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Social Exclusion from Development Programmes:

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Dr. Sugata Sen[1]

Social exclusion is a contested term. The concept can be traced to Max Weber, who identified exclusion as one form of social closure (Parkin, 1979). He saw exclusionary closure as the attempt of one group to secure for itself a privileged position at the expense of some other group through a process of subordination.

Modern usage of the term 'social exclusion' appears to have originated in France, where it was used to refer primarily to those who slipped through the Bismarckian[2] social insurance system; the socially excluded were those who were administratively excluded by the state (Lenoir, 1974) (Duffy, 1997).

The United Nations Development Programme has been at the forefront of attempts to conceptualize social exclusion across the developed and developing world (Figueiredo, 1997). Social exclusion is conceptualized as lack of recognition of

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[2] pertaining to, or resembling Otto Von Bismarck. **Otto Von Bismarck**, was a Prussian statesman who dominated German and European affairs with his conservative policies. Bismarck implemented the world's first welfare state in the 1880s. He worked closely with big industry and aimed to stimulate German economic growth by giving workers greater social securities.(Source: http://en.wikipedia.org/wiki/Otto_von_Bismarck)

basic rights, or where that recognition existed, lack of access to political and legal systems necessary to make those rights a reality.

Centre for Analysis of Social Exclusion at the London School of Economics (LSE) has used the following definition of social exclusion: 'An individual is socially excluded if (a) he or she is geographically resident in a society but (b) for reasons beyond his or her control, he or she can not participate in the normal activities of citizens in that society, and (c) he or she would like to so participate' (Burchardt, 1999).

The outcome of social exclusion among the excluded groups depends crucially on the functioning of social and economic institutions through a network of social relations and the degree to which they are exclusionary and discriminatory in their outcomes. Social exclusion has a sizeable impact on an individual's access to equal opportunities, if social interactions occur between groups in power - subordinate relationships. The groups' focus on social exclusion recognizes that people are excluded because of ascribed rather than achieved features beyond individual agency or responsibility (Buvinic, 2005).

The consequences of social and economic exclusion not only are confined on the well being of the excluded groups, inter-group inequalities and inter-group conflicts, but also affect the performance of the economy. The standard economic theory of discrimination implies that market discrimination will generate consequences that adversely affect overall economic efficiency and lead to lower economic growth. Factor immobility also brings in segmentation in the markets. The societal norms of fixed occupations – by not permitting mobility of human labour, land, capital and entrepreneurship across stratums – create segmented markets and bring imperfections in each of these markets. Factor immobility brings

gross inefficiency in resource allocation and economic outcome (Thorat & Newman, 2010).

In India, exclusion revolves around societal institutions that exclude, discriminate against, isolate and deprive some groups on the basis of group identities such as caste, ethnicity, religion and gender. Indian society is characterized by multiple forms of exclusion associated with group identities like caste, ethnicity, gender, and religion in various spheres of society, polity, and economy. Addressing such forms of exclusion requires inclusive policies. But the development experience of the last fifty years or so possibly makes some groups believe that the gains of social and economic developments have not been fairly shared by them (Thorat & Newman, 2010).

Objective of the study

This work examines whether each and every caste in West Bengal has been benefitted equally from development programmes. This work wants to examine the nature and dimensions of social exclusion from development programmes in West Bengal on the basis of various castes and to measure the extent of deprivation.

Primary Data and Sample Design

Due to scarcity of necessary data at disaggregated level we had to depend on primary level data. Sample was chosen through multi-stage stratified random sampling, the basis of strata of the selection of districts is per capita income (Bureau of Applied Economics and Statistics, Govt. of West Bengal, 2009). In the first stage four districts of West Bengal were randomly chosen –two from the strata of relatively higher per capita income districts and two from the strata of relatively

lower per capita income districts. The four sample districts are Purba Medinipur and Howrah (also called Haora) – from the strata of relatively high per capita income districts; Cooch Behar (also called Koch Behar or Koch Bihar) and Paschim Medinipur – from the strata of relatively low per capita income districts. At the second stage, two community development blocks from each district was chosen randomly. In the third stage, two villages were selected purposively from each community development block. Ultimately, 20 households from each of the selected villages were chosen randomly. Thus the sample size is 320. The study was undertaken in 16 villages under 8 blocks of 4 districts of West Bengal. Data were collected from these households through field survey based on questionnaire interview method. Survey was undertaken between December 2012 and March 2013. Household level information was collected from the household head. Questions aimed to collect data on the demographic profile of the household, health status, details of academic achievements as well as learning process and occupation of each of the members. Particulars of consumption expenditure, consumer durables and physical resources were enumerated for each of the households. Information on housing, sanitation, drinking water and use of electricity was gathered. Perceptions about different govt programmes were captured through the questionnaire.

The relevant development programmes or schemes under our consideration are as follows:

- ***Mahatma Gandhi National Rural Employment Guarantee Scheme*** *(MGNREGS)*
- Preventive and curative health cares have been used as components of health facilities. Under preventive health we discuss ***National Rural Drinking Water Programme, Individual Household Latrine (IHHL) Scheme***

and ***Universal Immunization Programme.*** *Under* curative health we discuss ***Universal Healthcare Facilities.***

- ***Total Literacy Campaign*** and ***Sarva Siksa Abhiyan (SSA)/Sarva Siksha Mission (SSM).***

Construction of Social Exclusion (SE) Index

The domains or aspects under this work to measure social exclusion are health, education and income. Under each of these domains certain development programmes (discussed above) have been chosen to functionalise the idea. Some questions or variables under each domain are put forwarded to capture the views of the respondents. Five questions or variables are identified to evaluate the level of exclusion from Mahatma Gandhi National Rural Employment Guarantee Scheme (**MGNREGS).**

We have used dummy variable to incorporate these into the model. 0 is assigned to the answer 'yes' for each question and 1 otherwise. The answer 'yes' or assigning 0 to any question means the respondent is not excluded with respect to the concerned variable. On the other hand answering 'no' or assigning 1 to any question means that the respondent is excluded with respect to the concerned variable. The score of each respondent for exclusion from MGNREGS is added and divided by 5 to get the average. This average value may be regarded as the measure of exclusion in the field of income delivery mechanism. Mathematically this may be presented as follows:

$$ME_j = \frac{1}{5}\sum_{i=1}^{5} s_{ij}^{M}$$

where ME_j is the measure of exclusion in the field of income delivery programme of jth individual. s_{ij}^{M} , i = 1,2 ….5 is the score on each variable under the indicator of income delivery programme of jth individual.

The measure for exclusion in the ground of **health delivery programmes** has two components with equal weights - these are measure of exclusion in the field of curative health and measure of exclusion in the field of preventive health. Seven variables or questions are identified to evaluate the exclusion from the *curative health programmes.*

On the other hand, three variables or questions are identified to evaluate the exclusion from the *preventive health programmes.* Like MGNREGS, 0 is assigned to the answer 'yes' for each question and 1 otherwise. The answer 'yes' or assigning 0 to any question means the respondent is not excluded with respect to the concerned variable. On the other hand, answering 'no' or assigning 1 to any question means that the respondent is excluded from the concerned variable. The score of each respondent for exclusion from different variables under curative health care is added and divided by 7 to get the average. This average value may be regarded as the measure of exclusion in the field of curative health delivery mechanism. Mathematically this may be presented as follows:

$$CHE_j = \frac{1}{7}\sum_{i=1}^{7} s_{ij}^{CH}$$

where CHE_j is the measure of exclusion in the field of government sponsored curative health delivery mechanism of jth individual. s_{ij}^{CH} , i = 1,2 ….7 is the score on each variable under the indicator of curative health delivery mechanism of jth individual.

In the same manner, the score of each respondent for exclusion from different variables under preventive health care is added and divided by 3 to get the average. This average value may be regarded as the measure of exclusion in the field of government sponsored preventive health delivery mechanism. Mathematically this may be presented as follows:

$$PHE_j = \frac{1}{3}\sum_{i=1}^{3} s_{ij}^{PH}$$

where PHE_j is the measure of exclusion in the field of government sponsored preventive health delivery mechanism of jth individual. s_{ij}^{PH} , i = 1 …. 3 is the score on each variable under the indicator of preventive health delivery mechanism of jth individual.

Thus the composite measure of exclusion from govt sponsored health delivery programme is the average of curative health exclusion measure and preventive health exclusion measure having equal weight to each component. Mathematically,

$$HE_j = \frac{1}{2}[CHE_j + PHE_j]$$

$$\Rightarrow HE_j = \frac{1}{2}[\frac{1}{7}\sum_{i=1}^{7} s_{ij}^{CH} + \frac{1}{3}\sum_{i=1}^{3} s_{ij}^{PH}]$$

The **basic literacy programme** has been used as an indicator of government education delivery programme. The measure for exclusion under basic literacy programme may be constructed with the variables like – whether there is any illiterate person in the household ? 0 is assigned to the answer ‘no’ and 1 otherwise. The answer ‘no’ or assigning 0 to the question means there is not a single illiterate within the family. On the other hand, answering ‘yes’ or assigning

1 means that the respondent is excluded from the concerned variable. This value may be regarded as the measure of exclusion in the field of education delivery mechanism. Mathematically this may be presented as follows:

$$EE_j = 0 \; if \; there \; is \; not \; a \; single \; illeterate \; within \; the \; family \; \; and$$

$$= \qquad\qquad 1 \; otherwise$$

where EE_j is the measure of exclusion in the field of government sponsored literacy delivery mechanism of jth individual.

Here it is to be kept in mind that voulantary exclusion from any programme has been treated as inclusion under the afore stated programme.

The above discussion ensures that each Sectoral Index (ME_j, HE_j and EE_j) takes the values from 0 to 1 i.e., $0 \leq$ Sectoral Index ≤ 1. The higher the value of the sectoral index the higher will be the level of exclusion on that particular sector. If 3 dimensions of exclusion from government programmes are considered, then a composite measure will be represented by a point Dj = (ME_j, HE_j and EE_j) on the 3 dimensional Cartesian space. In the 3 dimensional space, the point O = (0,0,0) represents the point indicating the best situation, representing no exclusion while the point I = (1,1,1) represents the highest level of exclusion. Then the measure of exclusion for jth individual is SE_j, is measured by the normalized Euclidean distance of the point Di from the ideal point 0= (0,0,0). The exact formula to calculate normalized Euclidean distance in an n dimension Cartesian space (Simmons, 1963) (Malik & Arora, 2010) is

$$\frac{1}{\sqrt{n}}\sqrt{(x_1 - y_1)^2 + (x_2 - y_2)^2 + \cdots + (x_n - y_n)^2}$$

In our three dimension space of ME_j, HE_j and EE_j the same can be written as

$$SE_j = \frac{1}{\sqrt{3}} [\sqrt{\left(ME_j - 0\right)^2 + \left(HE_j - 0\right)^2 + \left(EE_j - 0\right)^2}]$$

Household level data collected on the basis of primary level survey are used to find the social exclusion score of each household.

Findings

The descriptive statistics of household level social exclusion values in our sample is shown by Table 1.

Table 1 Descriptive Statistics of composite social exclusion index

	N	Range	Minimum	Maximum	Mean	Std. Deviation
socialexclusion	320	.84	.16	1.00	.6757	.19994
Valid N (listwise)	320					

Source: Calculated by the author on the basis of sample data.

Table 1 illustrates that in our sample household level social exclusion varies from the minimum of 0.16 to maximum of 1. It is to be kept in mind that 0 stands for the best situation, representing no exclusion while the value 1 corresponds to the highest level of exclusion. The mean social exclusion value is 0.6757 and the range is 0.84.

We have examined the internal reliability or consistency of the composite social exclusion index as well as sectoral indexes through Cronbach's alpha (Cronbach, 1951) (Ray & Bhattacharya, 2013). It is observed that the sectoral social exclusion values along with the composite social exclusion values have a good and acceptable consistency (Cronbach's Alpha = 0.710). Also the correlation coefficients between composite social exclusion values and the sectoral social

exclusion values are more than 30 percent and hence the internal consistency of the composite index is good.

To compare the degrees of social exclusion between different castes we arrange the sample households in descending order on the basis of respective social exclusion values and break the whole set in two equal subsets – subset 1(subsetHigh) - with higher values of social exclusion and subset 2 (subsetLow) - with lower values of social exclusion. The calculated mean social exclusion of each subset is presented by Table 2. The mean value of exclusion for subset 1 is 0.8399 and the same for subset 2 is 0.5115.

Table 2 Paired Samples Statistics of higher social exclusion sub-group and lower social exclusion sub-group

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	subsetHigh	.8399	160	.07279	.00575
	subsetLow	.5115	160	.14372	.01136

Source: Calculated by the author on the basis of sample data.

We test the claim, H_0 = the difference of social exclusion values of the two groups is significant against H_1 = the difference of social exclusion values of the two groups is not significant. The findings of this test are presented through Table 3 and Table 4. It is shown that the social exclusion value of subset 1 is significantly higher than the social exclusion value of subset 2 i.e. H_0 is accepted at 1 percent level which signifies that the representative value of household level social exclusion in subset 1 is significantly higher than that of subset 2. In other words it can be said that in subset 1 the households have significantly higher social exclusion value than that of the households of subset 2.

Table 3 Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	subsetHigh & subsetLow	160	.880	.000
Source: Calculated by the author on the basis of sample data				

Table 4 Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
subsetHigh - subsetLow	.32836	.08683	.00686	.31480	.34191	47.835	159	.000
Source: Calculated by the author on the basis of sample data								

Table 5 shows that the percentages of general caste households (Gen) and other backward caste (OBC) households are higher in subset 2 (Gen: 60.6 percent and OBC: 6.3 percent) than those are in subset 1(Gen: 34.4 percent and OBC: 0.6 percent). But the percentages of scheduled tribe (ST) and scheduled caste (SC) households are higher in subset 1 (ST: 25 percent and SC: 40 percent) than those are in subset 2(ST: 1.3 percent and SC: 31.9 percent).

Table: 5 Distribution of households on different subsets by caste					
	CASTE				
	Gen	OBC	SC	ST	TOTAL
Subset 1	55 (34.4)	01 (0.6)	64 (40.0)	40 (25.0)	160 (100)
Subset 2	97 (60.6)	10 (6.3)	51 (31.9)	2 (1.3)	160 (100)
Total	152 (47.5)	11 (3.4)	115 (35.9)	42 (13.1)	320 (100)
Source: calculated on the basis of primary data					

Regressing household level social exclusion values on different social characteristics it comes out that the coefficient of ST is individually significant. The coefficient of ST is positive. It appears from the test that degree of social exclusion from development programmes in West Bengal increases with the status about Scheduled Tribe.

Tukey Post Hoc test at 5 percent level to find whether the variation between the mean social exclusion of two groups is significant finds that the variations in mean social exclusion between Gen and OBC; Gen and ST are significant, but the variation in mean social exclusion between Gen and SC is not significant. At the same time the variation in mean social exclusion between OBC and all other castes are significant. In the same manner the variation in mean social exclusion between SC and ST are significant. Thus our study finds three homogenous subsets on the basis of mean social exclusion of different castes and their variations. In subset 1 we find only the OBC with lowest group mean social exclusion, in subset 2 we find Gen and SC. In subset 3 we find only ST with highest group mean social exclusion. Thus we can come to the conclusion that the OBC community is least excluded and the ST community is most excluded. As Gen, OBC and SC communities do not have any significant effect on social exclusion it can be concluded that only the variation in outcome due to ST community is significant.

Table 6 Group mean socialexclusion

Tukey HSD

CASTE	N	Subset for alpha = 0.05		
		1	2	3
OBC	11	.4596		
GEN	152		.6306	
SC	115		.6745	
ST	42			.8992
Sig.		1.000	.763	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 30.771.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Source: calculated on the basis of primary data

The degree of heterogeneity with respect to social exclusion of households within each caste as presented by generalized entropy index with $\alpha = 2$ (GEI) (Tsui, 1999) in Table 4 is individually significant as within group variation for each caste is significant or significantly different from 0 for all castes.

Table 7 Generalized Entropy Index of different castes

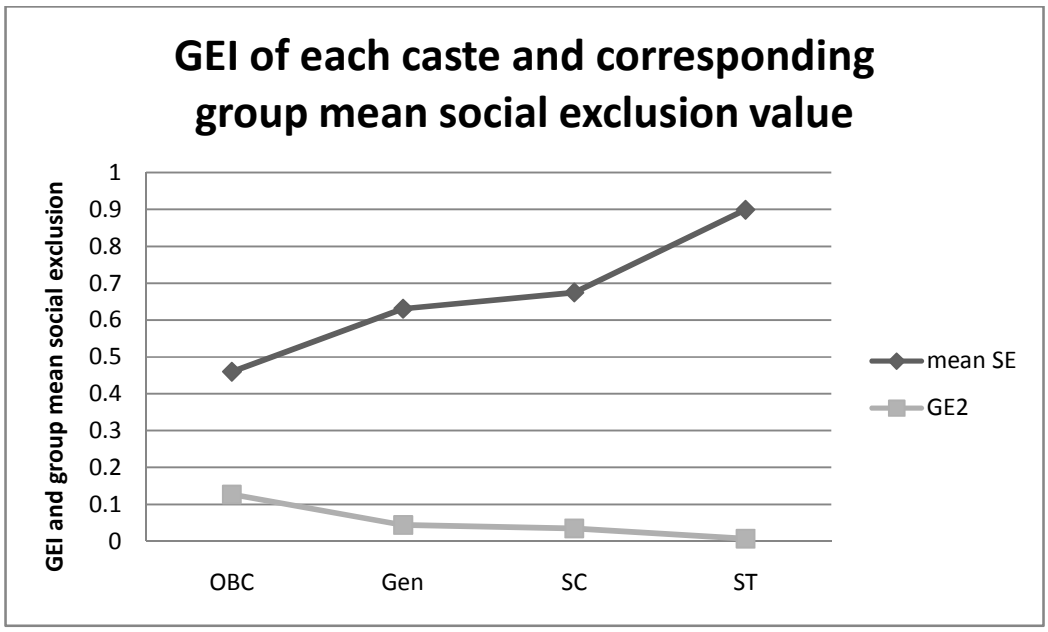
	SD	MEAN	coeff of var	GEI ($\alpha = 2$)
OBC	0.231452	0.459558	0.503641594	0.126827
Gen	0.186364	0.630552	0.295557498	0.043677
SC	0.177939	0.67446	0.263824861	0.034802
ST	0.103566	0.899231	0.115171341	0.006632

Source: calculated on the basis of primary data

Plotting the GEI values of each caste with corresponding group social exclusion values deliver an interesting result. It is observed that level of concentration of households with respect to social exclusion values within each caste increases with the increase in group mean social exclusion (Chart 1). In other words it can be said that within any caste as the degree of heterogeneity of households with respect to

social exclusion value increases the corresponding group mean social exclusion falls.

Chart 1



Naturally, when more homogenous targeted plans are necessary for the groups with higher level of exclusion, development programmes with greater variation are needed for the less excluded groups. In other words, it can be said that for sustainable development and to eliminate social exclusion from our society permanently, with the fall in social exclusion increasingly more and more diverse targeted development programmes are necessary. The inverse relationship between group social exclusion value from development programmes and within group heterogeneity and its implications on policy measures are unique in the discourses on social exclusion.

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