Safety net programs in West Bengal: how much effective?

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Abstract

Purpose – The purpose of this paper is to find the determinants of participation and targeting efficiency of the following safety net programs in West Bengal: Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), self-targeted program; National Rural Livelihood Mission (NRLM), subsidy based livelihood program; Indira Awaas Yojona (IAY), targeted cash transfer program and Public Distribution System (PDS), targeted in kind transfer program.
Design/methodology/approach – The study is based on a household survey comprising 900 households across three Districts: Murshidabad, Nadia and Burdwan.
Findings – Benefits from MNREGA and PDS are not substantial, whereas financial benefits are substantial from NRLM and IAY. This paper shows that poor people have higher likelihood of participation in MNREGA and PDS. But, non poor get disproportionate benefits from IAY and NRLM both have been designed for the poor. Therefore, targeting cannot remove elite capture altogether. Socially down trodden section have higher participation in MNREGA and PDS, whereas people who are at upper tier of social hierarchy enjoy the benefits of IAY and NRLM. However, it cannot be said that these programs miss their target completely.
Practical implications – The study suffers from the usual limitations of sampling.
Social implications – Programs targeted for the poor are being appropriated by the non poor. If there is better targeting money will be channelized to the desired beneficiaries and welfare will be enhanced.
Originality/value – The study has unearthed the underlying reasons behind why some safety net programs have better targeting and some safety net programs have poor targeting.
Keywords Targeting, Poverty, Public policy, Safety net
Paper type Research paper

1. Introduction

Safety nets are programs that protect a person or household against two adverse outcomes: chronic incapacity to work and earn (chronic poverty) and a decline in this capacity from a marginal situation that provides minimal means for survival with few reserves (transient poverty) (Dev *et al.*, 2007). A chronic incapacity to work or earn will usually result from physical or mental disability, long-term illness, or old age. A decline in the capacity to work is usually caused by imperfectly predictable life-cycle events (such as the birth of twins or a sudden death of a bread-winner); a sharp fall in aggregate demand or expenditure shocks (through economic recession or transition, during unavoidable cutbacks in public spending, as a result of a decline in production in sectors from which workers are immobile); or poor harvests (due to drought, flood, or pests, especially when they affect prices and production over a wide area), which cause the rural poor to lose the usual sources of protection offered by informal transfers (Subbarao *et al.*, 1997).

There are numerous examples, both contemporary and historical, of purposeful large scale community-based targeting for social safety nets. Arguably, one of the earliest and most studied examples of a community-based targeting mechanism was the English system of poor relief. For several hundred years until the reforms of 1834, the English Poor Laws implemented a highly decentralized system of poor relief administered and financed by local parishes. Although the parish began as a local church institution, by the 16th century the estimated 12,000-15,000 parishes in England had assumed many of the functions of local

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civil government including the administration of poor relief. Each parish was responsible for deciding who was unable to work and deserving of relief, and for financing and delivering assistance (Mencher, 1967).

Common sense and substantial evidence suggest that community participation can lead to improved project performance and better targeting (Baland and Platteau, 1996; Isham *et al.*, 1997; La Ferrara, 1999; Narayan and Pritchett, 1997; Wade, 1988). For example, a study of India's Integrated Rural Development Project found that Indian states that employed village councils to select beneficiaries had a much smaller proportion of non poor participating households. A survey of dozens of country experiences with social safety nets conducted by Subbarao *et al.* (1997) for the World Bank contends that programs that involve communities, local groups, and nongovernmental organizations (NGOs) can achieve better targeting outcomes. Perhaps the simplest but most persuasive illustration of the potential benefit of community-based targeting is the increasingly prevalent practice in many poverty- alleviation programs of delivering family and child assistance via a female parent. Many empirical studies now confirm that assistance delivered via a female parent leads to a larger positive impact on child welfare and household investments in health, nutrition and education than the same resources delivered via a father (Pitt and Khandker, 1998). Thus, the use of categorical targeting of women may be thought of as a form of community- based targeting where children are the ultimate target beneficiaries, and mothers are the chosen intermediary agents within the household community (Conning, 1999).

To raise the living standard of the poor the government can take either broad targeting or narrow targeting. Each approach has benefits and costs to the poor and to others. It is often claimed that narrow targeting of the poor will allow governments to reduce poverty more effectively and at lower cost. But narrow targeting has also hidden costs, and once these costs are considered, the most finely targeted policy may not have any more effect on poverty than a broadly targeted one. While targeting is a potential instrument for enhancing program impact on poverty, the most targeted program needs not be the one with the greatest impact on poverty (Van de Walle, 1998). This can happen when finer targeting undermines political support for the required taxation (Besley and Kanbur, 1993; Gelbach and Pritchett, 1997), or when targeting generates deadweight losses (Ravillion, 1993). Reducing poverty calls for broadly targeted social sector spending combined with narrower targeting of cash and in-kind transfers to specific groups. It is also important for governments to experiment with schemes that offer better incentives, to carefully monitor the costs and outcomes, and to be flexible and pragmatic in their policy responses (Van de Walle, 1998). It should not be forgotten that the scope for efficient redistribution and insurance of safety net is constrained by the information available and administrative capabilities for acting on that information. Problems of information and incentives are at the heart of policy design. The paper has been organized as follows: Section 2 describes four types of safety net programs in brief. Section 3 describes methodology. Section 4 deals with access of safety net programs; and Section 5 deals with Targeting efficiency and conclusions/policy implications.

2. Features of safety net programs
Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA)
The MNREGA was notified on 5 September 2005. In February of 2006, NREGA was initially launched in 200 poorest districts of India (phase I). It was later extended to 130 districts in May, 2007 which is recognized as phase-II. The remaining districts came under MGNREGA by April of 2008 in the Phase III. Thus, MGNREGA covers the entire country with the exception of districts that have a hundred percent urban population (Dey, 2010).

Under this act, any adult from a household living in rural areas, willing to do unskilled manual labor at statutory minimum wage is entitled to be employed for at least 100 days a year on public works. One striking feature of the program is its decentralized nature, where administration and allocation of works are carried out by the elected local authorities of the respective villages. Adult members of a rural household, who are willing to do unskilled manual work, would have to apply for registration in the Gram Panchayat (GP)[1]. After verification of the place of residence and age of the adult members, the household is issued a job card, which is mandatory for households to work under the program. An application has to be made to the GP or MGNREGA supervisors if the household want work, indicating the time and duration of work. Against this application, the GP has to provide work to the household within 15 days, failing to which an unemployment allowance has to be paid. One of the key features of MGNREGA that makes it different from previous public works programs is that it allows for women-specific provisions. MGNREGA mandates 33 percent participation of women, and that men and women are paid equally (Government of India, Operational Guideline MGNREGA, 2005). All state governments follow the MGNREGA mandate with some modifications to suit the local needs.

The West Bengal Rural Employment Guarantee Scheme (EGS) was framed to provide employment as per Section 4(1) of the National Rural employment Guarantee Act, September, 2005. The WBREGS came into force from February, 2006. It was enforced in different parts of the states in three phases.

The number of job cards issued in West Bengal by the mid of the year 2015-16 has been 120.41 lakhs[2]. Total number of workers employed is 265.71 lakhs of which 26.34 percent is Scheduled Castes (SC)[3] and 7.79 percent is Scheduled Tribes (ST). However, 71.46 lakhs are active job card holders. It implies a significant number of job card holders are not participating in MNREGA. Person days generated in the State were 1697.51, 2296.34 and 2018.42 lakhs, respectively, in the financial year 2014-15, 2013-14 and 2012-13. SC person days as percentage of total person days were 32.29, 33.49 and 32.53 in financial years 2014-15, 2013-14 and 2012-13 respectively. For ST these figures are 8.45, 9.65 and 9.96 percentage, respectively. Women are also well represented in the MNREGA. For women program participants these figures are 1.34, 35.7 and 33.71 in the financial year 2014-15, 2013-14 and 2012-13, respectively. Though the act ensured 100 days of employment, however, the average day of employment provided to the households in West Bengal are 33.15, 37.44 and 34.7, respectively, in the financial year 2014-15, 2013-14 and 2012-13. In these three consecutive years the government in West Bengal has been able to provide 1,58,290; 2,80,627; and 2,53,088 households 100 days of employment. Therefore there are clear mismatches across job card holders, active job card holders and number of day's employment provided. Total expenditures in MNREGA were Rs4,01,614.71/3,72,517.24 and 3,85,087.42/lakhs in 2014-15, 2013-14 and 2012-13 financial years, respectively. Therefore, in 2013-14 the MGNREGA did better in West Bengal compared to other two financial years (Government of India, Ministry of Rural Development, 2015).

The districts which are more urbanized and those areas of such districts which are within the jurisdiction of Kolkata Metropolitan Development Authority, have comparatively low demand for registration as well as employment. Based on the demand for work for at least ten registered persons, a scheme may be taken up at the GP level as per the NREG Act. Out of the thirteen districts where demand for employment increased compared to previous year, the achievements of the districts of Malda, Murshidabad, Birbhum and North 24 Parganas are higher in this respect. In general, the demand for employment for regions around Kolkata is lower for obvious reasons. Performance of West Bengal is not satisfactory in terms of implementation of the program.

National Rural Livelihoods Mission (NRLM). NRLM was launched by the Ministry of Rural Development, Government of India in June 2011. Aided in part through investment

support by the World Bank, the Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.

Financial assistance in form of revolving fund (RF), vulnerability reduction fund (VRF), and community investment fund (CIF) is provided to the community based organizations. NRLM does not provide direct financial support to individual members:

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(1) RF: NRLM provides RF support to Self Help Groups (SHGs) in existence for a minimum period of 3/6 months and follow the "Panchasutra" – regular meetings, regular savings, regular internal lending, regular recoveries and maintenance of proper books of accounts. Only such SHGs[4] that have not received any RF earlier will be provided with RF, as corpus, with a minimum of Rs10,000 and up to a maximum of Rs15,000 per SHG. The purpose of RF is to strengthen their institutional and financial management capacity and build a good credit history within the group (Government of India, NRLM, 2015).

(2) VRF: VRF, to the tune of Rs1,500 per member, is provided to the SHG Federations at the village level in the intensive blocks. VRF will be used for addressing the vulnerabilities of the members like food security, health security etc., and for meeting the needs of the vulnerable persons in the village.

(3) CIF: CIF, to the tune of Rs3,000 per SHG member, is provided to the cluster level federations (CLFs) in the intensive blocks, to be maintained as resource in perpetuity by the CLF. The CIF is used, by the federations, to advance loans to the SHGs and/or to undertake the common/collective socio-economic activities. Initially, in the absence of emergence of CLF, the CIF to the tune of Rs50,000 is given to SHG directly on developing its micro-credit plan/micro-plan, to be repaid to CLF via SHG Federation at the village level.

(4) Interest subvention[5]: NRLM has a provision for interest subvention, to cover the difference between the lending rate of the banks and 7 percent, on all credit from the banks/financial institutions availed by women SHGs, for a maximum of Rs3,00,000 per SHG.

This flagship program has subsequently been launched as "Anandadhara" on 17 May, 2012 by the hon'ble chief minister of West Bengal. Anandadhara aims to ensure that at least one member from each of the identified poor rural household is brought under the SHG[6] network in a time-bound manner, thereby benefitting the poor in a number of ways. However, the SHG movement in West Bengal predates NRLM and under the previous Swarnajayanti Gram Swarozgar Yojona program, SHGs were nurtured by the District Rural Development Cell. In the Table I features of SHG and different tires of SHG are given.

In West Bengal, there are 412,535 SHGs, and 53 Maha Sanghas, the highest tire. Nadia district ranked first in forming SHGs (41,278) under NRLM. Murshidabad, Hoogly and Paschim Medinipur also scored well in this arena. Darjeeling district has only 2,417 SHGs. Government has to put more emphasis in forming SHGs in Darjeeling.

To make credit accessible to the SHGs at large, engagement of a special type of community cadre in the name of CSP (Bank Linkage) by each Sangha and placing them at the Bank branches for facilitating SHG-Bank Linkage has been initiated. Further, to facilitate the repayment of credit taken by SHGs, the Community Based Repayment/Recovery Mechanism has also been triggered. The physical progress in SHG-Bank linkage under NRLM is shown in Table II:

Under NRLM, the SHG-Bank linkage target was Rs1018.8 crore whereas Rs989.52 crore credits were disbursed. Therefore, the achievement was only 97.13 percent.

District	No of SHGs	No of Upa-Sangha[a]	No of Sanghas	No of Maha Sanghas
Cooch Behar	18,457	1,525	128	1
Birbhum	22,887	1,610	167	5
Purba Medinipur	29,240	2,416	223	15
Jalpaiguri	15,613	961	86	2
Alipurduar	10,897	702	66	0
Malda	17,166	1,191	146	1
Purulia	19,899	1,719	168	2
South 24 Parganas	22,966	2,257	235	0
Bankura	22,775	1,730	179	1
Burdwan	21,569	2,052	199	2
Dakshin Dinajpur	12,380	924	65	4
Darjeeling (GTA)	2,417	483	76	0
Hooghly	35,246	1,038	115	1
Howrah	12,623	1,108	128	5
North 24 Parganas	22,169	1,953	164	0
Siliguri MP	4,015	256	22	0
Uttar Dinajpur	11,744	948	98	9
Paschim Medinipur	30,656	2,756	258	5
Nadia	41,278	1,584	185	0
Murshidabad	38,538	2,590	222	0
Total	412,535*	29,803	2,930	53

Notes: [a]Upa Sangha is formed by taking some SHGs. Sangha comprises some UpaSangha and Maha-Sangha is the agglomeration of Sanghas; *Provisional data from SHG Database (WBSRLM, March, 2015)

Table I.
SHGs and its different organizations across different districts of West Bengal

Target – 2014-15	Achievement up to 31st March 2015		
Under NRLM	No. of SHGs	Credit Disbursed	% Achievement
Rs1018.80 Crores	1,29,343	Rs989.52 Crores	97.13%

Table II.
The physical progress of SHG-Bank linkage under NRLM

Indira Awaas Yojona (IAY)

Government of India since independence has a number of developmental programs for the rural areas, particularly for the rural poor living below poverty line (BPL). Policy legislations have been incorporated and planning process has been administered for improving the housing situation in the country. Having taken the problem of houseless seriously, Government of India with a view to provide houses to the SC, ST and Freed Bonded Laborers living BPL, launched IAY in 1985-86, as a component of Rural Landless Employment Guarantee ProgramRLEGP. In 2015, IAY has been restructured and named Pradhan Mantri Awas Yojna.

Under the scheme, financial assistance worth Rs70,000US$1,000 in plain areas and Rs75,000US$1,100 in difficult areas (high land area) is provided for construction of houses. The houses are allotted in the name of the woman or jointly between husband and wife.

IAY is being implemented by the state governments through the District Rural Development Agencies/Zilla Parishads[7] throughout the country. From 1995-96, the benefits of IAY have also been extended to widows or next-of-kin of defense personnel and paramilitary forces killed in action irrespective of the income criteria, ex-servicemen and retired members of the paramilitary forces as long as they fulfill the normal eligibility conditions of the IAY subject to the condition that they should reside in rural areas. They have not been covered under any other scheme of shelter rehabilitation. They should be houseless or in need of shelter or shelter up-gradation.

Funds to the tune of 3 percent have been earmarked for the benefit of BPL physically and mentally challenged persons. The reservation of three percent of the funds under IAY for below the poverty line physically and mentally challenged persons is a horizontal reservation, i.e. physically and mentally challenged persons belonging to sections like SCs, STs and others would fall in their respective categories. Progress report of West Bengal in IAY scheme is given in Table III.

Total allocation for IAY was more than Rs2,554 crore. A sizeable section of the benefit is supposed to go to SC, ST and minority community (Government of India, IAY guideline, 2014).

Public Distribution System (PDS)

Of all the safety net operations, the most far reaching is the PDS. The PDS provides basic items such as rice, wheat, sugar, and non-food items such as kerosene in rationed amounts at below market prices. The program originated in the early period after Independence, when food shortages required large imports of food under the PL-480 grants from the USA. The PDS has changed both qualitatively and quantitatively since the 1970s. At first, the PDS was confined to urban areas and regions with food deficits. Although rural areas were covered in many states in the 1980s, the PDS had an urban bias and large regional inequalities in its operation. An effort was made, therefore, to streamline the PDS by introducing the Targeted Public Distribution System (TPDS) in June 1997. The objective was to help very poor families buy food grains at a reasonably low cost so that they would improve their nutrition standards and attain food security. The new system follows a two-tier subsidized pricing structure, one for BPL families, and another for above poverty line (APL) families. The Union Budget 2000-01 announced a monthly allocation of 25 kg of food grains to about 60 million BPL families under the TPDS. The issue price of food grains for BPL families is fixed at 50 percent of the economic cost that the APL families pay, and all prices are revised by the Food Corporation of India from time to time. The total food subsidy (including programmes other than PDS) has significantly increased in real terms over the years. In order to target the TPDS more towards the poor, the Antyodaya Anna Yojana was launched in December 2000. This scheme sought to identify the ten million poorest of the BPL families and provide them each with 25 kg of food grains per month at a fixed price of Rs2 per kg for wheat, and Rs3 per kg for rice (IHDS, 2014).

The new incarnation of PDS is "National Food Security Act (NFSA)".The NFSA became law in 2013, but only a few states have implemented it so far. In West Bengal, the implementation of the act officially supposed to begin from September, 2015. However, due to furor over the anomaly of distribution of digitized ration card, the implementation of NFSA is at jeopardy.

3. Methodology

All Districts of West Bengal have been clubbed in three strata using "District Level Human Development Index (HDI)" score: high HDI districts; medium HDI districts and low HDI districts. From each stratum one district has been chosen randomly. The selected districts are: Burdwan, Nadia and Murshidabad. This paper examines some aspects of safety net programmes in these three districts based on household (hh) and village surveys. A special

Year	Total allocation for target (in Rs lakh)	Physical target	SC	ST	Minority	Others
2015-16	255414.05	364,877	151,693	73,447	64,433	75,304

Note: Allocation and target across social groups in West Bengal

Table III.
Progress report of
IAY scheme
in West Bengal

household survey was conducted in these three districts in 2014-15. Two blocks from each district and, five villages from each block were selected. At the village level, in order to identify beneficiary households of the safety net programs, we first conducted survey of all households using a brief questionnaire. From this survey, we identified beneficiaries of the safety net programs. In every village participating households are chosen randomly among program participants, and non-participating households were chosen randomly from non-participating households using PPS method. In PPS method number of households to be selected from each village depends on total number of program participants and non participants. Thus we have a total of 900 sample households comprising 540 program participating households and 360 non-participating households. Focus group discussions in the village (separately for men and women) include interviews with panchayat members, officials and NGOs. The collected data at the household level enabled us to construct indexes on social capital and women empowerment.

All households have been classified in five classes: poor, marginal, vulnerable, middle income and higher income using monthly per capita consumption expenditure[8].

In our sample, poor households along with vulnerable and marginal constitute more than 80 percent of the total households. Again, SCs and Muslims together account for about 68 percent of households and the percentage is significantly higher among the poor and the marginal households. Finally, 44 percent of the households have agriculture as their primary occupation. Maximum education in a household refers to the maximum completed years in school across all members of the households. Table IV shows characteristics of sample households.
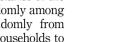
4. Access of the safety net programs
Interaction between access to safety net programs and poverty status
Poor should get the benefits of the anti-poverty programs. We have stratified all households in five strata. Following table shows distribution of beneficiaries across five strata. For MGNREGA and PDS the poor accounts for the bulk of participants. A high proportion of IAY and NRLM beneficiaries belong to the higher income class. It is evident that with few exceptions, most anti-poverty programs are reaching the poorest quartile as well as not-so-poor quartiles – thus confirming the widely acknowledged fact of poor targeting. Table V shows Distribution of Participants by Poverty Status.

Poverty Status	% in Sample	Age	% Male	Maximum Education in Household	% Muslim	% SC	% Agriculture Occupation
Poor	54.13	39	86	4.8	44	31	28
Marginal	24.32	44	91	10.5	41	38	56
Vulnerable	5.64	46	93	13.4	17	13	74
Middle Income	8.32	37	94	13.8	22	18	79
High income	7.59	58	88	14.6	26	17	56
All	100	41.6	88.5	8.18	38.5	29.7	44.6

Table IV.
Characteristics of sample households

Program	Poor	Marginal	Vulnerable	Middle income	Higher income	Total
MGNREGA	64.3	26.72	5.52	2.2	1.26	100
NRLM	42.27	16.25	6.57	16.68	18.23	100
IAY	44.51	20.13	6.11	13.72	15.53	100
PDS	61.33	25.47	6.18	4.6	2.42	100

Table V.
Distribution of participants by poverty status: all districts (percent)

Interaction between accessing safety net programs and socio religious communities (SRCs)
In an extremely caste and religiously divided society the fruits of development may not be accessed evenly across all socio religious groups. In this section we want to unearth the accessibility of the safety net programs across SRCs[9] is shown in Table VI.

General Brahmin caste has lower affinity to participate in low waged self-targeting program like MNGREGA. Only 8 percent of the participants belong to Brahmin community whereas 3.3 percent of the sample households belong to Brahmin community. They enjoyed disproportionate higher benefits in NRLM and IAY. General Brahmin caste participation is low in PDS also. Members of General non Brahmin community are not very keen to participate in low waged self-employment scheme MNREGA or PDS. SC and ST communities have participated more vigorously in MNREGA and PDS. Members of ST communities enjoy disproportionately lower share in other two programs. Members of Muslim community has proportionate share in all the safety net programs. Down trodden section of the society has overwhelming presence in low waged self-targeted job MNREGA and PDS, but that is not reflected in other two programs.

Determinants of participation in safety net program
Whether a person will participate in a particular safety net program depend on several factors. We have used logit model to decipher the factors that determine the likelihood of participation in safety net programs. Drawing from the published literature on safety net (Dev *et al.*, 2007; Dey, 2010; Subbarao *et al.*, 1997) and taking into account the Indian context, we have incorporated a number of controls in evaluating the likelihood of participating the Safety net programs. These include socio-economic and demographic characteristics of the household. For each of these programs, we have separately estimated logit Model. Our required model is:

$$Y_i = \alpha + \beta X_i + \gamma Z_i + \delta W_i + \zeta_i$$

If the "*i*" th household participates in the program then *Y* takes value 1 otherwise 0. *X* is the socio religious status of the household, *Z* indicates economic status of the household in terms of monthly per capita consumption expenditure, *W* indicates all other explanatory variables those influence the participation decision of the "*i*"th household. ζ is white noise term. Others are parameters to be estimated.

Monthly per capita consumption expenditure: households have been categorized in five classes in terms of monthly per capita consumption expenditure: poor, marginal poor, vulnerable, middle income and upper income. This is a categorical variable in nature.

SRCs	% of households in total sample (hh = 900)*	% of households accessing MNREGA (hh = 540)**	% of households accessing NRLM (hh = 430)**	% of households accessing IAY (hh = 280)**	% of households accessing PDS (hh = 540)**
General (Brahmin)	3.30	0.80	4.26	3.83	1.2
General (non-Brahmin)	10.25	5.75	14.6	13.15	8.6
OBC*	10.65	9.45	12.6	13.27	10.3
SC	29.7	37.36	24.35	28.26	35.3
ST	7.6	11.24	4.47	5.52	9.8
Muslim	38.5	35.4	39.72	35.97	34.8
Total	100	100	100	100	100

Table VI.
Access of safety net programs across SRCs

Notes: Hindu OBC; *Number of households in the sample; **Number of program participating household

As there are five categories we have four dummies. Upper income has been taken as the reference category. In a pro poor program it is expected that households of higher income class have lower likelihood to participate program.

Socio religious status: to categories the households by social religious status, we have used dummies for caste and religion. The categorical variable for SRCs is coded into six categories-"SC", "ST", "Other Backward Castes" (OBC), "General Castes- Non Brahmin" "General Castes-Brahmin" (this is taken as reference) which represents meaningfully the Indian social fabric along caste lines. Socially oppressed classes are more likely to join the pro-poor program.

Index of social capital[10]: social capital implies networking ability. Access to public goods depends on strong social capital. Therefore our a priori expectation is positive.

Index of women empowerment[11]: empowerment score is calculated for all adult women of the households, and mean of those values are taken. We postulate a positive relationship between women empowerment and participation in safety net program.

Education level: mean years of schooling of the adult members of the household are taken as the explanatory variable. We anticipate a negative relationship between education level and participation in MNREGA, and PDS. Because with education opportunity cost of labor increases, and economically well-off households think it is better to purchase quality food grains from the open market than that from PDS.

Education level^2: as education increases, likelihood of participation in safety net program increases. However, after certain level of education, if education increases likelihood of participation in safety net program decreases.

Household size: generally bigger households are poorer. Therefore, it is expected that bigger households have greater likelihood of participation.

Occupation of the household head: if the occupation of the household head is agriculture than self-employment, then we postulate a higher likelihood of participation in the safety net program. Self-employment has been taken as reference category.

Gender of the household head: women headed households are generally poorer. Therefore women headed households have greater chance of participation in the program. Result of logit regression is shown in Table VII.

Results and explanations
Compared to Brahmin-General community, all other members have higher likelihood of participating in the MGNREGA. SC and ST members have significant higher likelihood of participating in the program. Compared to reference category, members of Non-Brahmin General and OBC categories have significant higher likelihood of participating in the NRLM program. Members of socially down trodden section, i.e. SC and ST communities have lower likelihood of participating in the NRLM. Members of non-Brahmin General and OBC categories have also significant higher likelihood of participating in the IAY program compared to the reference category. Members of ST community have lower chance of getting the benefits of IAY compared to the members of Brahmin community. All SRC members have higher probability of participating in the PDS program compared to reference category, though statistically insignificant.

Compared to higher income households, all households have greater likelihood of participating in MGNREGA. On the contrary, poor and vulnerable households have significant lower likelihood of participating in IAY and NRLM program. However, poor, vulnerable and marginal households are more prone to participate in "Public Distribution System."

Social capital has positive impact in accessing all the four safety net programs. However, beneficiaries having higher social capital have significant higher chance of access to IAY and NRLM programs. Therefore, households who are politically well connected get benefits of IAY and NRLM programs.

Variables		MGNREGA (coefficients)	NRLM (coefficients)	IAY (coefficients)	PDS (coefficients)
SRCs (ref: general-Brahmin)	ST	0.48**	−0.45	−0.27	0.26
	General (non-Brahmin)	0.117	1.1*	0.584*	0.35
	SC	0.453**	−0.26	0.24	0.21
	OBC	0.11	0.87**	0.443**	0.263
	Muslim	0.217	0.65	0.3	0.154
(Ref: higher income)	Poor	0.725*	−0.533*	−0.274**	0.445**
	Marginal	0.644*	0.182	0.568*	0.371***
	Vulnerable	0.602*	0.241	0.574*	0.374***
	Middle income	0.226	0.185	0.348	0.131
Other household variables	Social capital	0.478	2.11*	0.278**	0.16
	Women empowerment index	0.058	0.1	0.08	0.02
	Mean education of the household	−0.012	0.5***	0.471***	0.27
	Square of mean education	−0.001	−1.1	−0.005	−0.025
	Household size	0.478	0.758	0.427	0.351
Head characteristic	Occupation of the household head (ref: self-empoyed)	0.258	2.14	1.61	0.682
	Gender of the household head (reference: male)	0.21	0.276	0.57	0.35

Notes: Cox and Snell R^2 0.518, Nagelkarke R^2 0.596. *,**,***Significant at 1, 5 and 10 levels percent, respectively

Table VII.
Determinants of participation in safety net programs

Women empowerment has positive but not significant impact on accessing safety net programs.

Education has significant positive impact on accessing NRLM and IAY, however, negative impact on participating MGNREGA.

Education level^2 has negative impact in accessing all safety net programs. It implies enhancement of education after a certain point makes safety net programs unattractive. This is the nonlinear impact of education on likelihood of participating safety net programs, Household size, occupation of the household head and gender of the household head have positive but insignificant impact on accessing the safety net program.

5. Targeting effectiveness of safety net programs

Most safety net programs are designed for the poor; however those programs may be equally attractive to the non poor. Therefore, targeting needs identification of the poor. Given the asymmetry of information, it is not possible to eliminate cheating without putting some of the honest beneficiaries at considerable risk (on the general problems underlying asymmetric information, see Akerlof, 1978). In trying to prevent the Type II[12] error of including the non poor among the poor, some Type I[13] errors of not including some real poor among the listed poor would undoubtedly occur.

Organizational inflexibility, rigid nature of bureaucracy and sometimes identity based social exclusions are the reasons behind inclusion of the non poor and exclusion of the poor. Another important factor behind accessing the safety net program is political inclination and patron clientilistic relationship between safety net program participants and local political leaders (Dey, 2010). Giraudy (2007) claimed that "there is wide agreement among scholars studying Argentine politics that poor and low-skilled voters are more susceptible to being turned into political clients than higher income/skilled voters". In a more deep rooted study based on the Maharashtra EGS, Patel (2006) has investigated the variety of ways in which the political mobilization of the oppressed takes place and simultaneously examined the manipulations by the ruling Maratha landed caste to disempower and eventually co-opt such struggles in order to perpetuate its own political dominance in Maratha politics.

Bardhan *et al.* (2009) explained the nature of democracy and clientelism behind 34 years left ruling government in West Bengal.

A convenient measure of effective targeting is the strength of the relationship between household poverty and program use. The larger the difference in poverty rates between program users and non-users, the greater the effective targeting of the program. Here I have followed the methodology used by (Suryahadi *et al.*, 1999). This is done through three steps: first, the samples are grouped into five strata of monthly per capita consumption expenditures where the first strata is classified as the poor while the second to fifth strata as non-poor; second, program coverage is calculated for each strata, i.e. the percent of households in each strata which were beneficiaries of the program; and third targeting effectiveness is calculated for each program as the ratio of participation of the non-poor in a program compared to the fraction of non-poor in the sample. The targeting ratio (TR) is defined as: $TR = S_n/P_n$, where S_n is fraction of participants in the program who are non-poor and P_n is fraction of overall sample non-poor. If all recipients of a program are poor households only, which indicates that the program achieves a perfect targeting, then the value of this TR will be zero (since $S_n = 0$). On the other hand, if all recipients of the program are non-poor households only, which indicates that the program misses its target completely, and since non-poor households are 45.87 percent of sample[14], then the value of TR will be equal to 2.18 (since $S_n = 100$ divided by $P_n = 45.87$). Meanwhile, if the distribution of program beneficiaries is the same as distribution of the households in the sample, which indicates that the program has no targeting (e.g. reaches poor and non-poor in equal proportions), then the value of TR will be equal to 1 (since $S_n = P_n$). Targeting effectiveness has been measured in Table VIII. TR is less than 1 for MGNREGA and PDS. It implies that for these programs at least there is some targeting, though that is far from perfect targeting. Financial benefits are not significant from these two schemes. Better off households have apathy toward these schemes. However, for NRLM and IAY the values of TR lie above 1. A beneficiary gets Rs70,000/ in plane area and Rs75,000/ in hilly area in IAY; and significant financial benefits in the form of revolving fund, vulnerability reduction fund, community investment support fund and interest subvention in NRLM. Non poor households are keen to get benefits of these schemes though these schemes are designed for the poor. Non poor have been able to snatch a sizeable section of these benefits. In these two programs distribution of program beneficiaries is the same as distribution of households in the sample. Therefore, it cannot be said that these programs miss their target completely. Targeting effectiveness of safety net program is shown in Table VIII.

6. Conclusions and policy implications

This paper has tried to address two inter-related issues, access and targeting effectiveness, of four major safety net programs in India. Based on primary data collected from three districts of West Bengal, the analysis presented in this paper has shown that MGNREGA and PDS are more likely to be accessed by poorer and socially oppressed households. On the contrary, NRLM and IAY are accessed by richer households. Bulk of the benefits of MGNREGA and NRLM flow to poor households, but a lion share of the benefits of NRLM and IAY has been appropriated by non poor households.

Program	Non poor (participant)	Targeting ratio
MGNREGA	35.7	0.778
NRLM	57.3	1.096
IAY	55.49	1.2
PDS	38.67	0.84

Table VIII.
Targeting
effectiveness of safety
net programmes

Among the factors determining participation of households in these four safety net programs, affiliation to caste and religion has significant impacts. Households of socially oppressed class like SC and ST have higher chance of participating MGNREGA and PDS. Households of lowest three quintiles have significant likelihood of participating in the program. On the other hand, households of upper two quintiles and socially advanced class have greater chance of participating in NRLM and IAY. Social capital has positive impact in accessing safety net programs; however, their impact is significant in accessing IAY and NRLM. It indicates that households use their networking ability to gain entry into those safety net programs having significant financial gain. Another interesting finding is that that the education in the household influences negatively the participation in MNREGA. Nonlinear impact of education is negative across all safety net programs. Households having higher level of education are averse to safety net programs.

Targeting in terms of distribution of beneficiaries by quintile shows that most of the beneficiaries of MGNREGA and PDS are from poorest quintile. A high proportion of beneficiaries of credit based livelihood program NRLM and IAY belong to richest quintile. However, it cannot be said that these programs miss their target completely. Two types of variation are observed in targeting. In broadest program poor households have been benefitted. On the contrary, in the targeted program the benefit incidence of the poor is less. Therefore, targeting does not ensure greater benefits for the poor.

Focus group discussions with program participants, non participants, Panchayat officials, political parties and NGOs revels some phenomena which quantitative analysis cannot. The access to safety net programs depends on education, awareness and social capital. Another important factor is the functioning of Panchayati Raj Institution (PRI). PRI is the implementing agency of safety net programs. Significant discrimination against socially oppressed class and poor is the pervasive feature of local bodies. Though a large number of members of local bodies are poor, however, they are controlled by non poor rural elite members. In low wage based unskilled job like MGNREGA most of the beneficiaries are poor, but in NRLM and IAY non poor households have disproportionate share. Representatives of the NGOs are of the opinion that political interference with poverty based discrimination is a major factor for poor implementation of the safety net program. Neglect of local bodies and lower level bureaucracy is the major cause of poor targeting for IAY and NRLM which involve transfer of large amount of money from the Government to the beneficiaries. Three tires Panchayati Raj System of West Bengal is a paradigm in the country. However, the empowered PRI has not been able to ensure the participation of the poor in those programs exclusively designed for the poor. Pervasive social discrimination is the underlying reasons for this failure. It opens new implementing agency of safety net programs like NGO or SHGs. As SHG members are direct beneficiaries of different safety net programs, therefore if SHGs become implementing agency then targeting may be finer.

Notes

1. The lowest tire of three tire Panchayati Raj System.

2. One lakh means hundred thousand.

3. Schedule Caste (SC) and Schedule Tribe (ST) are socially oppressed classes in social hierarchy.

4. An informal association of 10-15 women from the same socio-economic back ground.

5. Subsidy on interest rate.

6. SHG is an informal association of 10-15 women from the same socio-economic background.

7. Highest tier of the three tier Panchayati Raj System.

8. Here I have used the methodology of Sengupta *et al.* (2008). We have calculated MPCE using 2004-05 price. Sengupta *et al.* (2008) have classified people as "extremely poor," "marginal," "vulnerable," "middle income" and "high income" groups if the monthly per capita consumption expenditures (MPCEs) are less than or equal to Rs269, 348, 438, 609, 1,098, and 2,776, respectively. This categorization is based on the data set available from the surveys of National Sample Survey Organization on employment-unemployment and consumption expenditure in 2004-05. The poverty lines as applicable to data set available from the Employment Unemployment Survey (EUS) turn out to be Rs346.2 for rural areas. But to get parity with the estimate of the poverty line from the consumer expenditure survey (CSE), some adjustments were also made to the estimate of the poverty line from EUS. The adjusted poverty line becomes Rs348 per capita consumption expenditure per month. Classification of people among different economic classes is based on some specified multiple of this poverty line.

9. SRCs comprising Bramhin, OBC, SC, ST and Muslim.

10. Household social capital is computed as involvement of household members in different organizations like "village education council," "Water users association," "festival committee," "local club" and "political parties".

11. Empowerment index has been calculated on the basis of decision making in five aspects: Small Purchase, large purchase, what item to be cooked, no of child to bear, and casting vote at own will.

12. Inclusion of non eligible in the pool of beneficiaries.

13. Exclusion of eligible from the pool of beneficiaries

14. It is evident from the Table IV that 54.13 households are poor.

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