

Consequences of Social Safety Nets Benefits and Causes for Not Included in the Targeted Programmes – A Multivariate Approach

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Social Safety Net Programmes is a set of public measures with the intention to protect the people of the society suffers from various types of economic and social hardship. It is well known that safety net programs are the basis of the country's social protection approach and are the mainstay of the poverty alleviation strategy. Social safety net programs have become the integral part of anti-poverty strategy to address risk and vulnerabilities of the poor in Bangladesh. This study intends to explore the consequence of SSNP benefits in terms of poverty reduction and identify the major dimensional factors for not being selected in the targeted SSNPs. The study used several statistical tools and techniques including factor analysis to achieve the research objectives. The data for the study has been extracted from the data collection through a project "Targeting Effectiveness and Productive Outcomes of the Social Safety Net Programs in Rural Bangladesh: An Evaluation", sponsored by the Ministry of Education, Gov under the Aid for Advanced Research Program. The study adopted mainly cluster sampling methods where Primary Sampling Units of BBS have been considered as clusters and covered 3322 households from 130 rural clusters. Among the surveyed households about 62% were found as current beneficiary, about 8% old beneficiary and about 30% eligible non-beneficiary.

The descriptive analysis indicates that the socio-economic profile of the surveyed households is relatively poorer than the profile of other households in Bangladesh. In addition, the findings indicate that current beneficiary and old beneficiary households have better economic profile (in terms of income, expenditure and investment) than eligible non-beneficiary households, might be due to the SSNP benefits. The food security condition also shows similar scenario. The comparison of some indicators related to income, food security status and socio-economic condition between 2013 and 2015 indicates that the satisfactory progress of beneficiary households than the non-beneficiary.

Several causes were identified for not being included in the targeted SSNPs. Among them improper selection, non-cooperation from public delegate of local government, nepotism, and no political exposure are the notable reasons. Over half of the respondents mentioned that they were excluded due to improper selection and non-cooperation from public delegate of local government. The factor analysis extracted six factors viz., *poor capacity of implementing authority*; *lack of transparency*; *poor capacity*; *corruption*; *awareness of eligible non-beneficiaries*; *resource scarcity*. The study recommends that the selection process of safety net beneficiary should to be fair and free from bias for optimum utilization of resources and ensuring maximum benefit for the poor.

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1. Introduction

Social Safety Net Programs in Bangladesh is designed and implemented as safeguard for the people suffers from various types of hardship that may occur due to absence of earning member in the family or unemployment, loss of cultivable land, crop failure, chronic disability of any member, widowhood vulnerability, maternity, unable to work for old age or death of earning household members resulting substantial decline in income. In 1972, Social Safety Net Programs was launched as a short-term protection for the deprived people. The government efforts are continues to bring the destitute people into social inclusion and to alleviate poverty of the country in a broader sense.

Though there has been a long struggling to reduce the incidence of poverty and to improve living standards of the people, recently Bangladesh witnessed a very successful history in reducing poverty. The social safety net programs played a vital role in reducing poverty. However, about a quarter population of Bangladesh still living below the poverty line. The World Bank documented that safety net programs are the basis of the country's social protection approach and are the mainstay of the poverty alleviation strategy (World Bank. 2006). Khuda (2011) documented that the social safety net programs is implemented with two broad approaches: Protection and Promotion. "Promotion approach" means which is undertaken to raise the incomes and employment opportunities of the poor and "protection approach" means which is undertaken to reduce the vulnerability of the poor.

In Bangladesh, several safety net programs have been executed targeting different groups of the population to cope with adverse effects that are either individualistic or combined in nature. The World Bank study documented that safety nets contribute to the development policies in four ways: (i) Safety nets redistribute income to the poorest and most vulnerable, with an immediate impact on poverty and inequality, (ii) Safety nets can enable households to make better investments in their future, (iii) Safety nets help households manage risk, and (iv) Safety nets allow governments to make choices that support efficiency and growth.

The Household Income and Expenditure Survey 2010 data revealed that about 24.5% of the total population has been brought under social safety net programs (BBS, 2011). In the national budget of Bangladesh, the total allocated amount in SSNPs was taka 222,491 crore in the financial year 2013-14, which is 2.31% of GDP. Though the head-count rate of poverty is decreasing during the last few decades, a very significant number of households have remained chronically poor. On this perspective, safety net programs in Bangladesh are more than a necessary element for fighting against poverty. The present government has placed elimination of poverty and inequality at the forefront of its development strategy with the aim to bring down the poverty rate 15 per cent by 2021. It is documented that a strong and expanded social safety net is the main emphasis of the present government's vision to protect the poor from all types of social, economic and natural shocks (GoB, 2013). The Bangladesh's achievement of the Millennium Development Goals with respect to poverty reduction was pretty high. The end of poverty and hunger were considered as the first and the second targets among the 17 Sustainable Development Goals (SDGs) approved in the UN General Assembly in September 2015 to be achieved by 2030. Though Bangladesh has made progress in terms of achieving MDGs, a large number of people till now live below extreme poverty line. A combined effort is necessary to fight with poverty in order to meet the SDGs and it is evident from literature that social safety nets programs can play a vital role in achieving the target 1 and 2 of SDGs. Therefore emphasis should be given to study on the functioning of social safety net programs.

Bangladesh has streamlined a good number of social welfare programs and initiatives over time since its independence with a vision of reducing inequality and raising the standard of living of its people following both protection and promotion approaches (Devereux, 2002; Slater, 2011). Many research have been conducted on social safety net programmes focusing on schemes, purposes, visions, outcomes, challenges, leakages, and successiveness of social safety net programmes (Ahmed, 2007; Ahmed *et al.*, 2009; Barkat *et al.*, 2013; Ismat Ara *et al.*, 2014; Zohir *et al.*, 2010). Majority of these studies were found as descriptive in nature that dealt with the effect of a particular social safety nets program on life and livelihood of beneficiary households. Some studies reviewed the existing social safety net programs and their importance for protection of the poor and poverty reduction (Khuda, 2011; World Bank, 2006; World Bank, 2008). Barkat *et al.* (2013) provided a comprehensive review of social safety net programmes targeting mechanism and errors that will enable government to improve targeting so that it better reaches the food insecure and poor. Ismat Ara *et al.* (2014) investigated whether selected safety nets interventions of Bangladesh are generating productive outcomes and what constraints or factors are mediating these outcome by analyzing the HIES-2010 data set as well as collection of data from 30 primary sampling units through FGD and KII. The results indicate that the selected safety net programs are promising means of protection and generate productive outcomes for the vulnerable groups.

One of the vital economic roles of the government is to ensure equitable distribution of national income. To serve this purpose, the governments of both the developed and the developing countries spend a considerable portion of the GDP on social safety net programs as transfer payments and other conditional transfers. To economize the utilization of the scarce fiscal resources for social safety nets, the ground level information is essential for ensuring their distributive and allocated efficiencies. But there might be some flaws beset with the implementation of safety net programs by the government because of which the outcomes of these programs could not be described very effective and efficient. The problems, gaps, discrepancies regarding the application of safety net programs are yet to be concretely determined since studies on such subject matters are really scarce. This study intends to explore the consequence of SSNP benefits in terms of poverty reduction and identify the major dimensional factors for not being selected in the targeted SSNPs.

2. Methods

The data for the study has been extracted from the data collection through a project "Targeting Effectiveness and Productive Outcomes of the Social Safety Net Programs in Rural Bangladesh: An Evaluation", sponsored by the Ministry of Education, GoB under the Aid for Advanced Research Program. The study adopted mainly cluster sampling methods where Primary Sampling Units of BBS have been considered as clusters. The study gathered the data from 3322 households from 130 rural clusters, of which about 62% were found as current beneficiary, about 8% old beneficiary and about 30% eligible non-beneficiary. The study used several statistical tools and techniques including factor analysis to achieve the research objectives.

3. Results and Discussions

Profile of the surveyed households

The profile of the household population is presented in Table 1. The age distribution of the household members shows that about 23 percent were children (0-15 years) and about 12 percent were aged people (more than 60 years). About one-quarter of the household population were 16-30 years of age. There is no significant variation of the age distribution was observed by sex. Among the household population 68.31 percent were married, 16.11 percent were widow/separated/divorced. The rest 15.5 percent were found unmarried. The education profile of the household members indicates that a close to half of the adult male population had no schooling; while in the case of female members over three-quarters had no schooling. The analysis of the occupation of household members aged 17-60 years indicates that about 35 percent of male population was engaged as day-labourer, followed by farming (18.59 %). A sizable number of women (7.68 %) were also found to engage as day-labourer. Regarding the distribution of earning male members aged 16 years or more, it is found that about 30% were full-time earner and about 42 percent were part-time earner. The migration status of the male household members aged more than 16 years indicate that 5.95% were internal migrants and about 1.44% were international migrants. The analysis of household composition indicates that sex ratio of the study population is 107 women per 100 men; about 28% were female-headed households. The dependency ratio is estimated at 84.7%.

Housing condition and landholdings

Table 2 shows the housing condition and landholdings of the household by SSNP beneficiary status. It is found that nine-in-ten of the surveyed households have their living house and about 10% households are homeless. About 15% households have no homestead land at all. They are usually staying in government land or other's land. Over half of the households reported that they did not have any separate kitchen room. About four-quarters of the houses were made of tin and about 16% were made of straw. Most of the household members were found to use non-hygienic toilets. About 80 percent households have no agricultural land and only about 14 percent households have some share-cropped land for agriculture.

Consequences of SSNP benefits: Comparison of some indicators

The comparison of some indicators over a specified time-period is made to evaluate the impact of SSNPs. The comparison is made for two distinct time-periods for all the three categories of households. Therefore, the net impact of the SSNPs can be evaluated through Diff-in-Diff method. The percentage change in food security and socioeconomic status of the households between 2013 and 2015 is shown in Table 3. The findings indicate that the food insecurity status in terms of 'some periods of hunger during the year' has decreased for both current beneficiary and old beneficiary households. However, it is clear from the results that this level of food insecurity remains unchanged for eligible non-beneficiary households. In 2013, about 76% current beneficiary households

were able to have three meals a day and the percentage increase to 80.01 in 2015. The comparison of the self-assessed socioeconomic condition indicate that about 28 percent current beneficiary, about 20 percent old beneficiary and about 49 percent non-beneficiary households were very poor in 2013, while the percentages of very poor were found to decrease for beneficiary households and remains unchanged for non-beneficiary households.

In order to evaluate the consequence of SSNP benefits on household income, different sources of income including debt, donation and SSNP benefits have been compared in two time periods and is shown in Table 4. Both the on-farm and off-farm income was found remarkably higher for beneficiary households than that of non-beneficiary households in both the time periods. The percentage change of both on-farm and off-farm income is found higher for old beneficiary households in comparison to non-beneficiary households and current beneficiary households. The findings indicate beneficiary households are expending and investing more in 2015 in comparison to 2013. Similar to income, the consumption and investment was found remarkably higher for beneficiary households than that of eligible non-beneficiary households. In case of purchasing durable goods and purchasing land, the capability was found to decrease for both the beneficiary and non-beneficiary households.

Causes for mistargeting in beneficiary selection

The respondents of eligible non-beneficiary households were asked to identify the causes for not being included in the expected social safety nets programmes. Respondents' perception regarding the reasons along with self-assessed rank is given in Table 5 as percentage of responses. Several causes were identified for not being included in the targeted social safety nets programmes. Among them improper selection and non-cooperation from public delegate of local government were identified as the main reasons of mistargeting as over half of the respondents mentioned these two causes. The respondents could not explain clearly regarding improper selection, however may be attributed for bias by any means. About 23 percent respondents ranked this cause in 1st position and about 17% put in 2nd position. Nepotism and no political exposure were mentioned by more than two-fifths respondents as reasons for not being included the targeted SSNPs. It is to be noted that about 23 percent respondents ranked no political exposure as reasons for exclusion from the SSNPs. A sizable proportion (20-30 percent) of respondents also mentioned 'Couldn't provide bribe/entry fee', Lack of networking or lobbying, 'Village is too large' and 'Non-cooperation from officials of local govt. office' as the reasons of mistargeting.

Major dimensions of reasons for exclusion

It is difficult to make policy recommendations to reduce the targeting error with the help of the descriptive statistics discussed in the previous section. Hence a sophisticated multivariate technique is essential for exploring the key dimensional factors. In this circumstance, the factor analysis is performed to extract the major dimensional factors of mistargeting. The cumulative percentages of variance indicate that 58.71% of the common variance shared by the 18 variables can be accounted for by the six factors (Table 6). This is reflective of the KMO of 0.70, a "middling" percentage of variance. These six factors can be named as *poor capacity of implementing authority* (improper selection, non-cooperation from public delegate, non-cooperation from officials of local govt. office and bureaucratic complexity); *lack of transparency* (no political exposure, nepotism, political bias, and jealousies); *poor capacity* (non-availability of NID and no SSNP in the area); *corruption* (unable to provide bribe, and system loss - misappropriation of fund); *awareness of eligible non-beneficiaries* (beneficiaries don't have any idea about the programme, complexity of age in NID, and lack of networking or lobbying); *resource scarcity* (budget limitation and size of the village is large).

4. Conclusion

The analyses of the profile of the surveyed households clearly indicate that the economic conditions of the beneficiary households are better than the eligible non-beneficiary households. The improvement might be due to the benefits received from the social safety net programmes, which in turn directs that SSNPs has put positive impact of the livelihood of poor vulnerable households. The study reveals that the main causes of mistargeting in beneficiary selection were improper selection, non-cooperation from public delegate of local government, nepotism and no political exposure etc. and factor analysis reduces the causes in to six factors. The study recommends for allocation of more funds in social safety nets sectors and to revise the existing criteria for beneficiary selection of different SSNPs.

Table 1: Profile of the Household Population by Sex

Characteristics	Male (%)	Female (%)	Both (%)
Age group			
0-15	34.1	31.36	22.91
16-30	25.52	23.63	24.54
31-50	22.57	23.01	22.80
50-60	5.19	9.11	7.22
Above 60	11.91	12.89	12.42
Total(n)	5086	5660	10746
Education (Age > 7 years)			
No education	39.03	49.66	44.59
1-5 years of schooling	34.13	27.96	30.90
6-9 years of schooling	16.25	15.82	16.03
SSC / HSC	8.14	5.67	6.85
Graduate and above	2.45	0.89	1.63
No schooling, adult male (percent)	46.59		
No schooling, adult female (percent)	61.31		
Total(n)	5637	6188	11825
Income Earner(Age 16 years or more)			
Full time	29.84	4.49	16.37
Part time	42.03	18.34	29.45
No work	11.58	21.91	17.07
Otherwise	16.55	55.25	37.11
Total(n)	4223	4787	9010
Marital Status (Age>16years)			
Married	72.91	64.27	68.31
Unmarried	24.11	8.09	15.5
Widow	2.35	24.58	14.18
Separated/Divorced	0.64	3.06	1.93
Migration status (Age>16years)			
No	92.60	99.20	96.11
Home	5.95	0.69	3.15
Abroad	1.44	0.11	0.73
Total (n)	4082	4637	8719
Occupation (Age 17-60 Years)			
Farming	18.59	1.25	9.92
Household work	1.18	68.13	36.60
Day Labourer	34.49	7.68	20.31
Service	9.16	1.71	5.22
Unemployed	6.77	5.03	5.85
Student	10.55	7.05	8.70
Others	19.26	9.14	13.41
Disability Status of House hold member			
Yes	4.90	2.84	3.83
No	95.10	97.16	96.17
Total(n)	6490	6983	13473
Sex Ratio			
Sex Ratio	107women per 100 men		
Female-headed household (percent)	27.58		
Dependency Ratio (%)			
Child (0-14) dependency ratio	53.64		
Aged (>60) dependency ratio	31.07		
Total dependency ratio	84.7		
Average Family size	4.03		

Table 2: Housing Condition and Landholdings of the Household by SSNP Beneficiary Status

Indicators	Current Beneficiary (%)	Old Beneficiary (%)	Eligible Non Beneficiary (%)	Total (%)
Ownership of living house				
Yes	91.96	94.07	83.6	89.61
No	8.04	5.93	16.4	10.39
Separate kitchen in the household				
Yes	59.06	64.81	52.4	57.53
No	40.94	35.19	47.6	42.47
Type of your main house				
Straw roof, muddy wall/ Bamboo Fence	14.28	11.48	20.1	15.8
Tin House	81.64	84.07	77.3	80.53
Others	4.03	4.44	2.4	3.62
Type of toilet used by HH members				
Sanitary toilet	4.69	2.55	2.59	3.88
Pukka toilet (water preventing)	5.62	4.00	4.49	5.15
Pit Pukka (Not water preventing)	44.99	29.82	34.83	40.67
Not hygienic	44.69	63.64	58.08	50.30
Amount of agricultural land				
Landless	77.53	73.33	86.5	79.89
1 to 15 Decimal	4.92	4.44	4.2	4.67
16-50 Decimal	11.26	6.67	5.4	9.12
More than 50 Decimal	6.29	15.56	3.9	6.32
Average \pm SD	13.25 \pm 1.1	26.4 \pm 4.5	5.92 \pm 0.80	12.1 \pm 0.81
Amount of homestead Land				
No Homestead Land	11.7	13.33	21.4	14.75
1 to 15 Decimal	78.36	72.22	71.5	75.8
16-50 Decimal	8.33	11.11	5.6	7.74
More than 50 Decimal	1.61	3.33	1.5	1.72
Average \pm SD	6.85 \pm 0.22	9.32 \pm 0.94	5.39 \pm 0.28	6.61 \pm 0.18
Total(n)	2052	270	1000	3322

Table 3: Percentage of households for different levels of food security and socioeconomic status for the period 2013 and 2015

Indicators	Household Type					
	Current Beneficiary		Old Beneficiary		Eligible Non Beneficiary	
	2013	2015	2013	2015	2013	2015
Food Security Status						
Some periods of hunger during the year	5.46	4.43	3.33	1.48	8.4	8.5
Two meals a day throughout year	18.52	15.45	20.37	18.89	31.5	28.6
Three meals a day throughout year	76.02	80.12	76.3	79.63	60.1	62.9
Overall Socio-economic condition						
Very poor	28.31	26.02	20.37	17.41	49.3	50.6
Moderately Poor	34.26	29.78	39.26	37.04	30.7	26.5
Poor	31.14	36.26	34.81	37.41	18.2	21.1
Middle class	5.75	6.97	5.19	7.41	1.8	1.8
Rich	0.54	0.97	0.37	0.74	0	0
Total(n)	2052		270		1000	

Table 4: Status of major sources of household income for the time point 2013 and 2015 according to the SSNP beneficiary condition and percentage change over time

Income Source	Average amount in 2013	Average amount in 2015	Percentage change during 2013 to 2015
Household Income from on-farm (Annual)			
Current Beneficiary	9728.78	11608.67	19.32
Old Beneficiary	11603.7	16815.74	44.92
Eligible Non Beneficiary	6694.23	8749.58	30.70
Household Income from off-farm (Annual)			
Current Beneficiary	52382.37	62742.66	19.78
Old Beneficiary	51575.26	65381.07	26.77
Eligible Non Beneficiary	40473.95	47557.49	17.50
Consumption (Annual)			
Current Beneficiary	29158.91	33764.8	15.80
Old Beneficiary	4239.59	4745.01	11.92
Eligible Non Beneficiary	11260.39	13100.12	16.34
Investment (Annual)			
Current Beneficiary	17591.22	23256.41	32.20
Old Beneficiary	2563.89	2955.99	15.29
Eligible Non Beneficiary	4877.32	6359.77	30.39

Table 5: Respondents' perception on causes for not being included in targeted SSNPs along with rank of the responses

Causes	Total Response (%)	Rank of the responses				Total number of responses
		1st	%	2nd	%	
Improper selection	56.07	218	22.71	151	16.58	536
Non-cooperation from public delegate of local govt.	54.71	114	11.88	178	19.54	523
Nepotism	44.67	107	11.15	122	13.39	427
No political exposure	42.68	224	23.33	79	8.67	408
Couldn't provide bribe/entry fee	28.66	58	6.04	86	9.44	274
Lack of networking or lobbying	27.93	45	4.69	78	8.56	267
Village too large	23.85	51	5.31	51	5.60	228
Non-cooperation from officials of local govt. office	20.61	18	1.88	41	4.50	197
Political bias	16.42	15	1.56	34	3.73	157
Budget limitation (according to selectors)	13.91	32	3.33	31	3.40	133
Don't have any idea about SSNPs	8.05	13	1.35	20	2.20	77
System loss (misappropriation of fund)	7.64	13	1.35	13	1.43	73
Bureaucratic complexity	7.64	4	0.42	13	1.43	73
Complexity of NID and actual age	4.39	25	2.60	3	0.33	43
Jealousies	3.87	6	0.63	6	0.66	37
Non-availability of NID	2.62	9	0.94	4	0.44	25
No SSNPs in the area	0.42	0	0.00	0	0.00	4

Table 6: Major dimensional factors of not being included in targeted SSNPs

Reasons	F1	F2	F3	F4	F5	F6
Wrong selection	0.522					
Couldn't provide bribe/entry fee				0.515		
No political exposure		0.459				
Did not have any idea about such programme					0.594	
Nepotism		0.578				
Non-cooperation from public delegate of local govt.	0.555					
Non-cooperation from officials of local govt. office	0.451					
Non-availability of NID			0.851			
Lack of networking or lobbying					-0.461	
Village too large						0.461
No SSNPs in the area			0.827			
Political bias		0.599				
System loss (misappropriation of fund)				0.456		
Jealousies		0.588				
Bureaucratic complexity	0.591					
Budget limitation (according to selectors)						0.529
Complexity of NID and actual age					0.462	
Total Variation explain by the extracted factors						58.71
Extraction Method:	Principal Component Analysis.					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.						0.70

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