Survey Organisation (NSSO).¹⁸ NSSO-SES is a sample survey i.e. the estimates brought out by Planning Commission are not actual counts of all the people below poverty line but a representative estimate. Also, another thing to note is that, Planning Commission does not certify individual persons as poor (or non-poor), it only counts them. The data gleaned thus constitute the basis on which policies on the social sector are made.

The description is a paraphrased form of the process for identification and aggregation.¹⁹ Practically, it

14 Latour (1999) defines “actantiality” as not what an actor does “... but what *provides* actants with their actions, with their subjectivity, with their intentionality, with their morality.” (emphasis Latour's)

15 We shall use the reports by different task forces and expert groups on poverty and the official scheme declaration documents as our policy text.

16 Specifically, the series of articles in MacKenzie et al (2007), *Do Economists Make markets: On the Performativity of Economics*”, Princeton: New Jersey

17 This happens to be the title of the study by Dubey and Gangopadhyay (1998).

18 The quinquennial surveys are the so called fat rounds. NSSO also conducts consumption surveys annually using smaller sample sizes. These are called thin rounds. Poverty estimates are based on the large (fat) rounds of NSS.

19 These two steps (identification and aggregation) are what Sen (1976) called the two problems in measurement of poverty. We will delve deeper into them in the next subsection.

involves the coupling of a household with an identification (poor, non-poor) and a regional unit (state, urban or rural) with an aggregate number. We will start the discussion with a detailed description of the process followed in identification of the poor through the creation of a poverty line. In other words, this 'describes' poverty (and through that creates the poor). This we shall do for the official poverty line of arrived at by the Task Force appointed by Planning Commission on projections of Minimum needs and Effective Consumption Demands in July 1977 (and whose deliberations came out as a Report in 1979).²⁰

2.1 Identification:

The construction of the poverty line (PL) is based on a normative understanding of the minimum living standards. India has followed two alternative tracks in the creating the poverty lines –the method of minimum normative food basket and that of the calorific norm. The earliest poverty line used what is called a “per capita total expenditure (PCTE)” of Rs. 20 per month in 1962.²¹ This was based on a normative food basket.²²

The minimum calorific value approach was adopted by a Task Force constituted by Planning Commission in 1979. The minimum calorie intake norms on which this PL was based was taken from the recommendations of the Nutrition Expert Group (1968). This Expert Group had defined calorie norms by age-sex-activity categories. The projected population for the year was accordingly divided into these these categories and the 'uniform calorie norms' were derived by using weighted average of the rural and urban populations separately.²³ The daily calorie requirement thus came to be 2435 for rural areas and 2095 for urban areas. The next step is to use reverse interpolation using the 28th Round NSS (1973-74) data and calculate the PCTE level corresponding to the calorie norms arrived at.²⁴ These PCTE levels are updated for the year the “poverty count” is desired by making adjustments in the 1973-74 values for price changes. These instruments are appropriate consumer price indexes for the middle ranges of population and are sector specific (rural/urban). Initially wholesale price index was used for this updating process but upon the recommendations of a Study Group on 'The Concept and Estimation of Poverty' (1984), consumer price indices were used for urban and rural areas separately. Various estimates of poverty were obtained by different teams of research workers using different price indices for updating the 1973-74 values.²⁵ Finally, there remains the adjustment for divergence of the

20 Perspective Planning Division (1979), *Report of the Task Force on Projection of Minimum Needs and Effective Consumption Demand*, Planning Commission.

21 Generally the total consumption expenditure is a figure aggregated over expenditure on 'food items', 'pan, tobacco and intoxicants', 'fuel and light', 'clothing and footwear', 'miscellaneous consumer goods', 'miscellaneous consumer services', 'rent, taxes and cess', 'education', 'medical -both institutional and non-institutional', and durable goods, as given in the consumption schedule of NSSO-SES. The Rs. 20 PL did not include expenditure on education and health which were supposed to be provided for by the state. The per capita total consumption expenditure (PCTE) is calculated as a division of the household total consumption expenditure by the number of members then household has. N.B. The unit of the NSS survey is a household.

22 Medical and nutritional criteria are used for creating a basket of food items which form the basis of the minimum normative food expenditure. This is obtained by the multiplication of a price series (pertaining to the food basket) to the specified quantities of food items in the normative basket. However, the estimates of 1962 did not explicitly state what the constituents of the food basket were. In short a PL based on this method is that PCTE which ensures minimum normative food expenditure.

23 Census of India is a decennial affair (the most recent being 2011) with 1979 falling in an inter-censal period. The actual year the projected census population referred to was the year 1982-83.

24 A linear interpolation formula was used on average monthly PCTE data from the monthly per capita expenditure (MPCE) classes in the 28th round NSS data. A linear interpolation assumes that difference in MPCE (expressed in calorie terms) between any two points in time remains the same.

25 See for example, Minhas et al. (1987, 1988, 1990) and Dubey and Gangopadhyay (1998) among others.

NSS estimates from that of National Account Statistics through an adjustment factor.²⁶

2.2 Aggregation:

“Most policymakers prefer the simple head count ratio (HCR), or the poverty gap index (PGI). Researchers prefer more sophisticated measures like the Sen Index, or the general class of Foster-Greer-Thorbecke (FGT) measures.”²⁷ This quotation sums up the method of aggregation used once the identification step is over. There has been very few innovations in this regard in all the debate over the methodology involving poverty in India. A simple HCR simply calculates the people below the poverty line in the NSS sample as a ratio of the total population. This, of course is done after using the multipliers to make the NSS data representative of the population of the country in general.

This complicated process of identification of the poor goes through certain phases. We shall conflate the various agencies in this prescriptive process below. Specifically, these agencies perform an illocution through their statements on poverty that comes out through processes of definition (giving the poor an identity) and measurement (counting the poor).

1. Planning Commission and Plans in general: In particular, the Perspective Planning Department within Planning Commission, which has been entrusted with constructing (estimating) the poverty rates. This has important ramifications in the form of 'translations' it induces over the different actants in this milieu –the plan imperative. Everything is geared towards an implicit 'poverty alleviation policy'.²⁸ Hence, the emphasis on counting and proportions (HCR).
2. National Sample Survey Organisation: The national survey agency. Any policy initiative insofar as identification of the poor is concerned cannot but be based on the NSS data. Therefore, the codes of “continuity” and “comparability” that abound in the reports of the task forces and the expert groups shape the contour of the identification and aggregation process.²⁹
3. Indian Statistical Institute: This preeminent institute of statistics which from its inception and by the peculiarities of its constitution (it comes under the Ministry of Statistics and Program Implementation (MOSPI) as does NSSO). Almost all the poverty groups (and the expert groups on NSS) have had people from ISI in them.³⁰

26 See Dubey and Gangopadhyay (1998) for a detailed look at the whole process of creation of the poverty line and the adjustment factor. They also provide a glimpse of the differences in methodology resulting in different estimates.

27 Dubey and Gangopadhyay (1998), p. 9

28 Almost all the reports considered, legitimise the study of poverty through the plan rhetoric. To quote the “Report of the Expert Group on Estimation of Proportion and Number of Poor”, “In spite of the diversity of opinion among experts on the methodology of measuring poverty, the importance of quantifying it has been well recognised, especially since poverty alleviation has become an important Plan objective and successive plans have been specifying poverty alleviation targets. Poverty estimates have entered the consciousness and parlance of a wide public - politicians, bureaucrats, academicians, media, students, and activists, and have helped to promote awareness and public action. The poverty estimates have not only been used for evaluating development efforts, but over time, have found use in the allocation of funds for poverty alleviation programmes among the States. An acceptable and representative quantitative index of poverty is, therefore, necessary.” (p. 8). Also the “... poverty line provides the conceptual rationalization for looking at the poor as a "category to be taken care of through targeted ameliorative programmes, ignoring structural inequalities and other factors which generate, sustain, and reproduce poverty.” (p. 11)

29 In this context, a sideshow not touched upon will the controversies over “recall periods” in the NSSO-SES consumption schedule. Initially, expenditures on all the consumption items were based on a 30 day recall from the respondents. The year 1999-2000 saw an experiment in NSS-SES and a “mixed recall” period was used wherein, certain items had a 7 day recall period while some had the conventional recall period. This created an outcry since the results obtained were way off the trend and the next NSS-SES reverted back to the old scheme. A considerable portion of the Report of the Expert Group to Review the Methodology for Estimation of Poverty (constituted in 2004 and report published in 2009) devotes to this necessity of comparable results.

30 See Ghosh, J.K., et al (1999) for the role played by ISI in the statistical constellation of India.

4. Price indexes: Construction of price indexes had an important role to play in the multiplicity of poverty measures seen in the literature.

Through this kind of an assemblage, we pose two segues (conjectures): 1) “poverty identification was necessary because its count influenced poverty alleviation policy” and 2) 'the unidimensional identification' based on consumption (or calorie) actually shaped its form through singular processes of 'continuity' and 'comparability'.³¹ These two we shall allow in only as segues without proper fleshing out since, we only have conjectural information for the causal chains given (as seen in the bricolage in discussions till now). These segues also get a proper form in the next section when poverty identification is actually given material force through the interlocution of schemes.

3. Rationalisation of schemes:

This section traces a step of our project for the Government of National Capital Territory of Delhi (GNCTD) called “rationalisation of schemes”. This section imparts the construction of poverty in the section earlier with illocutionary force by acting on the eventual object (the poor) in various specific ways, through the device of ‘schemes’ seeking to re-constitute them. We undertake a review of the existing schemes of GNCTD to suggest a way for their rationalisation and integration. This is necessary because there are as many as 110 schemes reviewed in this report. These are being administered by 12 separate departments.³²

As part of rationalisation, we were given a mandate to a) seek ways of integrating schemes, so that b) unused and underused funds pertaining to the schemes could be diverted towards the new cash transfer scheme.³³ The latter was not a part of the terms of reference given to us. To start with a govt. scheme does two things at the same time. The first is the identification and hence creation of a category of citizens called 'beneficiaries'. The second involves a transfer from the govt. in the form of either cash or kind to the 'beneficiaries'. We went about the task of rationalisation by doing a two-stage transformation of the schemes to locate the commonalities in them. The first, involved what can be called a “projection of the schemes in terms of the benefits. This allowed us to get the 108 schemes segregated into 3 broad categories –education, health and other welfare. The second process is the projection of the schemes in the “intended beneficiary space”. The latter boiled down to a “life-cycle approach” wherein the “beneficiary” is a construction in the time continuum –the needs of a person are multifarious and inseparable from one another, *ceteris paribus*, the only mutability the government needs to be prepared for is the natural progression from one age-specific life-stage to another. This process was informed by certain peculiarities extant in the schemes reviewed:

1. The first, is the uniformity in poverty targeting practices found across all the schemes. The uniformity is vis-a-vis the accommodation of the only acceptable (unidimensional) income (expenditure-based) metric (a certification based on the status of a person as 'below' or 'above' the poverty line –the so called BPL/APL cards). Therefore, even though a scheme may target old age or gender, the only legitimate case for redistribution of resources arises when the person is additionally vulnerable as evidenced by her BPL status. The only exception to this is the targeting on the basis of caste (i.e. schemes aimed for Scheduled Caste and Scheduled Tribe populace).
2. The second is the apparent endless possibility of unique 'beneficiary'-'benefit' pairings, in the forms of schemes. About 110 active schemes were operational during the time of the survey.

31 I shall use segue as a proto conjecture, posed so as to allow smooth transition from one section (conjecture) to another.

32 We provide a description of the schemes in the Appendix.

33 Objective 1, see introduction

- The fact was that no two schemes were exactly alike (and hence could be declared redundant).
3. The spread of schemes in terms of sectors tallied with aims set in the Millennium Development Goals and those that are supposed to influence 'Human Development' (the schemes were gender, age, education, health and environment sensitive).

We will illustrate the targeting practice and the benefits meted out through an analysis of schemes on education sector.

3.1 Illustration (for education sector)

The schemes under education in GNCTD can be broadly divided into the following 3 categories:

- i. Inducement in the form of financial assistance (cash/scholarships)
- ii. Distribution of educational aids like free uniform, textbooks, etc.
- iii. Resource augmentation through infrastructure creation, teacher training, etc.

According to our classification of basic, support, and enabling schemes in the education sector, schemes that provide universal elementary education are basic, while those that provide educational aids and support infrastructure are enabling. Both these types of schemes have to be looked at in conjunction. **Table 1** lists educational schemes across different age groups by the type of benefits received (vertical), as well as across benefits for each age group (horizontal). We shall try to integrate schemes horizontally or vertically if a scheme covers a large group of population and most of the benefits; we then make a case for retaining the scheme, and subsuming any other smaller schemes that provide similar benefits.

Let us explain this with an example. In **Table 1**, S1, S2, etc. are codes given to schemes (codes are provided in the Appendix). At present, a child in the age group of 6-14 years can avail of 15 different schemes divided across types of benefits. Based on a horizontal integration approach, we should be able to replace all 13 schemes (except S93 and S8, reasons for which we explain later in this section) by S6 (Sarva Shiksha Abhiyan (SSA)) in the highlighted row (6-14 years).³⁴ Look at the Educational Aids column for this age group. S1-S5 and S12 are schemes that provide educational aids to children in government or government aided schools (provided by Directorate of Education and Municipal Corporation of Delhi depending on the jurisdiction). S62 provides educational aids to deaf and dumb students provided by the Department of Social Welfare. S8 provides educational *infrastructure* to this age group, while S11-S15 and S82, S83 provide *financial assistance*.

It is important to note that S6 is an all encompassing scheme that provides educational aids and infrastructure to this age group. It aims at universal primary education. If we look at financial assistance as also a form of educational aid for the child, we need only have S6 for children in this age group. This is also efficient in terms of integration based on the operational segmentation approach that we mentioned earlier, which involves the role of information technology for integration. At this stage, we refer to the household level data for the vulnerable population of Delhi (924,019 households) provided by GNCTD. According to this data, the potential beneficiaries in the age group 6-14 years (this is where universal elementary education is provided), is about 887,454, out of which 415,101 are girls. So, let us say that 887,454 is the number of children that have to be provided with SSA. All other schemes such as S82 and S83, which include financial assistance to SC/ST/OBCs (total of about 428,126 potential beneficiaries), and S62, which provides educational aids for deaf and dumb students (total of about 592 beneficiaries) can be subsumed under SSA. SSA will have the exhaustive database of all 887,454 children; hence, all other schemes should ideally become part of this, as the detailed data on beneficiaries is entered in the database once. In our analysis, infrastructure (S8) related schemes are

³⁴ A universal elementary education drive.

usually one-time expenditure and will have to be looked at separately. SSA is an obvious example of ensuring basic rights along with providing aids that address deprivations and shocks, all under one umbrella.

All other schemes that address other age groups across varied benefits are marginal benefits provided to an individual, such as S15 (scholarship for meritorious students), S22 and S23 (both provide assistance for vocational training) and are to be looked as enabling schemes. These schemes enable the socio-economically deprived child to reach a level-playing field as a productive individual of the workforce. S93 is an example of additional benefits provided once the child goes to school. This scheme spans across most age groups, and hence a case for retaining the scheme is made.

Table 1: Distribution of schemes under education by age group

	Cash/scholarship	Educational aids	Infrastructure
0-6 years	S93		
6-14 years	S93, S82, S83, S11, S15	S1, S2, S3, S5, S6, S12, S62	S6, S8
14-18 years	S93, S82, S83, S88, S11, S15, S16, S18	S1, S3, S62	
18-60 years	S14, S15, S17, S22, S23, S84	S91	S85, S86, S89

Source: GNCTD Compendium of Schemes on Education³⁵

Note: S_i ($i=1,2,\dots,110$) in the cells pertain to a scheme with the subset denoting the scheme code given at the appendix.

Note: This framework is adapted from India Development Foundation's (IDF) framework given in the chapter on "Rationalisation"

3.2 Targeting in Education Schemes in GNCTD: accommodating multidimensionality

Table 2 (Sector: education; Benefit type: cash/scholarship for primary and secondary/senior secondary education)

Age Group	BPL	Income Cap (Rs. 60000-100,000)	SCST	OBC	Religious Minority	Gender (male)	Gender (female)
Child (0-6)	S93	S93					S93
Child (6-14)	S93, S11, S14, S15, S82, S83	S93, S11, S14, S15,	S82, S83	S82, S83	S82, S83	S6	S6

³⁵ Found at <http://www.delhi.gov.in/wps/wcm/connect/06585f80425a2cfcb534bdb0d5f7ce2c/9General+Education+%5B79-130%5D.pdf?MOD=AJPERES&CACHEID=06585f80425a2cfcb534bdb0d5f7ce2c> (accessed on 10th September 2010)

Adolescent (14-18)	S93,S11,S14,S15,S18, S82, S83	S93, S11, S14, S15,	S82, S83	S82, S83	S82, S83	S93
Adult/college (18-60)	S17	S17	S15	S15	S15	

Note: 1. This table is for illustration only and is incomplete. It relates to a specific category of benefit meted out, that of cash/scholarships
2. This framework is adapted from India Development Foundation's (IDF) framework given in the chapter on "Rationalisation"

What this table points at is that schemes belonging to the education sector may target different types of vulnerability but the identification criterion is still the "official poverty status". Schemes labeled S11, S14, S17, S15, S82, S83 and S93 (details provided in the Appendix), aim to provide cash support and merit scholarships to pupils starting from pre-primary stage to the college levels. But, they all have to satisfy the identification criterion of being a Below Poverty Line (measured using the conventional metric of Poverty Line.

Still staying within the educational sector, we see from **Table 2**, that even though this matrix takes into account the relatively homogeneous category cash support type schemes only, the target groups are segregated across different age-groups (pertaining to different classes), gender, and socio-religious categories. We will take the examples of a scheme that targets all the age groups in this matrix S93, a universal scheme S6 and two schemes that target vulnerable social groups (scheduled caste and tribes) and religious minorities S82 and S83 respectively to illustrate the point. The scheme labeled S93 actually addresses³⁶ the gendered dimension of education, whereas S6 (Sarva Shiksha Abhiyan) is the universal elementary education drive and it provides a series of benefits to all. Schemes S82 and S83 club the categories of caste based vulnerability (Scheduled Caste (SC) and Scheduled Tribe (ST)) with that coming from the status (identity) as a religious minority.

The other point that comes out through this is the problem of identification or rather of identities. We have as many as 9 schemes operating in this partial table on education. On closer observation, we will also see that all the schemes apart from S6 use the BPL mode of targeting. Even those targeting SC/ST and religious minority groups (S82 and S83) also include beneficiaries who are Below Poverty Line (BPL).³⁷

The final point regarding, targeting is the periodic revision of the income norms. As can be seen in **Table2**, 5 schemes of GNCTD viz. S93, S11, S14, S15 and S17 have a revised eligibility of households with annual income not more than Rs. 100000. This also brings to for a point missed in the section on poverty lines –that of the arbitrariness of a normative measure like Poverty Line and secondly, a reflection of the fact that a singular nation-wide benchmark of poverty (or even that calculated state-wise) is not reflective enough of the ground reality.

³⁶ S93 is the so called Laadli Yojana of Govt. of Delhi. The scheme seeks to promote education of the girl child. From the moment a girl child is born (with differential amounts for institutional and non-institutional delivery), she is given a cash amount, which gets an increment with each additional year of schooling she successfully completes till the child reaches 18 years of age. This is when she gets the total amount.

³⁷ As pointed out in the section on poverty lines, Planning Commission constructs the poverty lines but does not certify people as Below (or Above) Poverty line. That follows a rather tedious procedure, owing to fulfillment of a set of criteria (a set of proxy means) and as certified by a select group of government and local self-government entities. The politics of award of the BPL certification is beyond the scope of this study but it also inherits the problems of proxy means in creating inclusion/exclusion errors.

We now propose 2 ‘segues’:

-first, the evidence of multiplicity of schemes point to a tenuous attempt to accommodate the multiplicity of dimensions inherent in poverty (in particular, those of gender, social and religious groups, sector (education, health, etc.) and age groups) through the unidimensional metric of consumption poverty. In other words, since consumption (income) poverty is only one aspect of poverty, there will always be dimensions that cannot be covered by this alone.

-second, if one were to rationalize schemes, one has to resort to transformations of the schemes in ways shown in **Table 1** to cut through the unique combinations of ‘benefits-beneficiaries’, as it were. Also, this kind of a rationalization is possible since there is a mismatch between the benefits (normative) and the means of identification possible in the extant system. One would expect a benefit as ‘enunciated’ through a scheme would also ‘describe’ the objects it *can* act on *completely*. But, supposing we introduce a synthetic restriction on the *ability* of the illocution to affect its object, then we will have what we will call ‘incomplete performance’. In an ‘utterance’ of this kind, more than one meaning can be attributed to the description process and hence, we are provided with an extra set of degrees of freedom to interpret. This is what allows our rationalization to come into force. We also argue that, this is what provides the legitimacy (among others) for the creation of newer benefit-beneficiary pairings. To give an example, let us take Laadli Yojana as an example. It sees to promote education of the girl child through cash based incentives. It also has as its ‘eligibility conditions’ (identification criterion) an income threshold of Rs 100000 which is much higher than the conventional BPL limit which comes to about Rs. 24000. Laadli also spans the school-going age group of birth till 18 years completely. This should, therefore, be the definitive scheme on promotion of girl children through cash based incentives. But, we argue that by virtue of the emphasis on income as inclusion criterion, it will still not be accessible to a host of households owing to reasons inherent in the inclusion criterion. There could be many legitimate potential beneficiary families (in terms of the income criterion) but a host of them lack the wherewithal for accessing the official certification. Without actually ascertaining the reasons for this argument, we will provide corroborating evidences of this claim by some simple tables in the next section using data from the SSS Survey in the next section.

4. Developing a Multidimensional Framework

In absolute poverty lines like India has, the identification of who constitutes the poor is only based on the unidimensional measure of an aggregate consumption figure expressed in Rupee terms as we saw in Section 2. But, the development of the capability approach³⁸ of Amartya Sen and the development of the human development index (HDI)³⁹ in particular has brought the notion of multidimensionality into the purview of policy.⁴⁰ However, multidimensional indices like HDI do not solve the problem of policy intervention. This index of human development is simple to calculate but is silent about the

³⁸ Starting with the Tanner Lecture (1980), “Equality of what”, Sen’s capability approach is predicated on what Sen (1990) defines as “capability” and “functioning”. “Functionings are what Sen (1999: 75) calls ‘the various things a person may value being and doing’. Examples include being adequately nourished, being in good health, avoiding escapable morbidity, being happy, having self-respect, and taking part in the life of the community (Sen 1992: 39). There is no definitive list of basic functionings because different sets will be relevant to different groups and in distinct settings (Sen 2005: 157–160). A person’s capability ‘represents the various combinations of functionings (beings and doings) that the person can achieve’ (Sen 1992: 40).” (quoted from Comim, F. et al, (2008), p. 2)

³⁹ HDI combines indicators of life expectancy at birth (a measure of longevity of people in a country), knowledge and education, and standard of living into a single number which transcribes the ‘wellbeing’ of a country into a uniform unit allowing for inter-country and inter-state comparisons.

⁴⁰ See Haq, Mahbub ul (1996), *Reflections on Human Development, OUP*, for a detailed description of how human development got encased into an index known as HDI and how this became the definitive indicator of development in all the developing countries.

identification issues. It does not say anything about how to identify people deprived in any of the 3 broad dimensions so that an intervention at the policy level can be designed. Now, even if we manage to identify threshold deprivation levels in each dimension, how to combine the multiple permutation of such deprivations is the one of the questions the work of Alkire and Foster (2008) addresses.⁴¹ They formulate a dual cutoff identification approach where, there are two forms of cutoffs to identify the poor.

“The first is the traditional dimension-specific poverty line or cutoff, which identifies whether a person is deprived with respect to that dimension. The second delineates how widely deprived a person must be in order to be considered poor.”⁴²

This is the approach we adopted since this allows us to work with any normative set of vulnerability dimensions. For us, the set of dimensions was imposed by the already codified set present in the data from the SSS survey.

Now coming back to the project, I will play my role as an actant and will narrate the text verbatim. We started with the twin objective of (a) creating a multidimensional measure to be implemented across all households in Delhi and (b) to distinguish households in a way that allows the government to offer different levels of cash transfers based on the differing degrees of vulnerability. For (a), we used the aggregation method suggested in Alkire and Foster (2008) and for (b), we used the theoretical results from (a) on the SSS survey dataset of vulnerable people.

The methodology used in Alkire and Foster (2008) captures the spread and the depth of the incident vulnerabilities included in it. But, the methods provided in the paper was of no help to us in the identification step of the process (remember that poverty measurement consists of two steps – identification and aggregation). We had to be limited by two factors: a given dataset (that from the SSS survey of GNCTD) and the second being the implicit notion of vulnerability as provided in a Cabinet Note of the GNCTD.

Table 3: Vulnerability criteria as laid down by the Cabinet of Delhi

Type of Vulnerability	Vulnerability	Cabinet’s Criteria
Social	Old Age	Households with old people either living along or as dependents with their children or other (Equal and above the age of 60).
Social	Diseased	Households with people who suffer from at least one debilitating and stigmatized diseases like HIV/AIDS, TB and Leprosy.
Social	Disabled	Household with at least one disabled person
Social	Single Woman	Single Women (including widows, unmarried and separated and deserted women) living in household(s) as dependents, or along.
Social Vulnerability	Woman headed Household	Single Women (including widows, unmarried and separated and deserted women) living in household(s) as heads of households.
Social	Child headed Household	Single unprotected children and children living without adult protection.
Occupational	Occupational	Households which are primarily dependent on earnings from occupations and forms of employment or self-

⁴¹ Works like Bourguignon and Chakravarty (2003), Atkinson (2003), etc. and the articles featured in the edited book by Kakwani and Silber (2007) describe many different approaches on multidimensional measures of poverty.

⁴² Alkire and Foster (2008), p.2

		<p>employment which are casual, low-end, with low and uncertain wages and irregular employment, unsanitary, unhealthy and hazardous work conditions, and bonded, semi-bonded or other undignified and oppressive conditions of employment. Those households with any members who are in regular employment with public or private sector would not qualify for occupational vulnerability. An illustrative, but not exhaustive list of such occupations are as follows:</p> <p>Rag-picking, Unskilled Construction workers, Casual Daily Wage Labour, Street Vendors/Hawkers, Casual Domestic Workers, Cycle Rickshaw Drivers, Unskilled workers in small household enterprises, Unskilled workers in small household industries</p>
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Note: This Table is taken from India Development Foundation's (IDF) chapter on "Implementation Plan"

We will describe the methodology adopted through 3 long quotes from our (unpublished) Chapter on "Implementation Plan".

"Vulnerable households were located through the Samajik Suvidha Sangam (SSS) Survey conducted in two phases (completed in 2010). The survey covers 924016 households in all the 9 districts of Delhi and was based on three broad dimensions of vulnerability (locational, social and occupational) as laid down by the Cabinet Note of GNCTD (**Table 3**). It was assumed in the Note that anyone living in the locations where the survey was carried out is potentially vulnerable. The scheme proposed by us is based on two broad principles:

- (a) An individual is a dynamic entity and vulnerability takes on different implications at different stages of her life-cycle; and
- (b) Household characteristics affect the degrees of vulnerability for the individuals in the household. We have, therefore, taken the household as our unit for the intervention.

Both these imply that the degree of vulnerability of the individual changes with time and with the context within which the household operates."⁴³

We proposed the implementation of the principles given above in the "...following manner:

- (a) Define a household to be *definitely vulnerable* if either one of the two is true for the household: (1) the head is of working age (between 18 and 60 years, both inclusive) and is educated till below primary and (2) the head is of working age (between 18 and 60 years, both inclusive) and works in a dangerous (susceptible to morbidity and/or injury) profession (rickshaw puller, (untrained) construction worker, rag-picker);
- (b) Calculate the number of members in the household who require special support because of their physical or social position (widows, adult female members who are separated or divorced, differently-abled member, any member (other than the working head) involved in a dangerous profession or, above the age of 60); and
- (c) Calculate the number of lactating mothers and the number of boys and girls yet to reach adulthood."⁴⁴
- (d) By summing up the numbers got in 3 steps above, we get what is known as the family vulnerability score.

⁴³ Quoted verbatim from IDF's Chapter on "Implementation Plan", p. 2

⁴⁴ Quoted verbatim from IDF's Chapter on "Implementation Plan", p. 2

The method delineated above does what is known as a dual cut off –it sets vulnerability thresholds in individual dimensions ((a), (b) or (c)) as well as the number of dimensions a household needs to be vulnerable in for it to be considered vulnerable.⁴⁵

In this formulation, (a) assumes that the working head of the household is entrusted with decision making and income earning abilities and, fragility in any of these capabilities makes the household vulnerable. This also matches with the ‘livelihood vulnerability’ referred to in the Note. Criterion (b) addresses the social vulnerability dimension mentioned in the Note. We have criterion (c) to ensure that children in these potentially vulnerable locations do not face any disadvantage in growing up to be productively trained and healthy adults.

We will now wrap up this Section with a table showing the differences in the conventional method of poverty targeting and our method described above (as applied to the SSS Survey data).

Table 4 District-wise Coverage using BPL-status and our method in the state of Delhi

District	Number of Households Covered	No. of Households Covered using Below Poverty Line status
North	68055	27228
Central	36195	24414
East	107437	53102
West	117174	55051
South	157517	45388
New Delhi	4924	2377
North East	142639	67469
North West	210488	105889
South West	79587	27160
Total	924016	408078

5. Discussion

In this section, we will compile the segues of previous sections leading up to two different scenarios – the apparent inertia witnessed in the official poverty targeting in the central government vis-à-vis the suggested innovation of multidimensional poverty targeting possible through this project. In what follows we will cite evidences of the recognition of the limits of unidimensional poverty lines by

⁴⁵ This dual cutoff method is adapted from Alkire-Foster (2008).

successive task forces and expert groups constituted by the Planning Commission. Then, we will see why a workable alternative accommodating multidimensionality could not be introduced at all in the Planning Commission.⁴⁶ We base our thesis, above all, on the premise that poverty measures derive their performativity through the interlocutor of schemes. The measures describe schemes and the schemes perform the measures too. We argue that the latter is the case for the introduction of multidimensionality in the case of GNCTD. Thus, specific socio-technical agencements promote this sort of co-performation.

“While acknowledging the multi-dimensional nature of poverty, the estimates of poverty will *continue* to be based on private household expenditure of Indian households as collected by the National Sample Survey (NSS) Organisation (NSSO).” (Planning Commission (2009), p. 1)

Without explicit depiction of intermediaries and feedback loops, we will not know the finer contours of the network evident in the Planning Commission reports; but for the argument to be made later on, this is not essential. We observe 7 objects viz. Planning Commission, Poverty alleviations plans, NSS survey, Past NSS data, Price Indices, Poverty measures, and Taskforces that constitute the network constellation for the creation of poverty lines. The majority of the agencement assemblage (let’s call it PC), as it were, is covered by these 7 objects. A brief introduction to their sociotechnical relations have already been told in Section 2.

Similarly, from the project, we see the following objects in the network –IDF, GNCTD, Mission Convergence, UNDP, the new cash transfer scheme, SSS survey data, and Alkire and Foster (2008) (let’s call this network GNCTD-IDF). Mission Convergence is a very important cog in the network as GNCTD approached IDF for the project through this Mission formed in 2008.⁴⁷

We argue that there was a ‘disentanglement’ in GNCTD-IDF by which schemes and targeting could be separated and then, poverty targeting could be transformed through the imperatives of the scheme. The process of transformation was possible through two other foreign objects in the network that were hidden in the description above. The first is *bolsa familia*, a conditional cash transfer initiative of the government of Brazil whereby vulnerable households are incentivized to promote health and education goals. Mission Convergence got a grant from the World Bank (which constitutes the second) due to its demonstration of community outreach and gender empowerment programs. As part of the award, tours to Brazil of high level GNCTD officials to learn from each other’s experiences resulted in Mission Convergence getting interested in the use of cash transfer schemes for social protection.

“Since the vulnerability based approach of Mission Convergence in identifying the poor is ultimately aimed to converge service delivery, currently operating through cross-cutting Departmental structures, a roadmap is being developed for the Mission to institutionalize the Conditional Cash Transfer (CCT) system in Delhi based upon the learning from the Latin American Region, where the phenomenon of cash transfer to the poor has actually followed considerable efforts towards convergence of social sector schemes, similarly operating through multiple Departments.”⁴⁸

⁴⁶ Although a multidimensional poverty index in the lines of Alkire and Foster (2008) has made its way into the recent Economic Survey (2010-11) brought out by the Govt. before annual budget sessions.

⁴⁷ Mission Convergence or Samajik Suvidha Sangam was launched on 14th August 2008 as a registered trust working under GNCTD to coordinate the public-private participation mediated welfare schemes. They, through various NGO outreach centres across Delhi provide single window access facilities to people identified as vulnerable.

⁴⁸ As mentioned in the Mission Convergence document on International Collaboration, <http://www.missionconvergence.org/international-collaboration.html>, (accessed 29th May, 2011)

This had important implications in terms of the disentanglement process claimed above. This was possible by the creation of political will for instituting a new type of scheme (CCTs) in the background of ‘convergence’. Now, if ‘convergence’ is the aim, we have to transform the extant benefit-beneficiary space as shown in the Section on rationalization. In a higher plane, where multidimensionality is the only answer, newer poverty targeting practices have to be created. This is the second part of the evidence for performance we had set out to see. The first, is what was empirically shown in Section-3, where a different notion in theory (multidimensionality) gets illocutionally force by modifying the targeting norms and eventually creates newer categories of the poor.

To explain the inertia in the face of existing theory and explicit show of interest in implementing the multidimensional measures in the network PC could also be argued through a process of systematic opposition to any attempt at disentangle poverty targeting from the schemes. This is done in the name of continuity and comparability.⁴⁹

Finally, we will take a cue from the study of experimental economics and form an argument as to why GNCTD-IDF could accommodate the innovation. Conditional Cash Transfer schemes have traditionally been preserves of experimental economics. Randomised Control Trials and other such laboratory conditions were responsible (largely) in tilting the public opinion to these newer methods (Kanbur (2009)). One ways theory performs objects is to create laboratory conditions outside the laboratory. Randomised Control Trials (RCTs) create the most incontrovertible theory-like setting to test the effectiveness of a study. To gain legitimacy CCTs further take the help of independent and transparent peer review and impact evaluation. Therefore, a lot of CCTs are ‘designed’ with embedding of conditions creating laboratory like situations in its implementation. The design of the schemes are further associated with a ‘baseline’ information in the form of a survey before the schemes are rolled out.

Now, can we not add two and two and conclude IDFs role in the lines of Robert K. Merton’s “self-fulfilling prophecy” of the CCTs we were seeking to implement?

⁴⁹ For example, see the number of papers opposing an innovation in the form of a newer recall period for NSS 55 Round (1999-2000)

Reference:

- Alkire, S. and Foster, J., (2008), 'Counting and Multidimensional Poverty Measurement', *OPHI Working Paper*, OPHI, Oxford
- Atkinson, A. B., (2003), 'Multidimensional Deprivation: Contrasting Social Welfare and Counting Approaches', *Journal of Economic Inequality*, 1, 1, 51
- Austin, J. L., (1962), *How to do Things with Words: The William James Lectures delivered at Harvard University in 1955*. Ed. J. O. Urmson, Clarendon Press, Oxford
- Banerjee, A. and Duflo, E., (2008), *An experimental approach to development economics*, Working Paper, Massachusetts Institute of technology, Department of Economics and Abdul Latif Jameel Poverty Action Lab
- Barnes, B., (1993), 'Social Life as Bootstrapped Induction', *Sociology*, 17, 524-545
- Bourguignon, F. and Chakravarty, S. R., (2003), 'The Measurement of Multidimensional Poverty', *Journal of Economic Inequality*, 1, 1, 25-49
- Butler, J., (1990), *Gender Trouble: Feminism and Subversion of Identity*, Routledge, Chapman and Hill, New York
- Butler, J., (1997), *Excitable Speech: A Politics of the Performative*, Routledge, London
- Callon, M. (ed.), (1998), *The Laws of the Markets*, Blackwell Publishers, London
- Callon, M., (2007), 'What does it Mean to Say that Economics is Performative?' in MacKenzie, D. et al edited (2007), Princeton University Press, Princeton
- Comim, F., Qizilbash, M and Alkire, S. Ed., (2008), *The Capability Approach: Concepts, Measures and Applications*, Cambridge University Press, Cambridge
- Didier, E., (2007), 'Do Statistics "Perform" the Economy?' in MacKenzie, D. et al edited (2007), Princeton University Press, Princeton
- Dubey, A. and Gangopadhyay, S., (1998), *Counting the Poor*, Sarvekshana, New Delhi
- Fukuda-Parr, S (2003), *The Human Development Paradigm: Operationalizing Sen's Ideas on Capabilities*, *Feminist Economics* 9 (2 – 3), 301 – 317
- Ghosh, J. K. et al, (1999), 'Evolution of Statistics in India', *International Statistical Review*, 67, 1, 13-34
- GNCTD, <http://www.delhi.gov.in/wps/wcm/connect/06585f80425a2cfc534bdb0d5f7ce2c/9General+Education+%5B7930%5D.pdf?MOD=AJPERES&CACHEID=06585f80425a2cfc534bdb0d5f7ce2c> (accessed on 10th September 2010)
- Hacking, I., (1983), *Representing and Inventing: Introductory Topics in the Philosophy of Natural Science*, Cambridge University Press, Cambridge
- Haq, M. ul, (1995), *Reflections on Human Development: How the focus of development economics shifted from national income accounting to people centered policies, told by one of the chief architects of the new paradigm*, OUP, Oxford
- Kakwani, N. and Silber, J. (Ed.), (2007), *Many Dimensions of Poverty*, Palgrave-Macmillan
- Kanbur, R., (2009), 'Poverty Distribution: Twenty Years Ago and Now', Working Paper, 2009-03, Department of Applied Economics and Management, Cornell University, New York
- Latour, B., (1999), *Pandora's Hope: Essays on the Reality of Science Studies*, Harvard University Press, Cambridge Massachusetts
- MacKenzie, D. and Millo, Y., (2003), 'Constructing a Market, Performing the Theory; Historical Sociology of a Financial Derivatives Exchange', *American Journal of Sociology*, 109, 107-145
- MacKenzie, D., (2003), 'An Equation and its Worlds: Bricolage, Exemplars, Disunity and Performativity in Financial Economics', *Social Studies of Science*, 33, 831-868
- MacKenzie, D., Muniesa, F., and Siu, L. (Ed.), (2007), *Do Economists Make Markets: On Performativity of Economics*, Princeton University Press, Princeton
- Merton, R., (1968), *Social Theory and Social Structure*, Free Press, New York

- Miller, D. (2002), 'Turning Callon the Right way Up', *Economy and Society*, 31, 218-233
- Minhas, B. S. et al, (1988), 'Measurement of General Cost of Living for Urban India and Different States, *Sarvekshana*, 11, 1-23, July
- Minhas, B.S. et al, (1990), 'Rural Cost of Living (1970-71 to 1983): States and All India", *Indian Economic Review*, 25, 1, 75-104, Jan-June
- Minhas, B.S. et al., (1987), 'On the Choice of Appropriate Consumer Price Indices and Data Sets for Estimating the Incidence of Poverty in India', *Indian Econfolk Review*, 22, 1, Jan-June
- Perspective Planning Division (1979), Report of the Task Force on Projection of Minimum Needs and Effective Consumption Demand, Planning Commission
- Perspective Planning Division, (1979), Report of the Task Force on Projection of Minimum Needs and Effective Consumption Demand, Planning Commission, New Delhi
- Perspective Planning Division, (1993), Report of the Expert Group on Estimation of Proportion and Number of Poor, Planning Commission, New Delhi
- Pickering, A., (1995), *The Mangle of Practice: Time Agency and Science*, University of Chicago Press, Chicago
- Planning Commission, (2009), Report of the Expert Group to Review the Methodology for Estimation of Poverty, Planning Commission, New Delhi
- Searle, J., (1969), *Speech Acts: An Essay in the Philosophy of Language*, Cambridge University Press, Cambridge
- Sen A., (1992), *Inequality Reexamined*, OUP, Oxford
- Sen A., (2000), 'A decade of human development', *Journal of Human Development*, 1, p. 17.
- Sen, A. (1980), *Equality of What?, Tanner Lectures on Human Values*, S. McMurrin (ed.), Cambridge University Press, Cambridge
- Sen, A. and Dreze J., (1995), *India: Economic Development and Social Opportunity*, OUP, Oxford
- Sen, A. and Foster, James, (2010), *On Economic Inequality: Expanded Edition*, OUP, New Delhi
- Sen, A., (1973), *On Economic Inequality*, OUP, Oxford
- Sen, A., (1976), 'Poverty: An Ordinal Approach to Measurement', *Econometrica*, 46: 437-446.
- Sen, A., (1981), *Poverty and Famines*, ILO., Geneva
- Sen, A., (1999) *Development as Freedom*, Knopf Press, New York
- Sen, A., (2005), 'Human rights and capabilities', *Journal of Human Development*, 6, pp 151-66.

Appendix

Table A1. The schemes in Education

Code	Name of Scheme	Department	Objective	Eligibility and Benefits
S6	Sarva Shiksha Abhiyan (Universalisation of Elementary Education in Delhi)	Directorate of Education	To bring out-of-school children in age group 6-14 years into main education stream and provide elementary education. A centrally sponsored scheme, with expenditure shared between the centre and state in the ratio of 60:40.	Civil works, out-of-school strategies, remedial teaching, teachers salary, free textbooks, teachers training, teachers grant, school grant, maintenance grant, community training, Block Resource Centers (BRCs), Cluster Resource Centers (CRCs), learning enhancement programme, Research, Evaluation, Monitoring, and Supervision (REMS)
S14	Financial Assistance/Scholarship for Students of Economically Weaker Sections	Directorate of Education	To provide financial assistance to students of weaker sections to enable them to pursue higher education courses	Family income not exceeding Rs 1 lakh per annum Financial assistance of Rs 1000 per academic month (July to April per year) and tuition fee for students scoring 50% with no back papers and 75% attendance in each year.
S15	Lal Bahadur Shastri Scholarships to Meritorious Students	Directorate of Education	To give recognition and financial help to meritorious students of economically weaker sections of society	Family income not exceeding Rs 1 lakh per annum Rs.400/- p.a to students of classes VII & VIII Rs.600/- p.a to students of classes IX and X Rs.1550/- p.a to students of classes XI and XII
S17	Improvement of Science Teaching	Municipal Corporation of Delhi	To develop a scientific temperament among students	Equipment/furniture, tours and fairs, training to teachers and staff, in-service seminars, science projects, children camps, remedial teaching
S18	Rashtriya Madhyamik	Directorate of	To achieve universal	Rooms, teachers, and

	Shiksha Abhiyan	Education/Department of School Education and Literacy under Ministry of Human Resource Development	access and quality secondary education	other educational facilities
S82	Financial Assistance for Purchase of Stationary etc. to SC/ST/OBC/Min. Students	Department for the Welfare of SC/ST/OBC/Minorities	To help poor students by providing them financial assistance for purchase of stationery so that their parents do not feel any burden in sending their children to schools.	
S83	Merit Scholarship to SC/ST/OBC Minorities (Class VI to XII)	Department for the Welfare of SC/ST/OBC/Minorities	To promote talent among the SC/ST/OBC/Minorities students enabling them to face the competitive world in a befitting manner	Financial incentives in the form of merit scholarship is provided to students in classes VI-XII.
S93	Laadli Yojana	Department of Women and Child Development	To ensure proper education & to make the girl child self-reliant; to ensure economic security for a girl child & to protect the girl child from discrimination & deprivations.	Family income not exceeding Rs 1 lakh per annum The girl child must have been born in Delhi as shown by the birth certificate issued by Registrar (Births & Deaths), studying in Govt./MCD/NDMC or Govt. recognized school in Delhi, who have been admitted in Classes I, VI, IX, or XII or passed Class X in the academic year 2009-10 onwards, whose parents have been residing in Delhi for at least 3 years prior to the date of application, All such girl children shall receive payments of Rs. 5,000/- at every stage in the form of long-term fixed deposits. The above-mentioned deposits shall be encashable only after the child attains 18 years and has at least passed Class X.