"Mapping the Socially Excluded: Beyond Poverty Measurements"

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1. Introduction

Despite the developmental efforts of the Indian state in the last 60 years many communities have unfortunately remained excluded from the benefits that accrued to a large number of Indians. It should be interesting to note that some of these communities are not necessarily the by-products of the relatively new liberal economic policies that is often believed to have created a significant transformations in the socio-economic conditions all over, with economic and social disparity exacerbated during the last decade. In fact, as we point out explicitly in the following paragraphs, certain regions and communities despite geographic, economic and cultural proximity to prosperous towns in India that drew large benefits from the recent growth and development, have traditionally been neglected and left out of the process of development. Several reasons can be forwarded for this state of affairs and a large literature dealing with exclusion has surfaced in the recent past. Some of these studies argue that a good deal of marginalization due to exclusion can be attributed to historical reasons and found in caste classification, tribal isolation, low levels of technology in farming or animal husbandry and the lack of adequate levels of literacy. We explore the documented factors along with the conditions of living for some communities in the state of West Bengal in the following sections. The plan of the report is as follows. Section 1 discusses the intricate meaning of the terms, social and economic exclusion, offers detailed literature survey in order to situate the current research in a suitable context; section 2 offers the scope of present study and section 3 discusses the methodology to be used in future; section 4 provides the results of the survey along with an analysis of the ranking of the villages with regard to the extent of social exclusion experienced. Section 5 concludes and

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examples of weights selected using the Principal Component Analysis is offered in the Appendix. Annexure 1 offers the questionnaires used for household level and village level surveys.

1.1   Social and Economic Exclusion

We intend to argue that while the level of economic backwardness could be rather pervasive for a district as a whole (for example, South 24 Parganas is a backward district in the province of West Bengal, and the rural BPL percentage is 37.2 as of 2002, number of agricultural labourer is almost 20 percent, number of SC families almost 10 percent of the total population, etc. or the district of Purulia with high percentage of tribal population), there are communities within that district who are even more marginalized due to several additional social and political factors than those commonly discussed in the literature. In order to understand the reasons behind such exclusion, one may use the strength of political representation of that community in a power-driven democratic set-up as in India, occupational patterns that cannot benefit from being part of the mainstream, and so on as the major explanatory factors over and above the usual lament about the lack of resources restraining the course of development. Clearly these are empirical questions and cannot be appropriately answered without significant knowledge of the idiosyncratic positions of these communities. It is needless to mention that the concept of 'exclusion' dwells heavily on the lack of visibility of such communities in most political and economic forum and the need for first hand information on the conditions of these target groups is imperative. Fortunately, the aspect of social exclusion has started receiving substantial emphasis in the recent times from national and

supranational agencies and without adequate (cross-sectional and longitudinal) information on the localized issues efforts at strategic interventions can turn out to be vacuous. It may, in fact, appear as a puzzle as to why the non-market interventions so far have failed to improve the conditions of these groups appreciably despite such elaborate decentralization of power in India.

Resorting to more formal approaches dealing with social exclusion, the following shall be fairly instructive. The term social exclusion has varied interpretations. It is closely linked with the concept of deprivation and poverty. For example, Americans view poverty basically from a materialistic point of view. US government considers poverty strictly a deficiency of income for basic necessities. However, in Europe the concept of social deprivation incorporates non- monetary dimensions of deprivation also. Incorporation of non- financial indicators of "social exclusion" is the real European innovation (Silver, 1995). Europeans conceive social exclusion as a distinct from income poverty. For some, it is a broader term encompassing poverty for others it is a cause or a consequence of poverty. The term first came into usage in 1970s in France. It was originally used to describe a selected set of people with disabilities excluded from social insurance coverage in France. A French social policy analyst, Paul Lenoir in 1974 identified ten categories or groups of such people. These were the physically and mentally handicapped, suicidal persons, aged invalids, abused children, substance abusers, delinquents, single parents (notably sole mothers), multi- problem households (where more than one of the factors existed at any one time), marginal, asocial and social misfits. (Peace, 1999).

From France the concept of social exclusion spread all over Europe. When the

European Union (EU) adopted the term, its meaning underwent subtle changes. The EU viewed 'exclusion' as an inability to exercise the "social rights of citizens" to a basic standard of living and as barriers to 'participation' in the major social and occupational opportunities of the society (Mayes, 2001).

More recently, the term has acquired specific focus. "Social exclusion describes a process by which certain groups are systematically disadvantaged because they are discriminated against on the basis of their ethnicity, race, religion, sexual orientation, caste, descent, gender, age, disability, HIV status, migrant status or where they live. Discrimination occurs in public institutions, such as the legal system or education and health services as well as social institutions like the household" (DFID policy paper 2005, pp: 1).

Furthermore, the concept of social exclusion adds a new dimension to the poverty analysis, if we consider poverty as 'capability deprivation'. Sen (1992), for example, mapped relational considerations to the capability deprivation approach of social exclusion. Like poverty, it seems there is no commonly agreed upon definition of social exclusion, though it is a widely acknowledged phenomenon (Saunders, 2003). Governments, institutions, academics and international organizations all view social exclusion differently, yielding a rich, but sometimes confusing perspectives. Yet, amid the intellectual debates about the definition of exclusion, there is some degree of consensus about the main factors responsible and the consequent impacts.

1.2. Dimensions and Literature Review

There is a broad agreement that exclusion is multidimensional, including

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deprivations of economic, social, gender, cultural and political rights, making exclusion a much broader concept than material poverty. The concept of exclusion includes the reinforcing socio- political factors that form the basis of discrimination and disadvantage within society.

Beyond these broad principles, there is a considerably less agreement regarding the dimensions of exclusion. But there are three common elements- relativity, agency and dynamics- that are widely regarded as central: (Atkinson, 1998).

1. **Relativity:** Exclusion can only be judged by comparing the circumstances of some individuals, groups and communities relative to others at a given place and time.

2. **Agency:** People may be excluded by the action of some agents – The non-fulfillment of economic, social and cultural rights implies that someone has violated the rights of another, either actively or through having failed to take some action. This focus on agency can help in the identification of the causes of exclusion and ways to remedy it.

3. **Dynamics:** Exclusion may be based on bleak future prospects, not just current circumstances.

These dimensions of exclusion often intertwine with each other and exacerbating exclusion further. (The State of the World's Children 2006- "Excluded and Invisible", UNICEF)

Based on the nature of the effect of social exclusion, there are two different types of social exclusion: Intrinsic/ Constitutive and Instrumental Considerations

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Intrinsic/ Constitutive Relevance:

Being excluded can sometimes be in itself a deprivation and this can be of intrinsic importance on its own. For example, not being able to relate to others and to take part in the life of the community can directly impoverish a person's life. It is a loss on its own, in addition to whatever further deprivation it may indirectly generate. This is a case of *constitutive relevance* of social exclusion (Sen, 2000). However, this is not so much social and has more individual content in this.

The rights or capabilities based approach (Sen, 1992) of defining social exclusion carries with it a focus on the *intrinsic* problems associated with social exclusion and has more social orientation. If social exclusion is a violation of rights or capabilities, it immediately implies that a society that tolerates social exclusion is intrinsically deficient as it fails to grant basic rights or capabilities to its citizens. Thus this approach ensures that social exclusion is not seen primarily as a problem for those who suffer from it, but a larger societal shortcoming.

Instrumental Relevance:

Amartya Sen has approached the instrumental relevance of social exclusion by relational deprivations. According to Sen (2000), there are relational deprivations that are not in themselves terrible, but which can lead to very bad results. Some causally significant exclusion can have great *instrumental importance:* they may not be impoverishing in themselves, but they can lead to impoverishment of human life through their causal consequences. It may lead to deprivation of social and economic opportunities that would be helpful for the persons involved. For example, not using

the credit market need not be intrinsically bad for many, but lack of access to the credit market can, through causal linkages, lead to other deprivations, such as income poverty, or the inability to take up interesting opportunities that might have been both fulfilling and enriching but which may require an initial investment and use of credit.

Besides this, particular deprivation may have both constitutive and instrumental relevance. For example, not to be able to mix with others may directly impoverish a person's life, and also additionally, reduce economic opportunities that come from social contact. However, they may also appear singularly.

Another potentially useful distinction of social exclusion is that between Active and Passive Exclusion.

Active Exclusion: This is open and deliberate, such as when state institutions deliberately discriminate in their laws, policies or programmes. In Lesotho, for example, (DFID, 2005) women have been discriminated through the law. They could not inherit land or property, get a job or sign a contract without the permission of their husbands. In Pakistan, the evidence in court of a Muslim woman is worth half that of a man. In many countries, certain state benefits are denied to non- citizens, leaving them vulnerable to destitution. In other cases there are rigid social systems that decide people's position in society on the basis of heredity, as in the Indian caste system. When, for example, immigrants or refugees are not given a usable political status, it is an active exclusion, and this applies to many of the deprivations from which minority communities suffer in Europe and Asia and elsewhere.

Passive Exclusion: When the deprivation comes about through social processes in which there is no deliberate attempt to exclude, the exclusion can be seen as a passive exclusion. A good example is provided by poverty and isolation generated by a sluggish economy and a consequent accentuation of poverty.

The distinction between active and passive exclusions can be pertinent for causal analysis as well as for policy response. For causal analysis it may be important to differentiate between the active fostering of exclusion – whether done by the government or by any other willful agent – and a passive development of an exclusion that may result from a set of circumstances without such volitional immediacy. For example, the decision of the United States Congress a couple of years ago to exclude permanent residents who were not US citizens from certain types of Federal Benefits was clearly an active exclusion, since it came about through policies directly aimed at that result. In contrast, the macroeconomic circumstances that may lead to a significant level of unemployment may not have been devised to bring about that result. Also, when particular groups- such as the young and the less skilled- suffer especially from being left out of the employment process, it is possible that the economic conditions or policies may not have been aimed at excluding these vulnerable groups from employment. Even in the absence of direct aiming, it is government's responsibility to take into account what bad things are happening in the economy and how they can be prevented.

Sometimes an active exclusion can cause other exclusions that were not part of the plan of exclusion but nevertheless are results of the directly aimed exclusion. An example of this is political exclusion from voting rights of settled immigrants in

France and Germany. In fact in most of the European countries, legally settled immigrants do not have the political right to vote because of the difficulties and delays in acquiring citizenship. This keeps them outside the political process in a systematic way- this is clearly an *active exclusion.* This political exclusion results in disenfranchisement of the immigrants, even long- term settled immigrants, and this in turn makes their social integration that much harder. Though the political exclusion of immigrants from voting rights was not devised to bring about the kind of social exclusion related to anti- immigrant extremism that one sees in Germany and France, it seems plausible to argue that the active political exclusion has had the effect of helping further social exclusion in those countries. Since the issues of political integration and of voting rights also arise in other parts of the world, including in Asia, this connection between active and passive exclusions may have a much wider relevance than the European nature of this example may initially suggest.

1.3   Sources of Social Exclusion

Spatial Exclusion

This aspect of exclusion occurs when people face deprivation on the basis not of who you are but where you live, known as 'spatial exclusion'. People who live in remote or isolated areas may be prevented from full participation in national economic and social life. People from the 'wrong part of town' can find it harder to get a job because of the social stigma that can be attached to the 'places of the poor' (for instance, the *favelas* of Brazilian cities). And people, who move from one part of a country to another, or across borders, can suffer exclusion because they are 'in the wrong place'. For example, in

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China and former Soviet countries, men and women who migrated for work had long been unable to register locally as citizens and were often excluded from welfare programs and even access to public services.

Another way to examine sources of social exclusion is to place them in a two-way classification system. The first type of classification relates to the original source of disadvantage of households or individuals that may in itself lead to social exclusion as a consequence. Four kinds of sources come to mind: *economic, birth or background, social, and societal/political*. At the same time, within each of these categories, it is possible to distinguish two distinct mechanisms of social exclusion. In the first the exclusion associated with the disadvantage stems directly from the disadvantage, while in the second, the exclusion stems primarily from public policy that turns an existing disadvantage into a form of social exclusion. Such public policy that fosters social exclusion may be doing so with that intent in mind (such as restrictive citizenship policies) or in may actually end up creating social exclusion despite attempting to achieve the opposite (such as stigmatizing and entrapping anti-poverty policies).

However, these bases of social exclusion are not mutually exclusive. In fact, social exclusion has been shown to become most intractable when several of these factors appear in combination or one factor promotes the development of others (e.g. there appears to be causal empirical linkages in both directions between unemployment and income poverty on one hand, and family breakdown on the other, Paugam, 1995; Walker, 1995).

Table 1. Classification of Social and Economic Exclusion

Sources of Exclusion	Direct	Policy-Related
a) Economic	Unemployment, poverty	Education funding, stigmatizing or and entrapping of Welfare Systems
b) Social	Family, neighborhood	Housing, welfare, discrimination, education policies
c) Birth or Background	Disability, other forms of disadvantage (ethnicity, social background, etc.)	Excluding educational policies
d) Societal/Political	Prejudice and Discrimination	Citizenship and residency policies

Source: Klasen (1997)

Now there are some important applications of the concept of 'social exclusion' in social policies. We can identify some groups in the society that are socially excluded due

to the above-mentioned reasons or factors. They may be child labors (they are socially excluded from access to education and future prospects due to family or background or poverty, etc), or disabled children. Moreover, there may be labor market discrimination on the basis of caste or gender.

Micklewright (2002) has applied the concept of social exclusion to children. He has taken Atkinson's three dimensions of relativity, agency and dynamics to discuss the issue. He identified the choice of reference group, the geographical dimension of exclusion and the issue of identifying responsible persons or agents for causing social exclusion of children. He has discussed 'income poverty' as the main cause of social exclusion among children. It hampers children's future prospects by hindering their proper education and well-being. Wootherspoon (2002) also discussed the concept of social inclusion of children. He has identified public education policy as one of the best method of social inclusion of children. He has discussed the issue in context of the aboriginal people of Canada. Furthermore, Klasen (1997) discusses the concept of social exclusion of children in OECD countries, and identified four major sources of social exclusion among the children in such countries, such as, economic, social, exclusion based on birth or background and lastly, societal or political. However, greater incidences of social exclusion are often available in poorer countries, and India provides examples of various kinds of social exclusion. Thorat and Attewel (2007) discussed social exclusion in India occurring through job discrimination. It was observed that caste discrimination exists against *dalits* (low caste groups within Hindus) and Muslims in favor of upper caste Hindus in hiring employees in private sector enterprises of India.

Generally, Gradstein and Sheiff (2004) discussed the dynamics of minority

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exclusion in various fields, like labor market discrimination, restrictions on political participation, limited access to public services, residential segregation policies, etc. The problem of exclusion, or defined alternatively as the absence of integration into the larger society, also remains a problem for the migrant minorities in many richer countries. For example, Saunders (2003) discusses the concept with reference to Australia. The discussion revolves around three main concepts, viz. concepts, measurement and policy and has identified 'social exclusion' as a new dimension/framework for measuring poverty. The consequent maneuvering within the anti-poverty public policies in the presence of exclusion is another issue that has received enthusiastic attention lately.

The concern against social exclusion in richer countries are perhaps more visible than those in the poorer countries, mainly owing to the large income gaps such measurements return for these countries. Tsakloglou and Papadopoulas (2001) have tried to identify groups at high risk of social exclusion in EU countries by using the European Community Household Panel. They found that people with unwarranted employment are at higher risk of social exclusion. Further, children and older people are at higher risk than others. For other EU countries, Hobcraft (2007) identifies social exclusion as one of the three important factors causing inequality and disadvantage in Britain besides the factors of child development. The multidimensionality involved in the social exclusion approach is very useful for analyzing both inter- and intra- generational processes causing inequality or disadvantage.

As against a score of case studies in developed countries, Saith (2001) discusses the feasibility of applying the concept of social exclusion in developing countries. He suggested that developing countries could benefit by incorporating the frameworks of

social exclusion into accepted measurements of poverty incidences, as it would facilitate the identification of the processes that leads to poverty. Clearly, both the level of conceptualization and the extent of applications of the concept of social exclusion is rather limited for the set of developing countries, and this study is one, which would look at several factors that are instrumental in identifying incidences of poverty and deprivation, in addition to standard measures of poverty and inequality in poor countries.

2. Scope and Coverage

Investigating the cases of socially and economically excluded communities would thus provide an adequate benchmark for comparison vis-à-vis a case study of other communities where exclusion may simply be a function of geography – spatial isolation leading to socio-economic deprivation and extreme marginalization. Geographical isolation may be treated as an outcome of low levels of infrastructural development – the lack of roads and railways in particular and other means of communication in general. In some cases this lack of adequate communication makes a distance of a mere 60 to 80 kms from a town or a city a major hurdle for socio-economic development to take place. Further, lack of roads and railways usually makes access to markets difficult and trade and commerce suffers as a result. It is noteworthy that the aspect of exclusion can lead to social tensions, which in effect may not be different from the issue of polarization (Ray, 2006)[1]. However, polarization may not necessarily mean exclusion from the mainstream, which is what we intend to document in this research proposal. In fact, we are not aware of any relevant study that captures the distributional patterns of excluded communities in

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[1] Polarization and Conflict, Debraj Ray, R.C. Dutt Lectures (2006), Centre for Studies in Social Sciences, Calcutta. Vertical polarization refers to the caste polarization in India, while horizontal polarization refers to conflict between Sinhalese and Tamils in Sri Lanka for example.

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India and we offer more on this in the methodology section.

It is important to reconsider the fact that exclusion is marked by many socio-economic factors and covers a broad range of issues from the overtly economic indicators like occupation, wages, human capital, health, to living conditions, political participation and representation etc. many of which, however may be functionally related. The entire gamut of factors may combine to create a space for exclusion and finding out a single constituent answer may be more difficult than one imagines. Similarly, tackling factors leading to exclusion requires multifaceted intervention both from the state as well as the civil society and in most cases strategies for fighting exclusion may be very specific in nature. Thus, it may be argued that while certain measures may be applicable across space others may have to be tailored to suit the requirements of a very unique nature of exclusion that may not be available in other parts of the same country. We intend this pilot study and the so-called predictive model to provide a head start to a more impending assignment – a thorough mapping of all excluded communities in the region for possible interventions from the appropriate quarters.[2]

2.1   Survey and Intervention

While there is some agreement that the present Left Front Government (hereafter LFG) has adopted interventionist strategies in rural Bengal since 1977 that seeks to ameliorate the conditions of the rural poor, many communities have however remained excluded from development efforts of the state. While there have been a lot of studies conducted on poverty and developmental issues in Bengal we do not have a baseline

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[2] The detailed description in section 3 deals with how the model and the methodology can be extended to include a larger body of excluded communities in West Bengal

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survey on exclusion, despite the imminent need to mainstreaming discussions on the subject, not only to address missing issues on inequality, but also to reduce social injustice in an increasingly affluent society. It may thus be argued that a systematic study of exclusion may contribute to our overall understanding of development in West Bengal, both theoretically as well as from the point of view of policies, and in a manner that can be extended as exemplary for other locations with visible problems of social exclusion.

The Centre for Studies in Social Sciences, Calcutta[3] has recently undertaken this detailed primary survey-based study on exclusion in West Bengal. In order to operationalise this pilot study we would *a priori* choose two communities located in two different parts of the state. Though reasons behind their exclusion, we assume to be diverse, the end result is the obvious distance from other communities that have largely benefited from the developmental efforts all around. We choose the *Totos of Jalpaiguri district* and the tribes of *Malti Pargara of the Balarampur block in the district of Purulia*, for our initial foray.

3.   General Methodology

The methodology we propose here has a wider reach than required for this specific study and shall therefore be of limited application here. However, as noted earlier, we intend to extend this study to other regions, where the initial methodology constructed here shall be of veritable use and application. In fact, construction of the proposed index shall only be possible only if the present pilot survey is succeeded by a

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[3] The Centre for Studies in Social Sciences, Calcutta has undertaken and successfully completed several projects granted by national and international agencies, including a recent study on *Rural Decentralization in West Bengal funded by the DFID*, which led to the biggest ever survey on the issue of decentralization in India covering 38,000 households in 18 districts of West Bengal.

larger number of case studies and by creation of a credible cross-section database from different regions of the country. Given the scope of the present study, we confine ourselves to a pilot survey of two distinctly different village communities in rural West Bengal. The communities chosen span the north-south geographical spread of the province and reflects on the proximity issue referred to in the above paragraphs. More specifically, both the TOTO's of Jalpaiguri district in the north of WB and the tribal communities of the Bela gram panchayat within the Balarampur block of the district of Purulia are positioned advantageously close to the national highways and the district headquarters, and yet, the achievements under the regional and national development programs have failed to trickle down to either community. The common thread is therefore the fact that both these communities are excluded from the mainstream economic and social developments, despite easy reach of the concerned authorities and consequently the conditions of living have remained extremely poor forever.

To validate the claim that these (and such, for future survey based results) villages are excluded, we offer a simple method of benchmarking of the indicators that would identify the extent of backwardness. In this regard, we shall first focus on the calculation of the district level averages for the components of the HDI. As it is well known, the HDI is a composite of three basic components of human development: longevity, knowledge and standard of living. Longevity is measured by life expectancy. Knowledge is measured by a combination of adult literacy (two-thirds weight) and gross combined enrolment ratio at the primary, secondary and tertiary levels (one-third weight). Standard of living is measured by purchasing power, based on real GDP per capita adjusted for the local cost of living (purchasing power parity, or PPP). GDP per capita

also serves as a catchall measure for the additional socio-economic variables that are not captured by the health and education components. Clearly, therefore identifying the district mean would imply that all the villages (or GPs, as the case may be) with average HDI lower than the district mean are potential candidates in our analysis.[4] Let us suppose the composite mean (with adequate selection of weights) for the HDI is given by $\widetilde{X}$, then all regions within the district that display average HDI score (X) in the zone $\int_{0}^{\widetilde{X}} f(X)dX$, would qualify for the survey, where $f(X)$ is the distribution of villages (or GPs/households, as the case may be) in the districts. In other words, this implies that our objective would be to construct an index based on the observations from the survey to evaluate the position of a particular GP/village and compare that vis-à-vis the district average. *The methodology is sufficiently inclusive in character to be translated into a study of the province as a whole, where districts with more than proportionate (given the provincial average) share of excluded communities may be treated as 'backward' as per the this newly created index in order to facilitate monitoring and interventionist strategies from the top.* In fact, an investigation into the pattern of this distribution in West Bengal constitutes an independent study in its own merit since the distributional asymmetries can be a significant source of disparity even within the targeted communities. In other words, the central tendencies and moments of the truncated distribution (since we consider communities with HDI levels below the district mean) should be the right statistical parameters we should look into. *The unique feature of the proposed study is that we would not only look at the measurements but also choose our*

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[4] This is the methodological specification that can be directly extended to provide a wider coverage to communities that thrive on living conditions below the basic minimum, and yet are not distinctly categorized as excluded. We also expect to provide certain political-economic explanations to this end.

case studies on the basis of qualitative, social and historical information. Hence, the project is a real collaborative effort between statistical/economic measurements and social-political-anthropological concerns. We re-emphasize, that at this level, we shall have to stop short of constructing the indices mentioned above, primarily because the village are selected as per prior design and therefore does not involve strictly random procedures, which should be the basis for all statistical exercise in order to lend sufficient credibility to the exercise.

In addition, we use the Principal Component Analysis to assign ranks to *each* component variable constituting the major heads for the types of indicators selected in this survey. A general description of the methodology used under the principal-component analysis is given below.

Suppose there are *k* indicators that will be used to construct an index. There are n observations on these k indicators, X_{ij}, i=1,….., k and j=1,…., n. All the X_{ij} variables have already been standardized, i.e. subtracted from their respective means and divided by their respective standard deviations. This is done so that each variable has unit variance, which holds in a large sample. Let us define $X = [X_{ij}]_{nXk}$; the i-th. column of *X* gives all the *n* observations on the i-th. variable.

The Principal Components Analysis addresses the issue of how many dimensions there are or how much independence there really is in the set of k variables or indicators. To be more explicit, we consider the transformation of X's to a new set of variables which will be pair-wise uncorrelated and of which the first will have the maximum possible variance, the second the maximum possible variance among those uncorrelated with the first, and so on. That is to say, we have to find a vector of weights $a_1 = [a_{j1}]_{kX1}$

for the first principal component that will achieve such a transformation of X's, and similarly for the other principal components. The rationality of using Principal Components Analysis for finding the weights of the indicators can be justified by the fact that the weights are chosen on the basis of their relative importance in the variation of the different components.

Thus, denoting the first transformed variable by z_{1i} we can write

$$z_{1i} = a_{11} X_{i1} + a_{21} X_{i2} + \ldots\ldots + a_{k1} X_{ik}, \ i = 1, 2, \ldots\ldots, n.$$

In matrix form $z_1 = X a_1$

where z_1 is nX1 vector and a_1 is a kX1 vector. The sum of squares of z_1 is given by

$$z_1' z_1 = a_1' X' X a_1.$$

We will choose a_1 in such a way that $z_1' z_1$ is maximized. But without any constraint on a_1, the variance will be arbitrarily large. Hence, we normalize a_1 such that $a_1' a_1 = 1$. Thus, the problem is to choose a_1 such that

$$\text{Max } \Omega = a_1' X' X a_1 - \lambda_1 [a_1' a_1 - 1]$$

where λ_1 is the Lagrange multiplier. The first order condition for maximization (note that second order condition is always satisfied) in matrix notation is given by

$$\frac{\partial \Omega}{\partial a_1} = 0$$

which in turn gives the following sets of equations

$$(X' X) a_1 = \lambda_1 a_1.$$

As is evident from the above equation system, a_1 is an eigenvector of X'X corresponding to the root λ_1. There are k solutions of λ_1 of which the one with the largest value will maximize sum of squares as

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$$z_1'z_1 = \lambda_1 \, a_1'a_1 = \lambda_1.$$

Now we define another principal component $z_2 = X \, a_2$. We choose a_2 so that $a_2'X'X \, a_2$ is maximized subject to $a_2'a_2 = 1$ and $a_1'a_2 = 0$. The second constraint ensures that a_1 and a_2 are orthogonal implying that there is no correlation between z_1 and z_2. Corresponding to the maximum eigenvalue of the system of homogenous equations given by the first order condition, we can determine the eigenvector a_2. In this way, we can determine all the k eigenvectors corresponding to the maximum eigenvalue for each principal component.

Denoting all these eigenvalues λ_j, j=1,....,k it can be shown that $\dfrac{\lambda_j}{\sum_j \lambda_j}$ represents the proportionate contribution of j-th principal component to the total variation of the X's and they sum to unity as the components are orthogonal.

As the X_{ji}'s are standardized, these k eigenvectors are also called factor loadings. We consider the first loading factor or the first eigenvector corresponding to the maximum eigen-value of the first principal component. It can be shown that the variation of the j-th. indicator X_j with the first principal component z_1 is given by $\lambda_1 \, a_{j1}^2$ where a_{j1} is the j-th element of a_1. As a matter of fact, $\sqrt{\lambda_1} \, a_{j1}/(\sum_i X_{ji}^2)$ is the correlation coefficient between X_j and the j-th component of z_1. We take $\dfrac{\lambda_1 a_{j1}^2}{\sum_j \lambda_1 a_{j1}^2} = \dfrac{a_{j1}^2}{\sum_j a_{j1}^2}$ as our weight for j-th indicator X_j. The rationale behind this is very simple. The numerator is the variation of X_j with the first principal component z_1 and the denominator gives the sum of the variations of all the X's with z_1. Thus, the weight of the j-th indicator is the proportion of variation of X_j with z_1 in total variations of all the variables with the z_1. The higher the variation of the j-th indicator with z_1, the higher is its weight and *vice versa*.

Clearly the advantage of finding the weights by principal components analysis is that they are determined by the relative variation of the constituent indicators in the data itself. But a disadvantage of this method is that there is no guarantee that the first principal component will have the highest variation with the X variables. And the computational cost becomes prohibitive for finding out the principal component that has highest variation with X variables by checking for all the cases. Secondly, if the first principal component explains the major part of the variation as measured by cumulative R^2, then the weights are satisfactory. But if not, then the weights are based on only a smaller part of the variation in X's. However, in spite of these problems associated with the principal components analysis for determining weights of an index, there is no other satisfactory method to determine weights on the basis of variation in data. The unweighted index assigns the same weight to each variable, which is difficult to justify. All other weighting mechanisms are based on *a priori* value judgements about the relative importance of the constituent variables within an index and are thus arbitrary.

3.1   Data Sources and Future Extensions

However, we have already used this methodology to identify the two communities named above. As argued, such identification shall not be limited to the choice of villages in this study, but would also open up the scope to investigating if there are more communities in the statistical neighborhood of the ones we pick here. In other words, the first step in the proposed research with a larger scope and capacity shall be in constructing the mean HDI for the *backward districts* of West Bengal and using this information to classify the villages (or at the Panchayat level) which lie above or below

the mean. Evidently, we shall use the available information (for example, *West Bengal Human Development Report, DFID report on Rural Decentralization in West Bengal, CSSSC*) in collecting the relevant data on life expectancy, school enrolment, adult literacy levels, per capita income levels and so on and in constructing the mean HDI for each backward district. While this should serve the purpose of identifying a larger set to be used in future studies with a broader scope, the data from the presently identified villages shall be collected by a process of random sampling without replacement, and in this connection we shall use the electoral rolls extensively. As far as the present pilot survey is concerned, we have been able to collect data on 121 households spread over four villages in the two locations mentioned. These locations are as follows: *the villages of Mitrang Gaon, Dhumshi Gaon, Puja Gaon, within the GP named Totopara, in the Madarihat Block of the district of Jalpaiguri; and the village of Malti Pargara in the district of Purulia (Balarampur Block, Bela GP).* The primary survey, as we describe shortly, shall offer a cross-section view of the villages under consideration and the socio-economic conditions the residents of these villages have been living in. In order to accommodate the importance of infrastructure, we have included an indicator that should capture the distance from the nearest city and the cost involved in transportation along with all the basic amenities of life that these communities are deficient in. In other words, the present study shall be an important source of identifying the development deficits and hence the development needs facing these economically and socially isolated communities. These basic amenities include access to electricity, drinking water etc, which should serve as supporting documents towards identifying the efficacy of infrastructural facilities. For the latter part, we intend to use this information to construct

the weighted indicator, by clubbing it with the HDI and offer a composite index for explaining the absolute and relative levels of exclusions. The proposed index would be quite generic in view of accommodate future extensions in the related context and for the proposed mapping of excluded communities for the province as a whole. Furthermore, we may try to devise a modified HDI adjusting for exclusion.

4. Results from the Survey

In line with the aims and objectives of the present survey, CSSSC has identified the following key areas in the villages of Totopara in Jalpaiguri and Bela in Purulia. We provide the village level observations on a variety of aspects including the broad categories of Basic Amenities; Education; Health; Infrastructure; Occupational conditions; Existence and Efficacy of Government Schemes and any other issue that is crucial for a better understanding of the conditions of the minorities as well as the general population in the district. We provide tables for the data across villages to capture the aspects mentioned above. Furthermore, as described above, following each table we shall also present the ranking index of the four villages based on the indicator chosen. The village that receives the *highest index* (weighted or unweighted) is the one that is *least excluded* according to our study, and vice versa. The tables are self-explanatory and each table contains a note explaining the acronyms used.[5] It is also to be noted that the rank indices offered here are for each variable type and we have not made any effort towards compiling all individual ranks for a general rank index.

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[5] Details of the Principal-Component Analysis (PCA) workout is available on request and we offer one correlation matrix and a table of weights corresponding to Table 2 in the text for guidance on the working of the PCA and subsequent choice of weights assigned to each variable X_j, that constitute the broad indicator (see Appendix).

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4.1. Basic Amenities

We begin with a distribution of the Basic Amenities in the four villages under survey and it includes the types and percentage of houses under Kutcha/ Pucca constructions, percentage of electrified houses, the average distance of each house within a specific village from its source of drinking water, the percentage of houses in these villages with access to toilet facilities, and the type of fuel used. Table 2 is rather self-explanatory in measuring the extent of social exclusion of the inhabitants of these villages. The percentage of male population in the villages is surprisingly high at 90% on an average and the level of literacy is no more than 50% at the most. Even among those who are literate, 7.41% in Mitrang Gaon and 5.56% in Puja Gaon have reached the eighth standard. Not surprisingly therefore, no less than 80% of the respondents in these households work as agricultural labor. Table 3 reveals that, although the residents live in their own houses, on an average 90% of these are under Kutcha construction, and except for Puja Gaon (5.56%) no other village covered under the survey has fully pucca constructions. They also report that the land on which they built their houses are their own, and only partially the land belongs to the government (Mitrang Gaon, 3.7%). In terms of access to electricity, the village of Malti Pargara has absolutely no electricity connection. However, the villages in Totopara have on an average 50% of the households covered with electricity.

Table 2: General Background Information of Household (%)

Villages	Religion		Caste	Sex		Education				Occupation	
	Hindu	others	SC/ST	male	female	illiterate	literate (below primary edu)	Primary edu	8th standard	Agricultural labor	others
Mitrang Gaon	100	0.00	100	88.89	11.11	59.26	14.81	18.52	7.41	85.96	22.22
Dhumsi Gaon	100	0.00	100	93.75	6.25	58.82	23.53	17.65	0.00	92.58	22.88
Puja Gaon	100	0.00	100	94.44	5.56	83.33	0.00	11.11	5.56	82.66	16.67
Malti pargara (Purulia)	0.00	100	100	88.52	11.48	72.13	26.23	1.64	0.00	73.39	38.70

Source: Household survey data

Table 2a. **Rank of villages by Household information Index**

Village	HIINDX	Rank	WHIINDX	Rank
Mitrang Gaon	41.65163	2	46.1981818	3
Dhumsi Gaon	42.66009	1	46.86	1
Puja Gaon	38.47151	4	45.3936364	4
Malti pargara (Purulia)	41.40519	3	46.5536364	2

Note:
1) HIINDX=unweighted index, WHIINDX=weighted index
2) The **villages are ranked in descending order** by the respective index.
3) The rank correlation between the two indices is 0.8000 and the simple correlation between the indices is 0.9560.

From Table 2a it is ascertained that Dhumsi Gaon is the best performer (slightly better compared to Mitrang Gaon) in terms of basic characteristics of the village that include literacy levels, occupational attainments and so on. Consequently, Mitrang Gaon ranks second and Puja Gaon turns out to be the worst performer. The subsequent tables follow this system of analysis.

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Table 3: Housing Status (%)

| Village | Ownership of house | Type of house | | | Land | | | Electricity | Fuel | |
		Kutcha	Kutcha-pucca	Pucca	Own	Govt land	others		Wood	Straw
Mitrang Gaon	100.00	92.59	3.70	0.00	92.59	3.70	3.70	59.26	100	0.00
Dhumsi Gaon	94.12	82.35	11.76	0.00	100	0.00	0.00	58.82	100	0.00
Puja Gaon	94.44	94.44	0.00	5.56	100	0.00	0.00	61.11	100	0.00
Malti pargara (Purulia)	100.00	96.72	1.64	0.00	100	0.00	0.00	0.00	65.00	30.00

Source: Household survey data

Table 3a. Rank of villages by Housing status Index

Village	HSINDX	Rank	WHSINDX	Rank
Mitrang Gaon	45.554	1	54.53686	2
Dhumsi Gaon	44.705	3	53.51441	3
Puja Gaon	45.555	2	54.61113	1
Malti pargara (Purulia)	39.336	4	40.78443	4

Note:
1) HSINDX=unweighted index, WHSINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 1.0000 and the simple correlation between the indices is 0.9982.

The major source of fuel for these households is wood and in some cases they depend on the use of straw. The dependence on ponds as the major source of drinking water still continues for all the three villages in Totopara, while almost all the respondents at Malti Pargara has access to tube well. Not surprisingly, the toilet and drainage facilities are largely outside of the houses and on an average the percentage of residents using outside

toilet facilities is 90% except for the village of Puja Gaon, where about 39% of residents

have access to in-house toilet facilities.

Table 4: Source of Drinking Water and Sanitation (%)

Village	Source of Drinking water				Sanitation		Type of sanitation			
	Tube well	Well	Tap	Pond	In house	Out house	Septic tank	Pit latrine	Well-wc	Others
Mitrang Gaon	0.00	0.00	3.70	96.30	7.41	92.59	25.00	12.50	0.00	62.50
Dhumsi Gaon	0.00	0.00	5.88	88.24	35.29	64.71	10.00	30.00	20.00	40.00
Puja Gaon	0.00	5.55	0.00	77.78	38.89	61.11	0.00	100.00	0.00	0.00
Malti pargara (Purulia)	98.36	1.64	0.00	0.00	1.64	98.36	0.00	0.00	0.00	100.00

Source: Household survey data

Table 4a. Rank of villages by Source of Drinking Water and Sanitation Index

Village	SDWSINDX	Rank	WSDWSINDX	Rank
Mitrang Gaon	30	1	41.31707	2
Dhumsi Gaon	29.412	3	39.31661	4
Puja Gaon	28.333	4	39.93954	3
Malti pargara (Purulia)	30	1	49.76654	1

Note:
1) SDWSINDX=unweighted index, WSDWSINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 0.7379 and the simple correlation between the indices is 0.5525.

4.2   Education

Given that there is a meager percentage of people attending schools, the

availability of mid-day meals and other facilities, including books, teacher discipline etc.,

probably does not mean much in terms of the quality of development in these particular

locations. However, it may be worth mentioning that, around 95% of all respondents in

the district of Jalpaiguri consider the regularity of mid-day meals, the taste and cleanliness as acceptable, while only 40% of the residents in Purulia report any level of satisfaction with the same. In fact, it is reported that only 16% consider it clean and suitable for eating. The teacher-related problem continues to be a worry in the village of Purulia, where only 29% of respondents consider the teaching quality as good, and it is not surprising since teacher absenteeism plagues this village. The situation is, however, not too bad for the villages in Totopara. The conditions of education for the children and adolescents in the age group 5-18 is available in Table 6, where across four villages, 25% of the students on an average were never admitted to school. Of those admitted, Puja Gaon in Totopara reports largest percentage of dropouts as well the lowest number of students in the government schools (36%). Conditions are undoubtedly abysmal for the village of Malti Pargara in Purulia, where the percentage of children never admitted to school is at 26. 49%, the dropout rate at 13%, partcipation in government schools very low at 10%, perhaps owing to teacher absenteeism and related problems discussed already. Surprisingly, the region has seen proliferation of private schools with a participation rate nearly double that in government schools. Furthermore, except for the village of Puja Gaon, all other villages suffer from the usual litany of woes concerning educational quality in question, including the presence of government aided schools at less than 50% on average. Respondents taking advantage of unconventional schools and anganwari's is very low mainly because of the unavailability of the same. We are therefore in a way, presenting at every turn the glaring deficits in basic amenities and other facilities that often seem luxuries in a country like India, not necessarily because of inadequacy of resources, but mainly owing to problems of management, information and

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corruption.

Table 5: Educational Facilities (%)

Villages	Midday meal			Book	Teacher		
	Regularity	Tasty	Cleanliness	Availability	regularity	discipline	teaching
Mitrang Gaon	94.12	82.35	100.00	94.44	94.74	89.47	94.74
Dhumsi Gaon	100.00	100.00	87.50	100.00	100.00	87.50	100.00
Puja Gaon	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Malti pargara (Purulia)	40.00	0.00	16.67	90.63	18.75	50.00	29.03

Source: Household survey data

Table 5a. Rank of villages by Educational facilities Index

Village	EFINDX	Rank	WEFINDX	Rank
Mitrang Gaon	92.83714	3	92.75216	3
Dhumsi Gaon	96.42857	2	96.41853	2
Puja Gaon	100	1	100	1
Malti pargara (Purulia)	35.01143	4	33.39671	4

Note:
1) EFINDX=unweighted index, WEFINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 1.0000 and the simple correlation between the indices is 1.0000.

Table 6: State of Education [5-18 years] (%)

Village		Mitrang Gaon	Dhumsi Gaon	Puja Gaon	Malti pargara (Purulia)
Condition	Not Admitted in school	26.32	28.57	21.74	26.49
	Dropout	5.26	5.71	16.30	12.82
	Admitted in Govt. school	61.40	62.86	36.96	10.26
	Admitted in Pvt. School	1.75	0.00	0.00	18.80
	Other	2.58	2.86	8.70	5.98
	Unreported	3.29	0.00	18.00	27.04
Type of school	Govt./ Aided School	42.86	50.00	82.14	47.50
	Pvt. School	0.00	2.38	0.00	17.86
	Missionary School	4.76	0.00	0.00	0.00
	Unconventional School	7.14	0.00	0.00	5.00
Distance	Below 1 km	47.62	37.50	81.48	83.67
	1-2 km	42.86	45.83	7.41	8.16
	2-4 km	4.76	8.33	11.11	0.00
	Above 4 km	4.76	8.33	0.00	2.04
Medium of instruction	Bengali	88.10	70.83	96.43	96.25
	English	11.90	29.17	3.57	0.00
	Hindi	0.00	0.00	0.00	3.75
Government help	Books	94.12	100.00	100.00	98.15
	School dress	2.94	0.00	0.00	1.85
	Stipend	11.76	0.00	0.00	0.00
	Mid-day-meal	79.41	100.00	100.00	88.85

Source: Household survey data

Table 6a. Rank of villages by State of education (5-18 years)

Village	SEINDX	Rank	WSEINDX	Rank
Mitrang Gaon	25.88524	4	26.55985	2
Dhumsi Gaon	26.30333	3	26.14617	3
Puja Gaon	27.8019	1	27.54228	1
Malti pargara (Purulia)	26.40333	2	25.92957	4

Note:
1) SEINDX=unweighted index, WSEINDX=weighted index
2) The villages are ranked in descending order by the respective index.

The rank correlation between the two indices is 0.2000 and the simple correlation between the indices is 0.7990.

Table 7: Reasons for Dropout (%)

Villages	Long Distance	Lack of proper teaching in school	Absence of sanitation & drinking water	Unable to attained school for working	Unable to bear the cost of education
Mitrang Gaon	0.00	0.00	0.00	30.00	20.00
Dhumsi Gaon	0.00	0.00	0.00	100.00	25.00
Puja Gaon	0.00	0.00	0.00	50.00	50.00
Malti pargara (Purulia)	45.45	44.44	25.00	82.35	71.43

Source: Household survey data

Table 7a. Rank of villages by Reasons for Dropout Index

Village	RDINDX	Rank	WRDINDX	Rank
Mitrang Gaon	10	1	5.514266	1
Dhumsi Gaon	25	3	9.967793	2
Puja Gaon	20	2	12.55568	3
Malti pargara (Purulia)	53.734	4	47.15415	4

Note:
1) RDINDX=unweighted index, WRDINDX=weighted index
2) The villages are ranked in ascending order by the respective index.
The rank correlation between the two indices is 0.8000 and the simple correlation between the indices is 0.9707.

Table 8: People Suffering from Diseases (%)

Villages	Malaria	Pneumonia	TB	Hepatitis	Kala-azar	Other
Mitrang Gaon	22.22	7.69	0.00	15.38	0.00	20.83
Dhumsi Gaon	23.53	11.76	0.00	0.00	5.88	5.88
Puja Gaon	17.65	0.00	0.00	41.18	0.00	11.76
Malti pargara (Purulia)	26.32	5.56	5.56	7.89	2.78	63.27

Source: Household survey data

Table 8a. Rank of villages by People Suffering from Diseases

Village	PSDINDX	Rank	WPSDINDX	Rank
Mitrang Gaon	11.02	2	12.50564	2
Dhumsi Gaon	7.841667	1	9.397433	1
Puja Gaon	11.765	3	12.50564	2
Malti pargara (Purulia)	18.56333	4	12.50564	4

Note:
1) PSDINDX=unweighted index, WPSDINDX=weighted index
2) The villages are ranked in ascending order by the respective index.
3) The rank correlation between the two indices is 0.7746 and the simple correlation between the indices is 0.6586.

Table 9: Access to Medical Institution (%)

Villages	Govt. hospital	Pvt hospital	Pvt doctor clinic	Homeopathy	Other	No treatment
Mitrang Gaon	84.21	0.00	0.00	100.00	11.11	28.57
Dhumsi Gaon	83.33	9.09	0.00	100.00	0.00	30.00
Puja Gaon	55.56	0.00	0.00	100.00	0.00	0.00
Malti pargara (Purulia)	93.22	5.71	2.86	100.00	0.00	0.00

Source: Household survey data

Table 9a. Rank of villages by Access to Medical Institution

Village	AMIINDX	Rank	WAMIINDX	Rank
Mitrang Gaon	37.315	1	14.62908	1
Dhumsi Gaon	37.07	2	14.04747	2
Puja Gaon	25.92667	4	5.931567	4
Malti pargara (Purulia)	33.63167	3	12.14505	3

Note:
1) AMIINDX=unweighted index, WAMIINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 1.000 and the simple correlation between the indices is 0.9975.

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Table 10: Primary health Centre for Pregnant Women (%)

Villages	Women visiting Primary health centre	Institution of Primary health centre		
		PHC	Sub-phc	Other
Mitrang Gaon	66.67	100.00	0.00	0.00
Dhumsi Gaon	83.33	100.00	0.00	0.00
Puja Gaon	45.45	87.50	0.00	0.00
Malti pargara (Purulia)	75.86	11.11	77.78	11.11

Source: Household survey data

Table 10a. Rank of villages by Primary health Centre for Pregnant Women

Village	PHCPGINDX	Rank	WPHCPGINDX	Rank
Mitrang Gaon	41.6675	3	34.29849	3
Dhumsi Gaon	45.8325	1	35.17866	2
Puja Gaon	33.2375	4	29.33038	4
Malti pargara (Purulia)	43.965	2	35.84547	1

- PHCPGINDX=unweighted index, WPHCPGINDX=weighted index
- The villages are ranked in descending order by the respective index.
- The rank correlation between the two indices is 0.8000 and the simple correlation between the indices is 0.9702.

4.3 Health

Tables 8-10 provide important information on the health and allied facilities available to the residents of the 4 villages surveyed in the districts of Jalpaiguri and Purulia. In the villages of Mitrang Gaon and Puja Gaon substantial number of residents on average suffer both from Malaria (20%) and Hepatitis (30%). The treatment received is mainly from the government hospitals although in both Mitrang Gaon and Dhumsi Gaon a large number of people often do not receive any treatment, particularly due to the distance to nearest hospital. The village of Malti Pargara reports presence of private hospital where some respondents (about 5-7%) have received treatment before or around

the time of the survey. The pregnant women, however, are reportedly regular visitors to Public Health Centres (PHC) or sub-PHCs or other forms of treatments, although the rate of childbirth at home is close to 90% in all the villages, except for the village of Puja Gaon, where roughly 30% of households claim to have had their childbirth in government hospitals. It is simultaneously reported that the medical attention during childbirth primarily came from trained nurses or trained midwives, and for all the villages taken together no more than 30% (Puja Gaon) of households ever received the child delivery care from the attendant doctor. The major reason cited for not visiting PHCs and government hospitals is either the distance-factor, or in some cases inadequacy of facilities (no ambulances) and absence of doctors (Table 11). Once again, these are well-recognized deficits that continue to affect the quality of living in post-independence India for decades and without case-specific interventions, desired changes appear infeasible. Finally, regarding the level of vaccination, which has attained high participation in most other places in India, these villages show only 20-25% of polio vaccination for the children, and equally low coverage for DPT, Measles, BCG and etc. (Table 12).

Table 11: Information on Child Birth (%)

Villages		**Mitrang Gaon**	**Dhumsi Gaon**	**Puja Gaon**	**Malti pargara (Purulia)**
Place of Birth	Home	91.67	82.35	70.00	91.89
	Govt. hospital	8.33	17.65	30.00	8.11
Person who helped at the time of birth	Doctor	8.33	17.65	30.00	7.41
	Trained nurse	50.00	29.41	2.78	62.16
	Others	41.67	52.94	65.00	27.03
Transport system	Rented car	0.00	0.00	50.00	40.00
	Ambulance	25.00	0.00	0.00	0.00
	Others	75.00	100.00	50.00	60.00
Reasons for not visiting govt. hospital	Lack of proper treatment by doctors/nurses	4.76	0.00	0.00	3.03
	No lady doctor	0.00	23.08	0.00	6.06
	Others	85.71	46.15	92.86	69.70

Source: Household survey data

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Table 11a. Rank of villages by Information on Child Birth

Village	ICBINDX	Rank	WICBINDX	Rank
Mitrang Gaon	35.49727	2	34.127	1
Dhumsi Gaon	33.56636	4	32.16537	4
Puja Gaon	35.51273	1	33.58064	3
Malti pargara (Purulia)	34.12636	3	33.9163	2

Note:
1) ICBINDX=unweighted index, WICBINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 0.6000 and the correlation between the indices is 0.7028.

Table 12: Vaccination [Below 5 years] (%)

Village	Polio	DPT	BCG	Measles	Govt. Institute
Mitrang Gaon	21.95	22.22	22.5	15.79	25.35
Dhumsi Gaon	17.07	17.28	17.5	19.30	19.72
Puja Gaon	21.95	22.22	22.5	26.32	25.35
Malti pargara (Purulia)	39.02	38.27	37.5	38.60	29.58

Source: Household survey data

Table 12a. Rank of villages by Vaccination [Below 5 years]

Village	VINDX	Rank	WVINDX	Rank
Mitrang Gaon	21.562	3	21.63348	3
Dhumsi Gaon	18.174	4	18.08813	4
Puja Gaon	23.668	2	23.52742	2
Malti pargara (Purulia)	36.594	1	36.74854	1

Note: VINDX=unweighted index, WVINDX=weighted index
1) The villages are ranked in descending order by the respective index.
2) The rank correlation between the two indices is 1.0000 and the correlation between the indices is 0.9999.

4.4.   Awareness about Government Programmes and other issues

It is documented in a number of related primary survey-based studies that we have been involved with in different parts of West Bengal and neighboring provinces, that, the lack of awareness about government programs is a much more serious problem than not having appropriate schemes. Every year, both the central and the state governments announce several schemes on rural income generation, irrigation facilities, housing support, educational programs for children and in many cases, the actual beneficiaries have no clue that they may be eligible for taking advantages of several welfare programs. It is generally reported that whatever little information percolates to this level is mainly transmitted through the GP offices and personal contracts, and that the panchayat pradahan in most cases is a silent observer. The four villages under consideration is no exception in this regard, and by all means display the worst possible information gap, except for the much popularized NREGS or the rural employment guarantee program of the current government in power. For other schemes, such as the Indira Awas Yojona (IAY) the level of awareness is low; but even if that was not the case, the actual number of beneficiaries would have still been low typically because these type of programs require partial/matching support from the local government for the initial funds allocated by the central authorities (Table 13). The incapability of the local government in offering matching support often leads to refund of the central grants and the potential beneficiaries face the usual consequences.

Similarly, not more than 25% of the residents in Jalpaiguri (Purulia reports a better awareness at 67%) are aware of the Sarvasiksha Abhijan (SSA) and given the general conditions of existence it is hard to comprehend that full awareness about such

programs would be of significant help to the community. It is somewhat surprising that despite increasing participation in self-help groups, NGOs and panchayati raj institutions (Table 14), neither the level of awareness nor the conditions of existence show marked changes. In fact, access to media and other sources of information and communication have certainly improved, and almost 50% of the respondents in Dhumsi Gaon have access to television. It seems nevertheless, that the advantages one receives from processing this information, has remained seriously constricted by the lack of human capital, health and other resources and would continue to be a decisive factor in keeping these communities locked in their world of deprivation.

Table 13: Awareness about Government Programmes (%)

Village	SGSY	NREGS	IAY	OAWP	IRR	DWP	SSA	LCBP
Mitrang Gaon	14.29	70.37	0.00	0.00	14.29	100.00	0.00	25.00
Dhumsi Gaon	23.08	41.18	20.00	7.69	0.00	100.00	0.00	0.00
Puja Gaon	20.00	77.78	13.33	22.22	0.00	100.00	25.00	0.00
Malti pargara (Purulia)	40.00	58.18	6.06	0.00	0.00	0.00	66.67	25.00

Source: Household survey data

Table 13a. Rank of villages by Awareness about Government Programmes

Village	AGPINDX	Rank	WAGPINDX	Rank
Mitrang Gaon	27.99375	2	31.12198	2
Dhumsi Gaon	23.99375	4	30.70381	3
Puja Gaon	32.29125	1	35.83113	1
Malti pargara (Purulia)	24.48875	3	23.36112	4

Note:
1) AGPINDX=unweighted index, WAGPINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 0.8000 and the correlation between the indices is 0.7814.

Table 14: Participation in Political and Civil Societies (%)

Villages	Type of forming organization			Participations in Institution				
	Voter list	Importance of giving vote	Regularity in giving vote	Panchayat	Educational inst	Religious inst	SWO	NGO
Mitrang Gaon	81.48	100.00	100.00	11.11	11.11	88.89	32.00	42.31
Dhumsi Gaon	82.35	22.5	100.00	23.53	75.00	94.12	62.50	68.75
Puja Gaon	100.00	17	100.00	0.00	0.00	88.89	21.43	66.67
Malti pargara (Purulia)	53.33	100.00	93.44	4.26	0.00	2.17	6.52	50.00

Source: Household survey data

Table 14a. Rank of villages by Participation in Political and Civil Societies

Village	PPCSINDX	Rank	WPPCSINDX	Rank
Mitrang Gaon	58.3625	2	62.25461	2
Dhumsi Gaon	66.09375	1	69.04338	1
Puja Gaon	49.24875	3	52.0707	3
Malti pargara (Purulia)	38.715	4	39.35786	4

Note:
1) PPCSINDX=unweighted index, WPPCSINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 1.0000 and the correlation between the indices is 0.9979.

Table 15: Access to Media and Communication (%)

Village	Newspaper	Radio	TV	Phone	Mobile
Mitrang Gaon	3.70	55.56	29.63	100.00	3.70
Dhumsi Gaon	17.65	41.18	47.06	100.00	29.41
Puja Gaon	5.56	50.00	16.67	100.00	0.00
Malti pargara (Purulia)	5.26	3.51	3.51	100.00	0.00

Source: Household survey data

Table 15a. Rank of villages by Access to Media and Communication

Village	AMCINDX	Rank	WAMCINDX	Rank
Mitrang Gaon	38.518	2	15.37395	2
Dhumsi Gaon	47.06	1	32.4906	1
Puja Gaon	34.446	3	10.15569	3
Malti pargara (Purulia)	22.456	4	2.868386	4

Note:
1) AMCINDX=unweighted index, WAMCINDX=weighted index
2) The villages are ranked in descending order by the respective index.
3) The rank correlation between the two indices is 1.0000 and the correlation between the indices is 0.9477.

5. Concluding Remarks

It is needless to mention that the conditions of certain communities, which the above sections delineate, is only the tip of the iceberg as far as state level neglect and inefficiencies in India are concerned. The political practices of clientele formation between the political parties and often the helpless subjects has been one of the most useful strategic instruments for remaining in power in both West Bengal and some other provinces of India. Consequently, what we witness above is perhaps not totally unexpected. However, the extent of deprivation that these communities face is quite at the extremes, and that strongly calls for detailed investigations into their existing conditions. This study has been based on a pilot survey and since it raises more questions than can be answered within its limited scope, definitive analysis needs to be supported by future studies with much more in-depth consideration of socio-economic, health, infrastructure and political conditions for facilitating case-specific and contextual interventions from responsible quarters.

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Appendix: Selection of Weights under PCA

Table A1. Correlation matrix of indicators for Household information Index (for Table 2):

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11
X1	1.00										
X2	-1.00	1.00									
X3	.	.	.								
X4	0.61	-0.61	.	1.00							
X5	-0.61	0.61	.	-1.00	1.00						
X6	-0.21	0.21	.	0.32	-0.32	1.00					
X7	-0.57	0.57	.	-0.52	0.52	-0.63	1.00				
X8	0.91	-0.91	.	0.33	-0.33	-0.60	-0.21	1.00			
X9	0.57	-0.57	.	-0.05	0.05	0.12	-0.74	0.45	1.00		
X10	0.86	-0.86	.	0.56	-0.56	-0.57	0.09	0.92	0.13	1.00	
X11	-0.96	0.96	.	-0.71	0.71	-0.08	0.78	-0.74	-0.63	-0.69	1.00

Table A2. Weights for Household information Index (for Table 2):

Principal Component	Eigen value	Cumulative R-Squared	Indicators	Weights
1	6.01427	0.6014	X1	0.1617739
2	2.37965	0.8394	X2	0.1617739
3	1.60609	1	X3	0
4	0	1	X4	0.0877646
5	0	1	X5	0.0877646
6	0	1	X6	0.0009542
7	0	1	X7	0.0683722
8	0	1	X8	0.1147252
9	0	1	X9	0.045021
10	0	1	X10	0.111858
			X11	0.15999304

Centre for Studies in Social Sciences, Calcutta

BASE LINE SURVEY For UNICEF Villages

Sponsored by

Ministry of Minority Affairs
Government of India

Village Schedule

1. State:

2. District:

3. Block:

4. Gram Panchayat

5. Village:

6. Village Code:

7. Investigator's name

8. Investigators Signature

9. Date and Time

1. BASIC POPULATION DATA

Overall Population*

		2001	1991
1.	No. of Households		
2.	No. of Males		
3.	No. of Females		
4.	No. of Literate Males		
5.	No. of Literate Females		
6.	No. of Schedule Castes		
7.	No. of Schedule Tribes		
8.	Total Population		

* To be constructed from census records.

2. FACILITIES

2.1 Electricity

2.1.1. Is electricity available in the village: (Yes-1; No-2) ☐

 (if no Skip next)]

2.1.2 Number of households with electricity

	Category						
	Hindu	Muslim	Christian	Sikh	Buddhist	Parsi	Others
1. Domestic							
2. Agricultural							
3. Commercial							
4. Other (Specify)							

2.1.3. On average for how many hours per day electricity available? ☐

2.1.4. Was electricity available

  (a) 5 years ago, for how many hours per day ☐

  (b) 10 years ago, for how many hours per day ☐

2.1.5. Did your village become de-electrified? (Yes-1; No-2) ☐

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2.2 Drinking Water

Type	Functioning (yes-1; no-2)	Total No.	Common to all	Separate for each community						
				Hindu	Muslim	Christian	Sikh	Budhist	Parsi	Others
1. Public Well										
2. Private Well										
3. Public Tubewell										
4. Private Tubewell										
5. Public Stand post										
6. Tap Water Inside House										
7. Tank/ River										
8. Other (Specify)										

3. Toilet Facilities

Type	Common to all	Hindu	Muslim	Christian	Sikh	Buddhist	Parsi	SC	ST	Others
(i) Septic Tank										
(ii) Service Latrine										
(iii) Soakage PIT/Sulabh										
(iv) Total Sanitation Campaign (TSC)										
(v) Others (specify)										

4. Education Facilities

Where do people go for

Type	Place		Distance* (Km.)	Type of Approach Road**	Number of students (Boys/Girls/Co-ed)	Language of instruction @	Whether taught in minority language ψ
	Name	Code					
1. Primary School (Boys/Co-ed)							
2. Primary School (Girls)							
3. Middle School (Boys/Co-Ed)							
4. Middle School (Girls)							
5. High/Higher Secondary (Boys/Co-ed)							
6. High/Higher Secondary (Girls)							

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7. Technical Education (Vocational, ITI)						
8. Madrasha						
9. Missionary School						
10. SSA						
11. College						
12. Engineering College (Degree)						
13. Engineering College (Diploma)						

Code: Boys-1; Girls-2; Co-ed-3
*Within village-1; within block-2; within panchayat-3; within District-4
**Type of approach road: Pucca-1; Semi-Pucca-2; kutcha-3
@ Mother tongue-1; Other Languages-2
Ψ Yes-1; No-2

5. Health Facilities

5.1

Type	Place		Distance* (in km.)	Type of Approach Road**	How do you commute?
	Name	Code			
1. Sub-Centre					
2. Primary Health Centre					
3. Hospital/Dispensary/Clinic					
4. Private Hospital/Nursing Home					
5. Maternity/Child Care Centre					
6. Family Planning Clinic					
7. Chemist/Medicine shop					
8. Other (Specify)					

*Within village-1; within block-2; within panchayat-3; within District-4
**Type of approach road: Pucca – (1): Semi-Pucca – (2); kutcha – (3)

5.2. New Facilities at PHC/Sub-centre(Mention name)

Sl. No.		Auxiliary Nursing Homes	Sub-centre	PHC
1.	Medicine			
2.	Doctors			
3.	Regularly available			
4.	Pathological Laboratory			
5.	X-Ray			
6.	Beds			
7.	Other (Specify)			

Pl
Please mention in numbers OR use the code: Yes-1, No-2.

5.3. Other Facilities

Type	Place		Distance* (in km)	Type of Approach Road**
	Name	code		
1. Block HQ				
2. Nearest Town				
3. Nearest Bus Stop				
4. Nearest Regular Market				
5. Nearest Rail Station				
6. Nearest Post Office				
7. Commercial Banks				
8. Gram Panchayat Office				
9. Fair Price Shop (Ration Shop)				
10. Other General Shop				
11. Nearest Mandi/Market				
12. Veterinary (Centre/Sub Centre)				
13. Other (Specify)				

* Within village-1; within block-2; within panchayat-3; within District-4
**Type of approach road: Pucca –1: Semi-Pucca –2; kutcha –3

6. VILLAGE ORGANISATIONS

Are organizations of the following types active in the village?

Organisation	Functional
(a) Cooperative	
1. Credit	
2. Agricultural inputs	
3. Production of Khadi	
4. Marketing	
5. Dairy Coop.	
6. Others (specify)	
(b) Workers Organisations/ Unions	
(c) Farmers Organisation	
(d) Voluntary Organisations	
(e) Religious/Caste Organisations	
(f) Political Organisations	
(g) Cultural Organisations	
(h) Youth Mandal	
(i) Self-Help Group (SHG)	
(j)Flood Relief Village Security Force	
(k) Other (Specify)	

*Active-1; Fairly Active-2; Not Active-3

7. LAND USE AND TRANSFERS

7.1. Current Overall Utilisation of Land (mention in hector) _____

	2006	2007
1. Forest		
2. Uncultivable		
3. Non-Agricultural Uses		
4. Cultivable Waste		

5. Pasture/Grazing		
6. Orchards etc.		
7. Other Fallow		
8. Current Fallow		
9. Net Area Sown		
10. Area Sown more than once		

Source: Village Records from the Block Office, KPS, ADO

8. Workmanship/Handicrafts

(a)Are the villagers appointed in any kind of workmanship and handicrafts? (Yes-1, No-2)

(b)If yes, mention the type of work.

(c)Approximately how many households are involved in this type of work? (mention number)

(d)Where do they sell their products? (within village-1; nearest market-2; town-3; local and outside-4)

(e)Are there any problems in this type of work?

    (1)Availability of raw materials (Yes-1, No-2)

    (2)Marketing (Yes-1, No-2)

9. Crop Productivity/Yield and Prices.

9.1. Crop Operations and Timings

		Name of the Crop							
1. Average Yield (Excluding Harvest share)									
2.Harvest Share (%)									
3.Minimum and Maximum prices at which crops were sold last year (Rs. Per quintal)	Max								
	Min								

Source: KPS/ADO

9.2. Innovation

(1) Current Inputs

	No. of Cultivators Using	Coverage of Land
1. Canal Irrigation		
2. Public Tubewell Irrigation		
3. HYV Seeds Paddy		
4. HYV Seeds Wheat		
5. Chemical Fertilisers		
6. Pesticides/Insecticides		
7. Other (Specify)		

9.3. Capital Inputs

	Number of Cultivators	
	Owning	Using
1. Private Pumpset/Boring		
2. Tractor		
3. Power Tiller		
4. Thresher		
5. Seed Drill		
6. Improved Cattle Livestock		
7. Pucca Grain Storage		
8. Other (Specify)		

9.4. CREDIT

What are the main sources of credit? (in order of importance)

Type of Household	Reason*	Source**				
		1	2	3	4	5

1. Labourers						
2. Small Cultivators						
3. Medium /Larger Cultivators						
4. Artisans/Other Business						

Reason *
1. Meeting sudden Expenses or consumption needs
2. Meeting current cultivation costs;
3. Financing investments in machinery or land
4. Medical treatment/Hospital expenses

Source**: 1. Institutional; 2. Landlords/Employers; 3. Money lenders; 4. Friends/Relatives, 5. Other

1O. COMMUTING AND MIGRATION

(i)   Over the last 10 years, have the wages of casual labourers changed? (Increased-1; Decreased-2; Remained the same-3)

(ii) Do some people who usually live in the village go to work outside the village daily, if yes:

Type of Work	Where*	Number
1		
2		
3		
4		
5		

* neighbouring village-1; Block-2; District HQ-3; neighbouring state-4

(iii) Do some people who usually live in the village, go to work outside the village for a longer period (3-8 months)? Yes-1, No-2. if yes:

Type of work	Where*	Number	How organized**	Approximate monthly income
1				
2				
3				
4				

*: Within district-1; Within state-2; Outside state-3; Outside country-4; Other(Specify)-5
**: Through an outside contractor-1, Through Local intermediary of Contractor-2; Through Relatives Friends-3; Villagers seek work in a Group-4; Other(Specify)-5

11. Commuting for education

11.1.   How many children go to college/Higher secondary school?

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Boys	Girls	Mode of Transport*

* on-foot-1; Bus-2; Car/Taxi-3; Cycle-4; scooter/motorcycle-5

12. Prevailing Wages

Task	Male		Female		Children	
	Cash	Kind	Cash	Kind	Cash	Kind
Type						
1.Prevailing agri. Wages						
2.Ploughing						
3.Weeding						
4. Harvesting						
5. Threshing						
6. Non-agri. wages						
7. Wages for unskilled labour						
8. Wages for skilled labour						
9. Government programmes						

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13. Information related to Schemes/Programmes

	Total	Hindu	Muslim	Christian	Sikh	Budhist	Parsi	SC	ST
IRDP/PMGRY									
SGSY									
NREGA									
PMGSY									
IAY									
Other									

13.1. In the last 5 years, have the schemes undergone any changes? (Increased-1; Decreased-2; Remained same-3)

13.2. Pension Scheme

(a) How many pension recipients are there?

	In Total	Assisted Since 2002-2003	Assisted Last year
Old Age			
Widow			

14. EDUCATION

(a) School Enrolment

HOW MANY CHILDREN FROM THE VILLAGE ARE ENROLED IN AND REGULARLY ATTEND THE LOCAL PRIMARY SCHOOL OR SCHOOLS, BY GRADE, MALE/FEMALE AND IF POSSIBLE ALSO MAJOR CASTE GROUPS:

Grade		Male		Female	
Grade I	1. Hindu				
	2. Muslim				
	3. Christian				
	4. Sikh				
	5. Budhist				
	6. Parsi				
	7. Others				
Grade 2	1. Hindu				
	2. Muslim				
	3. Christian				

	4. Sikh				
	5. Budhist				
	6. Parsi				
	7. Others				
Grade 3	1. Hindu				
	2. Muslim				
	3. Christian				
	4. Sikh				
	5. Budhist				
	6. Parsi				
	7. Others				
Grade 4	1. Hindu				
	2. Muslim				
	3. Christian				
	4. Sikh				
	5. Budhist				
	6. Parsi				
	7. Others				

Source: Local School Teacher

(b) Physical Structure of the School

1. Type of Structure:

Katcha/Thatch-1; Katcha/Tile-2; Semi pucca-3; Pucca-4)

2. Main Flooring Material:

1- Mud; 2- Brick; 3- Cement, Stone, Tile; 4-Other

3. How many classroom are there? (Number)

4. Does the school have usable blackboards?

(yes-1; no-2)

5. Are desks provided for students?

(Yes for all students-1;Yes for some students-2 No.-3)

No. of Male Teachers No. of Female Teachers

6.How many teachers are currently teaching Classes 1-4?

No. of Male Teachers   No. of Female Teachers

1

7.How many teachers were present at the school on the day of the visit?

8. Does the school have toilet facilities?

(yes-1; no-2)

9. Does the school have drinking water facility?

(yes-1; no-2)

10. Methods adopted to form the Village Education Committee:

15. Health

15.1.Does the Government Health Staff visit the village from time to time? Yes-1; No-2

How many visits did they make in the Last Year?

Type of Staff	No. of Visits
Medical Officer	
Lady Health Visitor	
A.N.M.	
Malaria Inspector	
Health Educator	
Vaccinator	
Other (Specify)	

15.2. Where do most villagers go for medical treatment?
(Government Health Center-1; Private Doctors/Dispensaries-2; Quack-3)

15.3. DEVELOPMENT PROGRAMMES

S.No	Name of Project	Purpose	Sponsored by *	Whom is it for? **
1				
2				
3				
4				
5				
6				
7				
8				
9				

* Government-1; Govt/Foreign-2; Political Party-3; Other-4
** Poor-1; Landless-2; Women-3; SC/ST-4; For everyone-5; Minority-6

2

16. NREGA (Development Programmes)

16.1. Has there been any NREGA-supported employment scheme in this village over the past 12 months?

(1- Yes; 2- No) (If no shift to the next question)

In the last year:

List All the schemes which were implemented under the above programmes Sl. No.	Type of programme	How much money was allocated? (In Rs.)	Were any local people hired to work under the scheme? (1-Yes; 2-No)	How many people worked? Number		For how many days?		Wage (Per day (Rs/day)		Was the project completed? (1- Yes; 2-No)
				Men	Women	Men	Women	Men	Women	

17. NREGA

(a) Number of cardholders:

Hindu	Muslim	Christian	Sikh	Budhist	Parsi	SC	ST

(b)Number of people benefited:

Hindu	Muslim	Christian	Sikh	Budhist	Parsi	SC	ST

(c)Assessment of the NREGA scheme

3

Very satisfied-1; Not happy-2; Very unhappy-3; Don't know-4

(d)Usefulness of NREGA
Very useful-1; Useful-2; Not very useful-3; Don't know-4

18. COMMON PROPERTY RESOURCES

18.1. What are the main common property resources (CPRs) in the village? Their uses and encroachments on them?

Main CPRs	Amount of Land	Are they in use? (Yes-1; No-2)	If yes, which class of people? Ψ	Any encroachment? (Yes-1; No-2)	By whom?
Forest					
Village pond					
Pasture					
Ahar/Cattle-pen)					
Other (specify)					
Schools lawn/Building					
Any other govt. building					

Ψ High Caste-1; Big Landlords-2; Politically/socially powerful individual-3; Every household-4

18.2 Non-formal Panchayat in the Village

1. Is there any caste panchayat or any other type of panchayat?
   (Yes-1; No-2)

2. Whether non-formal panchayat is more important and active in village and social life including policy and decision making than the formal panchayat

3. Is there any clash between the formal and non-formal panchayat in the village.
   (Yes-1; No-2)

18.3 Self Help Group (SHG)

1 Does your village have any SHG
   (Yes-1; No-2)

Serial No: Name   Place of work
Number of SHGs

4

1.

2.

3.

4.

5.

18.4 Report on the Aganwadi (ICDS Centre)

1. Where is it located?
(Governement residence-1, Private residence-2)   ------------------------
------

2. Condition of the house
(Good-1, Bad-2, Satisfactory-3)   ------------------------
----

3. Integrated Child Development Scheme
(Four Facilities Offered by the Center)

1. Mental Development of the Child   ------------------------
    ----

2. Health and Nutrition (0-6 years)   ------------------------
    ----

3. Whether   malnutrition,   ill-health   is   reducing?
    _____

4. Whether   mother   and   children   receives   facilities   from   the   ICDS?
    _____

(Yes-1, No-2)

5.   Whether   De-enrollment   has   decreased?
    _____

(Yes-1, No-2)

4.Number of mother and children visited the ICDS/supported by the ICDS in the last one month

(a) Mother _____   Children _____

5. How many times did the ICDS supervisors visit the centre? _____

6. Are you satisfied with the functioning of Aganwadi? _____

19. Public Distribution System (Ration Facilities)

1. Is there PDS shop in the village: Yes ☐ No ☐
2. If yes, then how many shops are there: ☐
3. If no, then the distance of the PDS shops from your village: km ☐
4. No. of ration card holders in the village ☐

Type of Card	Total	Hindu	Muslim	Christian	Sikh	Budhist	Parsi	SC	ST
a.Annapurna									
b. Antyodaya									
c. BPL									
d.APL									

How many households generally purchase from PDS (mention number) ☐

1. General Background Information

1.1 State _____
_____

1.2 District

1.3 Block _____
_____

1.4 Village

1.5 Household Code _____
_____

1.6 Village Code

1.7 Name of the Head of Family
_____

1.8 Name of Respondent
_____

1.9 Address
_____
_____

1.10 Religion _____

(Hindu – 1, Muslim – 2, Christian – 3, Buddhist – 4, Parsi – 5, Sikh – 6, Others (Specify) – 7)

1.11 Caste Category _____ Others (Specify)
_____

(SC – 1, ST – 2, OBC – 3, General Caste – 4, Others – 5)

Mother Tongue

Other Language

1.12 Two main languages spoken in the household

(Hindi – 1, Urdu – 2, Punjabi – 3, Bengali – 4, Tamil – 5, Kannada – 6, Telegu – 7,
Malayalam – 8, Gujrati – 9, Marathi – 10, Maithili – 11, English – 12, Others (Specify) – 13)

Other
_____

7

2. HOUSEHOLD INFORMATION

ID No.	Name	Sex (Male-1, Female-2)	Age	Marital Status (*)	Educational Level (#)	Main Occupation ($)	Residential Details (@)	Duration of stay at the residence (Ω)
1. φ								
2. ψ								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Code: ID No. : φ – Head of the household, ψ – Respondent

*   Marital Status: Unmarried – 1, Married – 2, Widow/Widower – 3, Divorced/Separated – 4, Others(Specify) – 5

Educational Level: Illiterate – 1, Literate (below primary) – 2, Primary – 3, Middle(Class VIII) – 4, Vocational training/course(ITI etc.) – 5, Secondary – 6, Higher Secondary – 7, Technical Diploma/Certificate – 8, Technical/Professional Degree (medical,engineering,law ect.) – 9, Graduate degree (General) – 10, Post-graduate degree (General) – 11, Others (Specify) – 12.

$ Main Occupation: Agriculture – 1, Agri labour – 2, Family business – 3, Regular salaried (government) – 4, Regular salaried (private) – 5, Temporary Casual labour (public works) – 6, Unemployed – 7, Only domestic work – 8, Domestic work and collecting necessary goods for domestic purpose – 9, Rentiers /pensioners/ remittance –

10, Too old/too young (unable to work) – 11, Working in other unorganized sectors – 12, Students-13, Others (Specify) -14.

@   Residential Details: Permanent Resident – 1, Temporary migrant (short term, 3 – 8 months out) – 2, long term migrant (out for 9 or more months)-3, Daily commuters – 4.

Ω   Less than 5 years-1, 5-10 years-2, More than 10 years-3.

3. MIGRATION

Does anyone in your family live away from home? If yes please answer the following _____s ($)

Duration of stay outside residence? *	Place of Migration **	Reason for migration? Occupation ***	Do the migrants send money to the household? $	Do you need to send money to students, if at all? $

Codes: $ Yes – 1, No -2.
*   Short term (3-8 months) – 1, Long term (more than 8 months) – 2
**   Within district (Village) – 1, Within district (City/Town) – 2, Within state (Village)
    – 3, Within state (City/Town) – 4, Outside state (Village) – 5, Outside state
    (City/Town) – 6, Outside country – 7
***   Professional, technical and related work – 1, Administrative, managerial and
    supervisory work – 2, Clerical and related work – 3, Sales/Business work – 4,
    Cultivation, Fishery, Hunting, Forestry and related work – 5, Driver,
    Machinist, Labourer – 6, Students – 7, Other – 8.

4.   CURRENT EDUCATIONAL STATUS (5-18 years of age)

4.1. General Information

ID No.	Schooling Status @	Educational Level #	Type of school *	Distance of school **	Medium of instruction ***	Learning of minority language (yes-1, no-2)	Sex $	Govt. assistance $$

Code: @   Never enrolled – 1, Left after enrollment – 2, Enrolled but doesn't go to school – 3, goes to

informal educational institution – 4, enrolled in govt. school and is regular – 5, goes to

private school -6, Other (Specify) – 7.

Illiterate – 1, below primary or informal education – 2, primary – 3, middle(class-VIII) –

4, management/commercial school course – 5, secondary – 6, higher secondary – 7

*   Government – 1, Govt. aided – 2, Private – 3, Madrasa – 4, Missionary – 5, Informal

– 6, Other (Specify) – 7

**   Within 1 km – 1, 1 – 2 km – 2, 2 – 4 km – 3, above 4 km – 4.

***   Bengali – 1, English – 2, Bengali and English – 3, Hindi – 4, Urdu – 5, Local language – 6,

Other (Specify) – 7.

$ Male – 1, Female – 2

$$ books – 1, school uniform – 2, scholarships – 3, mid-day meal – 4, cycle – 5, Other

(Specify) – 6

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4.2 If anyone dose not go to school, why?

	School is far from the student's residence *	Inadequate Teaching *	Inadequate drinking water, classroom/ bathroom facilities, *	Cannot attend school due to work *	Cannot afford school education *	Other reasons (Specify) *	Not applicable *
Boy							
Girl							

* Yes-1, No-2

4.3 Which language would you prefer for your children's education?
    Mother tongue—1, Other language-2 (Specify)   For
Boys_____

                                                    For
Girls_____

4.4 (a) Questions about mid-day meal for the households having students:
    Whether the food is:

1. Of quality *

2. Hygenic *

3. Available regularly $

* Good-1, Bad-2, Satisfactory-3
$ Yes-1, No-2

(b) Do the students receive school supplies?
    (slates, books, notebooks etc)

(All students receive school supplies-1, Most of them receive-2, Some of them receive-3, Few students receive-4, Do not receive-5)

(c) Do teachers:

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(1) Come to school/class on time? (Punctual) *

(2) Maintain discipline?*

(3) Teach sincerely? $

  * Yes-1, No-2
  $ Good-1, Bad-2, Satisfactory-3

4.5 Aspirations of Parents of Current Students (Parent's Comments)

Type of preferred education for you son

Type of preferred education for your daughter

Code: ITI/Vocational Course-1, Secondary-2, Higher Secondary-3, Graduate-4, Postgraduate-5, Technical Diploma(Engineering)-6, Technical Degree (Law/Doctor/Engineering etc)-7, Other (Specify)-8.

4.6 TECHNICAL TRAINING

ID No.	Field of Training*	Duration of training (months)	Place of training **	Whether diploma/ certificate awarded (Yes-1, No-2) If yes— mention year	Total expenditure incurred during the training. (Rs.)	Whether useful (Yes-1, No-2)

Code:* Tailoring-1, Weaving-2, Auto Mechanic-3, Computer trained-4, Electronics-5, Electrical-6, Training in Driving-7, Handicrafts-8, Apprenticeship-9, Hereditary-10, Other (Specify)-11

** Government Institute-1, Private Institute-2, Master craftsmen-3, Family members-4, Apprenticeship/On the job training-5, Other (Specify)-6.

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4.7   Are you or anyone in the household interested to take training in any skill?

(Yes-1, No-2)   [ ]

4.8   If Yes- then what type of training (Use Code under 4.6)   [ ]

4.9   Are you willing to spend for the training? (Yes-1, No-2)   [ ]

5. HEALTH AND FAMILY WELFARE

5.1.1 Have you or anyone in the household experienced any serious illness in the last one year?
 (Yes-1, No-2)

Malaria   [ ]   Typhoid   [ ]   Kal-azar   [ ]
Pneumonia

Skin Disease   [ ]   Women related disease   [ ]   TB   [ ]
Filaria

Leprosy   [ ]   Polio   [ ]   Jaundice   [ ]   Other (Specify)   [ ]

5.1.2 Where do you go during major illness? (Yes – 1, No – 2)

Govt. Hospital   [ ]   Private Hospital/Nursing Home   [ ]

Private medical practitioner/Clinic   [ ]   Homeopathy   [ ]   Jack

Others   [ ]   Specify _____

No treatment   [ ]

5.1.3 How much did you spend for any major illness during last year?

Rs. _____   Not applicable   [ ]

Not applicable – 1.

5.2 Immunization of children below 5 years

ID No.	Age (in months)	Polio	DPT	BCG	Measles	Agency of immunization (Govt. agency-1, Pvt. Agency-2)	If not immunized, reasons *

Code: *   Not aware – 1, Facility for immunization is very far away – 2, Others (Specify) – 3.

5.3 Details of children born in the last 5 years

ID No. Child (0-5)	ID No. Mother	Place of delivery *	Assistance in delivery **	Transport used ***	Reasons for not using govt. facility #	Present age of the child (month/year)	Did you need any reference? $	If yes, who referred?

Code: *   In home – 1, Hospital – 2, Private Hospital/Nursing home – 3,
Others(Specify) – 4

        **   Doctor – 1, Nurse – 2, Trained midwife – 3, Untrained midwife – 4,
                  Others(Specify) – 5, Don't know – 6.

        ***   Own vehicle – 1, Hired vehicle – 2, No transport – 3, Ambulance – 4,
Others(Specify)-5.

        #   Too far – 1, Lack of cleanliness in govt. hospitals – 2, Inadequate care by
doctors/nurses –
                  3, Non-availability of lady doctors – 4, Others (Specify) – 5.

        $ Yes-1, No-2

5.4 Insurance Coverage of the family

		Amount (Rs.)
a) Health Insurance (for how many)		
b) Life Insurance (for how many)		
c) Crop Insurance (how many bighas)		
d) Insurance for cattle		
e) Other property insurance		
f) Others - Specify		

6.   Participation in Political and Civil Societies

	Type of Organization	Type of participation
(a)	Are your eligible family members enlisted in Voter's List (Yes-1, No-2, Not all of them-3)	
i)	If no, why? @	
(b)	Do you think that voting is an important right? (Yes-1, No-2)	
(c)	Do you and your family members vote regularly? (Yes-1,	

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	No-2)	
(d)	If no, why?	
(e)	Is anyone in your household participating in any of the institutions below?	
(f)	Panchayat *	
(g)	Educational Institution *	
(h)	Religious Institution *	
(i)	Professional Bodies(Union,Association) *	
(j)	Social Organization (caste panchayat, van panchayat, water association etc.) *	
(k)	SHG (youth clubs, mahila mandals etc.), NGO etc. *	
(l)	Others (Specify) *	

@   Denied to enlist the name– 1, Absent during the preparation of Voter's List – 2, Name deleted –
        3, Others (Specify) – 4 .

*   Yes-1, No-2

7.1. Other Self-employment (except agriculture) – Employment and Earnings in last one year

Serial No.	Main occupation of the household	Type of Work	Type of Work	Type of Work
1.0	Man days	███████	███████	███████
1.1	ID No.			
1.2	ID No.			
1.3	ID No.			
1.4	ID No.			
2.	Expenditure on hired labour (Rs.)			
3.	Other Input Cost (Rs.)			
4.	Gross Income (Rs.)			
5.	Net Income (Rs.)			
6.	Total Investment (Rs.)			
7.	Total fixed capital (Rs.)			
8.	Total working capital (Rs.)			

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7.2 Problems faced in operating your business venture

Sr No.	Problems	Code
1.	Credit of cheaper rate of interest	
2.	Inaccessibility of credit from Govt. banks/institutions	
3.	Electricity	
4.	Shortage of raw material	
5.	Price of raw material	
6.	Technology	
7.	Skilled/Trained manpower	
8.	Market	
9.	Lack of working space/place	
10.	Lack of co-operation from govt. officials	
11.	Others (Specify)	

Code: Problem – 1, No problem – 2, Don't know – 3.

7.3   1. Are your family members looking for more work? (Yes-1, No-2)

2. If yes, what type of work are they looking for? (list three according to rank)

Sl. No.	Type of Work	Trained (Yes-1, No-2)	Rank
1	Agriculture		
2	Milk		
3	Poultry		
4	Pigs		
5	Sheep/goat		
6	Fisheries		
7	Business		
8	Physical Labour		
9	Salaried employee		
10	Repair(Maintenance)		
11	Caste-based occupation		
12	Others		

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A				
B				

8. Family Income and Expenditure

8.1. What is the primary source of income for the household?

Main occupation of the household (Rank in order of importance)	1. Agri labour 2. Sharecropper 3.Sharecropper with agricultural land 4. Govt. employee 5. Pvt. Employee 6. Small-scale Artisan 7. Fisherman 8. Weaver 9. Business (specify) 10. Others (specify)				
	If (9)				
	If (10)				

8.2 Family Expenditure (last one year)

Sl. No.		Expenditure (Rs.)	Sl. No.		Expenditure (Rs.)
1.	Household expenditure, clothes etc.		6.	Telephone	
2.	Education		7.	House repair/construction	
3.	Medical		8.	Payments of loans and interest	
4.	Festivals and social ceremonies		9.	Entertainment (Cinema, Cable etc.)	
5.	Electricity, gas and fuel wood		10.	Marriage and other ceremonies	
			11.	Others (Specify)	

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9. PUBLIC DISTRIBUTION SYSTEM (PDS)

9.1   Do you have BPL/Antyodaya/Annapurna ration card? (Yes-1, No-2)

9.2   If APL, then do you have a ration card? (Yes-1, No-2)

9.3   If yes, then how much do you get per month? (in kgs)

a) Wheat   c) Sugar   e)Others(Specify)

b)Rice   d)Kerosene (in litres)

9.4   What kind of difficulties do you face regarding PDS?

(Insufficient quantity – 1, Poor quality – 2, Dishonesty in measurement – 3,
Irregular supply – 4, Others(specify) – 5, No problem – 6)

9.5   Do you get all kinds of necessary provisions from PDS?
(Yes-1, No-2)

9.6   If no, what are the reasons?

(Lack of money – 1, Inadequate supply – 2, Discrimination by the dealer – 3,
Other reason – 4)

10. Compared to the situation ten years back, is your village:

(Better than before - 1, Same – 2, Worse than before – 3)

Why?

List three most important reasons

(Public irrigation – 1, Private irrigation – 2, Agricultural productivity – 3, Wage
rates – 4, Social conditions – 5, Political conditions – 6, Outside jobs – 7, Access
to drinking water – 8, Access to health facilities – 9, Access to education facilities
– 10, Access to roads – 11, Access to electricity – 12)

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11. Awareness about Government Programmes

Programme	Whether aware (yes-1, no-2)	Whether benefited (yes-1, no-2)	Who helped in getting the benefit @	Did you pay commission (yes-1, no-2)	Of all the programmes listed from a to i which one is the most useful?
a. SGSY/PMGRY/IRDP					
b. NREGS					
c. Indira Awas Yojana					
d. Old Age/Widow Pension					
e. Swajaldhara					
f. Irrigation					
g. ARWSP-Drinking Water					
h. Sarvasikhsa					
i. Specific programmes for minority community (Mukti TSS programme/SSUP)					

Code: @   Pradhan – 1, Gram Panchayat secretary – 2, Block officials – 3, DRDA officials – 4,

NGO/SHG – 5, Own effort – 6, Others(Specify) – 7.

12. List the three important facilties that your village lacks: ☐ ☐ ☐
    (Please rank in order of importance)

    1.Water 2.Education 3.Health 4.Transportation 5.Roads 6.Drainage 7. No problem

13. List three important facilities that you want in your village: ☐ ☐ ☐
    (Please rank in order of importance)

    1.Water   2.Education   3.Health   4.Transportation   5.Roads
        6.Drainage

14. Access to Media and Communication:

(a) Do you read newspaper regularly? (Yes-1, No-2)   ☐

☐

(b) Do you listen to radio regularly? (Yes-1, No-2)

(c) Do you watch television regularly? (Yes-1, No-2)

(d) Do you have telephone at home? (Yes-1, No-2)

(e) Do you have mobile phone? (Yes-1, No-2)

15. Land and Other Assets

15.1 Ownership and Cultivation of Land (in bigha)

Serial No.	Details of Land	Total land	Has irrigation facilities(in bighas)
1.	Own land		████████████
2.	Own cultivated land		
3.	Pond		████████████
4.	Orchard		
5.	Leased in land		
6.	Leased out land		
7.	Mortgaged in land		
8.	Mortgaged out land		

15.2—Value of your own land? (Rs.)

15.3 Livestock

Serial No	Types of Animals	Numbers	Current value in the market (Rs)
1.	Cows and Buffalos		
2.	Draught Animals		
3.	Young Cattle		
4.	Goat		
5.	Sheep		
6.	Cock/Hen/Duck		
7.	Pigs		
8.	Others (Horses etc)		

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15.4 Ownership of Product and Other Assets

Sl. No	Assets (Agricultural)	No.	Current market value(Rs.)	Sl. No.	Assets(Non-agricultural)	No.	Current market value(Rs.)
1.	Agricultural implements			2.	Transport		
1.1	Plough			2.1	Jeep		
1.2	Bullock cart			2.2	Truck		
1.3	Tractor			2.3	Bus		
1.4	Power tiller			2.4	Car		
1.5	Threshing machine			2.5	Motorcycle		
1.6	Pump set			2.6	Scooter/Moped		
1.7				2.7	Cycle		
1.8	Others(specify)			2.8	Other (Specify)		
				4.	Modern Household Assets		

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3.1	Flour/rice mill			4.1	Electric fan		
3.2	Oil crusher machine			4.2	AC/Cooler		
3.3	Sugarcane crusher machine			4.3	Television		
3.4	Handloom			4.4	Refrigerator (fridge)		
3.5	Powerloom			4.5	CD Player		
3.6	Welding machine			4.6	Gas Stove (LPG)		
3.7	Electric and Electronic repair equipments			4.7	Telephone		
3.8	Motor repair equipments			4.8	Mobile phone		
3.9	Sewing machine			4.9	Domestic possessions		
3.10	Others(Specify)			4.10	Other (Specify)		
				5.	Monetary		
				5.1	Money deposited in Bank/Post office	■	
				5.2	Fixed Deposit	■	
				5.3	Shares	■	
				5.4	Gold/Silver Jewellery	■	
				5.5	UTI/Mutual Fund/ ULIP	■	

15.6 Housing Status

Serial No		Code/Value
1.	Own house/rented house (Own-1, IAY/Govt. provided-2, Rented-3)	
	(a) If own house, current value (including land) in Rs.	
	(b)If rented, rent per month? (Rs.)	
2.	Type of own house $	
3.	Number of rooms in the house?	
4.	Details of homestead land*	
5.	Do you have electricity in the house (Yes-1, No-2)	
6.	If no, what are the two main sources of electricity? **	
7.	Source of drinking water ***	

8.	Distant of the source of drinking water(Km)	
9.	Bathroom/Toilet (Inside the house-1, Outside-2)	
10	What type of Bathroom/Toilet? #	
11.	Two main sources of fuel ##	
12.	Do you have drainage system in the house? (Yes-1, No-2)	

Codes: $ Kutcha-1, Kutcha-Pucca-2, Pucca-3, Other-4

*Own-1, Provided by the Govt.-2, Govt. land without parcha-3, Govt. land with parcha-4, Landlord's land-5, Other (Specify)-6

** Oil Lamp-1, Lantern-2, Petromax-3, Other-4

***Own Handpump/tubewell-1, Public handpump/tubewell-2, Tap-3, Own protected dugwell-4 Own unprotected dugwell-5, Public unprotected dugwell-6, Public protected dugwell-7, Public tap-8, Pond, river, stream-9, Other (Specify)-10

Septic tank latrine-1, In the dwelling, water sealed-2, Pit latrine-3, Covered dry latrine-4, Dugwell water-sealed-5, Other (Specify)-7

Wood-1, Coal-2, Kerosene Oil-3, Hay/ Leaves-4, Cow dung cake-5, Agricultural waste-6, Gobor gas -7, Petroleum gas-8, Other (Specify)-9

16. Common Property Resources (CPRs)

Main CPRs	Do you use them? (Yes-1, No-2)	Any encroachment? (Yes-1, No-2)	If yes, by whom?*
Forest			
Village pond			
Ground			
Cattlepen (Cows, buffalo)			
School lawn/building			
Any other govt. building			
Other (Specify)			

* Code: Uppercaste-1, Big landlord-2, Powerful-landed family, every household-4

17. Has your village developed in the last ten years?
(Yes-1, No-2)

	Whether developed? (Yes-1, No-2)	If yes, why? If no, why?
Health		
Education		
Road		
Drainage facilities		
Electricity		
Drinking water facilities		

18. Questions related to Debts:

18.1 Are you presently in debt? (Yes-1, No-2)

If, yes, please answer the following questions:

18.2

Description of loan	Loan 1	Loan 2	Loan 3
1. Year of loan taken			
2. Principal amount			
3. Source of the loan*			
4. Rate of interest(% in annual)			

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5. Conditions of loan**			
6. Reason for loan***			
7. Money /and kind****			

Codes:

*   Govt.-1, Commercial Bank-2, Gramin Bank-3, Co-operative Bank-4, Provident Fund-5, Insurance-6, SHG/NGO-7, Money Lender-8, Master/Land Lord-9, Frends/Relatives-10, Others(Specify)-11.

**   Interest-1, Physical Labour-2, Mortgage of land-3, Mortgage of assets/ornaments-4, Others(Specify)-5.

***   Capital Expenditure-1,
          Purchase of agricultural equipments/land productivity improvement - 2
          Purcahse of land/house-3
          House repairing-4
          Marriage or other social ceremony-5
          Festivals-6
          Educational purpose-7
          Treatment purpose-8
          Repayment of previous loan-9
          Purchase of consumer durables-10
          Purchase of livestocks-11
          Monetary investment -12
        Others Expenditure-13

****   Money-1, Kind-2, Both-3

Investigator's name
_____

Signature and
Date_____

Supervisor's
Name_____

Signature and Date_____