

Findings from the CBMS Pilot Study in Pakistan

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Abstract

The paper presents and discusses the major findings of the pilot survey regarding the implementation of the community-based monitoring system (CBMS) in the nine villages comprising the two union councils in Pakistan. Indicators relating to poverty, such as education, employment, health, security, political participation, nutrition, housing and sanitation are included in the survey. The paper does not just take an overall view of these indicators, rather it looks at sex and intra-union council differences that were found to exist during this study. It also makes recommendations to institutionalize the information-gathering system in a manner that is easy yet useful for policy formulation.

Introduction

Poverty alleviation is the professed goal of most developing countries' governments, with Pakistan being no exception. However, most of these countries lack updated and relevant data needed to gauge the current state and changes in poverty and to design strategies for poverty alleviation. Even in cases where data are available, there is an absence of disaggregated information at the local level to diagnose

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poverty; identify problems and ways to reduce them; monitor the impact of any developmental project being carried out in the community; and aid the policymaking process at all administrative levels.

The community-based monitoring system (CBMS) provides an ideal opportunity to have updated local level information that could be used for effective policymaking. Information that is not only at the lowest level but one that could be disaggregated by age and sex. A systematic consideration and understanding of the differences between the conditions and needs of women and men of different ages in a community are essential for efficient policymaking and implementation, especially those related to poverty alleviation. The way CBMS-Pakistan is designed offers not just local level information but also looks into the sex differences that exist in the different facets of life.¹ All data collected in the CBMS-Pakistan pilot study could therefore be disaggregated by age and sex.

This paper presents the findings from the pilot study. It has the following objectives:

1. To give an account of the information collected from the CBMS pilot study in Pakistan; and
2. To collect and use the CBMS data in the future.

Findings of the CBMS pilot survey

Table 1 presents the list of indicators that were included in the CBMS-Pakistan pilot survey. The indicators are mainly related to the age-sex structure of the population—marital status, education, employment, health, nutrition, security, political participation, and the water and sanitation conditions prevalent in the houses.

It is very difficult to point out any of the above indicators that do not have a gender perspective attached to it as all factors affect

¹ For a detailed account on the implementation and institutionalization of CBMS in Pakistan see the paper presented by the author at the 2004 PEP in Senegal, entitled "Pilot implementation of CBMS in Pakistan".

Table 1. Indicators included in the CBMS pilot study

Indicator	Definition
<p>1. Age and sex composition of the population</p>	
<p>2. Marital status of the population</p>	
<p>3. Education</p>	
<p>i. Enrolment rates</p>	<p>Enrolment rates for the population by age and sex</p>
<p>ii. Type of schools and distance to them</p>	
<p>iii. Vocational training</p>	<p>Kind and duration of vocational/technical training</p>
<p>4. Employment and income</p>	
<p>i. Employment</p>	<p>Number of persons, 15 years and above, working for pay, profit or family gain</p>
<p>ii. Unemployment</p>	<p>Number of persons, 15 years and above, not working but looking for work</p>
<p>iii. Underemployment</p>	<p>Number of employed persons, 15 persons or more, wanting more hours of work</p>
<p>iv. Household budget deficit</p>	<p>Household income and expenditure balance</p>
<p>5. Health</p>	
<p>i. Infant mortality</p>	<p>Number of deaths of children under one year old per 1000 live births</p>
<p>ii. Child mortality</p>	<p>Number of deaths of children 1-5 years old per 1000 live births</p>
<p>iii. General state of health</p>	
<p>iv. Number of births attended by trained professionals</p>	<p>Incidence of illness in the last 12 months and nature of illnesses reported</p>
<p>v. Child immunisation</p>	<p>Coverage of immunisation of children under 5 years of age</p>
<p>vii. Coverage of antenatal care</p>	<p>Receiving medical care during last pregnancy by women</p>
<p>viii. Coverage of post-natal care</p>	<p>Receiving medical check up within 6 weeks of delivery for a woman's last birth</p>
<p>ix. CPR</p>	<p>Proportion of women, aged 15-49 years old, using contraceptives</p>
<p>6. Nutrition</p>	
<p>i. Prevalence of malnutrition</p>	<p>Lack of sufficient food intake, as in less than 3 meals per day per person</p>

Table 1. Cont'd.

Indicator	Definition
7. Security i. Crime incidence ii. Action by law-enforcing authorities	Number of victims of crime by type crime
8. Housing and sanitation i. Type of house ownership owned ii. Type of house construction iii. Percentage of households having access to toilets iv. Percentage of households having access to sewerage facility v. Garbage collection method from households	Ownership differentiated into basically or rented That is material used in house construction Proportion of households getting their waste collected by municipal authority/ local collection system/private system
9. Political participation i. Number of registered voters and those actually voted ii. Presence and participation of/in village organization iii. Accessibility of public representatives	Number of households involved in at least one village organisation Number of times public representatives visited the village and the ease people had in approaching them

the two sexes differently. For example, a marital union has different implications for male and female of similar ages. Since sexual activity, especially for females, start after marriage in Pakistan leading to almost immediate childbearing in most cases, marital union, thus, has a lot more implications for females than for males. Likewise, lack of female participation in paid work makes age-sex structure of a population important in monetary terms. Even absence of a water source within the house has different meanings for the two sexes as it is generally females that have to fetch water in case of non-availability.

As stated earlier, the way CBMS-Pakistan is designed, all data could be disaggregated by age and sex. In this regard, though, this paper focuses only to a few basic examples from the age-sex and marital structure, education, health and employment. Main findings would also be presented about the solid and liquid waste disposal facilities in the study villages.

CBMS-Pakistan was conducted in two union councils (Dhamyal and GB42) of Punjab province consisting of the following villages: Dhamyal, Jorain, Banda Nagial, Hayal, Mohra Chapper, Mohra Bariyan, and Mohra Faqeeran(in Dhamyal Union Council) and GB 285 and GB 286 (in GB42 Union Council).

Age-sex structure

Knowledge of a population's age-sex structure should form the basis of any policy decision. Needs differ by age and sex, thus, knowing the age structure can help make allocations that are responsive to a population's needs. Table 2 shows the age-sex structure of the population included in the CBMS pilot study in Pakistan. It shows the presence of a very young population which is a result of continuing high fertility rates. Less than one third of the population, both male and female, are in the working ages of 15-60 years old.

The population is far from ageing but it is worth noting that males aged 60 years old and over outnumber females in similar ages. Universally, females tend to live longer than males but this trend is not found in the CBMS-Pakistan survey villages.

Instead of grouping all population under 5 years old as children, CBMS Pakistan groups them as infants (that is one year old or less) and children (aged 1-5 years old). Infant mortality rate is high in Pakistan and it makes sense to deal with the group separately. In addition to this, the sex-disaggregated data help to see the difference in the death rates of male and female children in infancy and childhood, and to gauge the impact of the

Table 2. Age distribution by sex (%)

Name of Village	Male (age in years)				Female (age in years)				Total		
	≤1	1-5	5-15	15-60	>60	≤1	1-5	5-15		15-60	>60
Dhamyal	1.2	5.4	13.2	29.9	2.0	1.1	6.2	11.2	27.8	2.0	100.0
Jorian	2.1	4.5	13.6	28.2	2.1	1.3	4.7	10.6	29.3	3.6	100.0
Banda Nagial	2.0	5.4	11.4	29.3	3.1	1.6	4.6	10.9	30.0	1.9	100.0
Hayal	1.3	4.7	12.3	29.3	3.9	1.4	3.8	10.7	30.4	2.1	100.0
Mohra Chappar	1.1	4.1	12.1	29.5	3.2	1.3	3.8	11.9	30.5	2.6	100.0
Mohra Bariyan	2.4	5.5	13.6	25.5	2.0	2.4	5.9	13.8	27.5	1.3	100.0
Mohra Faqeeran	1.3	5.7	13.5	28.6	1.8	2.1	4.4	13.0	28.8	0.7	100.0
Sub total											
UC Dhamyal	1.6	5.1	12.7	28.8	2.7	1.6	4.7	11.7	29.2	1.9	100.0
285 GB	1.9	5.3	13.3	28.9	2.9	1.6	5.4	11.9	26.9	1.9	100.0
286 GB	1.5	6.2	12.9	29.0	3.3	1.2	4.9	11.5	27.0	2.4	100.0
Sub total											
UC GB42	1.7	5.7	13.1	28.9	3.1	1.4	5.2	11.7	26.9	2.2	100.0
Total	1.6	5.4	12.9	28.9	2.9	1.5	5.0	11.7	27.9	2.1	100.0

government-sponsored program about childhood immunization for preventable diseases.

The age structure of the population could be summarized by looking at the dependency ratios. As seen in Table 3, there is a high dependency ratio, especially young dependency ratios in the survey villages.

Linked to age-sex structure is the marital structure of the population, more so for countries like Pakistan where childbearing usually begins after marriage. In this regard, marital status of women in reproductive ages, that is 15-49 years old, which comprise more than one fourth of the total population, become all the more important. CBMS data provide information about the marital status of all population, disaggregated by sex but only the marital status of females in reproductive ages is dealt with here as they have important policy implications.

Table 4 shows that more than half the women in reproductive ages are currently married (53.3%). The presence of such huge proportion of women in reproductive ages who are currently married calls for means of dealing with their special needs regarding childbearing, contraception and other related health issues. As seen later in this paper, women needs regarding antenatal and postnatal care, obstetrics services, and contraception require much attention.

Education

CBMS-Pakistan asked about the educational status of all household members, males and females, aged 5 years and above. Sex-

Table 3. Dependency ratios (%)

Dependency ratios	Dharmyal UC	GB42 UC	Total
Young	64.7	69.3	67.2
Old	7.9	9.4	8.7
Total	72.6	78.7	76.0

Table 4. Marital status of women in reproductive ages (15-49 years old)

Villages	Marital status of women aged 15-49 years (%)							Number
	Never married	Currently married	Nikah without rukhsati	Widow	Divorced	Separated	Total	
Dhamyal	44.2	51.9	0.3	2.4	0.6	0.2	100.0	339
Jorain	40.7	55.9	0.0	2.5	0.8	0.0	100.0	118
Banda Nagial	37.3	56.3	0.4	3.8	0.8	1.5	100.0	263
Hayal	45.6	50.6	0.2	1.5	1.0	1.0	100.0	401
Mohra Chapper	46.0	49.0	1.0	3.0	0.0	1.0	100.0	202
Mohra Bariyan	40.0	55.2	1.3	1.7	1.3	0.4	100.0	252
Mohra Faqeeran	44.8	52.4	0.0	1.6	0.8	0.4	100.0	252
<i>Sub total</i>								
<i>UC Dhamyal</i>	<i>43.5</i>	<i>52.3</i>	<i>0.5</i>	<i>2.3</i>	<i>0.8</i>	<i>0.7</i>	<i>100.0</i>	<i>1805</i>
285GB	42.0	55.0	0.4	1.5	0.8	0.4	100.0	1050
286GB	44.8	52.8	0.1	1.6	0.3	0.4	100.0	1007
<i>Sub total</i>	<i>43.0</i>	<i>54.3</i>	<i>0.2</i>	<i>1.5</i>	<i>0.5</i>	<i>0.4</i>	<i>100.0</i>	<i>2057</i>
<i>UC 42GB</i>								
Total	43.2	53.3	0.3	1.9	0.6	0.6	100.0	3862

disaggregated figures for educational status show, as can be seen in Table 5, that there is an increasing trend of sending girls to school but school enrolment is not universal even now for neither male nor female children.

Despite this increasing trend towards education among girls, one cannot ignore the huge proportion of women who have never been to school. Sending all these illiterate women to school now or making them literate at this stage of their lives would be difficult in most cases but the information could be used to design policies in a way that their lack of literacy does not become a barrier in getting the desired benefits. In this respect, an example could be given of certain public awareness campaigns in media that could not be read/understood by illiterate women. As such, these campaigns need to be carried out in ways comprehensible by these women.

Table 5. Ever attended school by sex

Age groups	Male				Female			
	Status of attending school (%)				Status of attending school (%)			
	Never	In past	Currently	Number	Never	In past	Currently	Number
Dhalyal UC								
5-9	10.8	3.4	85.8	493	13.0	1.1	85.9	446
10-20	8.5	31.2	60.2	890	10.8	30.0	59.2	878
21-30	13.8	81.3	4.9	669	32.5	63.3	4.2	662
31-40	22.6	77.4	0.0	368	56.3	43.4	0.3	389
41-50	24.7	75.3	0.0	288	70.7	29.3	0.0	294
51-60	31.6	68.4	0.0	212	85.9	14.1	0.0	170
60+	57.9	42.1	0.0	183	92.1	7.9	0.0	126
Total	17.7	50.3	32.1	3103	35.6	32.9	31.4	2965
GB42 UC								
5-9	17.4	1.2	81.5	680	17.4	1.0	81.6	615
10-20	13.2	35.0	51.8	1149	18.6	37.1	44.3	1091
21-30	14.0	81.7	4.2	826	31.9	65.4	2.7	703
31-40	24.4	74.5	1.2	509	59.6	40.5	0.0	438
41-50	26.6	73.4	0.0	335	77.1	22.9	0.0	327
51-60	33.9	66.1	0.0	283	85.8	14.2	0.0	254
60+	51.3	48.7	0.0	273	95.0	5.0	0.0	180
Total	20.6	49.9	29.5	4055	39.8	32.3	27.9	3608
Total								
5-9	14.6	2.1	83.3	1173	15.6	1.0	83.4	1061
10-20	11.2	33.3	55.5	2039	15.1	33.9	50.9	1969
21-30	13.9	81.5	4.5	1495	32.2	64.4	3.4	1365
31-40	23.6	75.7	0.7	877	58.0	42.0	0.0	827
41-50	25.7	74.3	0.0	623	74.1	26.0	0.0	621
51-60	32.9	67.1	0.0	495	85.8	14.2	0.0	424
60+	53.9	46.1	0.0	4566	93.8	6.2	0.0	306
Total	19.3	50.1	30.6	7158	37.9	32.8	29.3	6573

Apart from formal education, vocational training can have important repercussions for the employment prospects of an individual. In the CBMS survey, the rate of receiving vocational training, be it formal or informal, was very low, with 80-95 percent of the males and females in both union councils never receiving any vocational training. However, what is worth noting is the difference between the types of trainings received by males and females. Females usually receive training for skills that are considered “feminine” and in most cases, less rewarding monetarily, as can be seen in Table 6.

Table 6. Types of vocational training received

	Nature of training received by (%):					
	Male			Female		
	Dhamyal UC	GB42 UC	Total	Dhamyal UC	GB42 UC	Total
Wood work	5.7	2.9	4.3	0.7	0.9	0.7
Embroidery/knitting	0.0	0.0	0.0	57.9	37.7	53.9
Weaving	0.4	2.4	1.4	7.9	10.5	8.5
Livestock and poultry breeding	4.4	0.2	2.4	7.7	0.0	6.2
Typing and shorthand	0.2	0.2	0.2	0.4	0.0	0.3
Driving	19.4	15.3	17.5	0.7	0.0	0.5
Computer	3.9	2.0	3.0	4.8	0.9	4.0
Nursing	0.2	0.2	0.2	0.2	0.0	0.2
Cooking	0.9	1.2	1.1	0.0	0.0	0.0
Garment making	2.9	4.3	3.6	5.3	36.8	11.6
Plumbing and pipe fitting	6.1	8.4	7.1	0.0	0.0	0.0
Carpentry	5.1	1.2	3.3	0.0	0.0	0.0
Auto mechanic	3.9	2.0	3.0	0.0	0.0	0.0
Electrician	8.4	6.8	7.7	0.0	0.0	0.0
Mechanical engineering	5.1	1.4	3.4	0.0	0.0	0.0
Midwifery	0.0	0.0	0.0	1.5	2.6	1.8
LHV	0.0	0.0	0.0	3.5	2.6	3.3
Polishing and soldering	1.1	0.0	0.6	0.2	0.0	0.1
Mason	18.3	5.5	12.3	0.0	0.0	0.0
Other	14.0	36.0	28.9	9.2	8.0	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
(Number)	(545)	(490)	(1035)	(454)	(114)	(568)

Employment

If there is anything that reflects gender differences to the extreme in Pakistan, it is the employment status of the population. In the CBMS pilot study, vast differences were found between the employment status of males and females. As Table 7 shows, labor participation rate is low among females in all villages included in the CBMS-Pakistan survey. They not only have low working rates for monetary gains but majority of females do not also want to work either.

Sex differences do not stop here. Working females usually work in professions that are less paying or are low prestige jobs. A large proportion of females work as domestic servants or as teachers, with the former being a low prestige job while the latter less-paying. These differences are best reflected in the remunerations of the working males and females. Table 8 presents the annual mean and median income for working males and females in the nine villages included in the survey. Working females have a mean annual income that is approximately four times less than the working males. If one compares the median value, which is a better indicator of the situation, the comparison worsens even more with working females earning 6-10 times less than their male counterparts in GB42 and Dhamyal UC, respectively.

It would be of interest, especially in the context of gender, to look at the respective reasons given by males and females for not being a part of the labor force. Table 9 gives the reasons that were reported by anyone aged 5 years old and above for not working. It also helps to see the possible steps that could be taken to encourage (like females in working ages) or discourage (like under-aged population) people to work. For the younger age groups, 5-9 and 10-20 years old, studying is the main cause for not wanting to work for both sexes. While studying remains a major reason for males aged 21-30 years old for not wanting to work, for females in the same age group, the proportion drops dramatically in both union councils. From ages 21-30 years old and onwards, housekeeping keeps females out of the labor force.

Table 7. Work status of population aged five years old and over

	Male				Female			
	Work status (%)			Number	Work status (%)			Number
Villages	Working	Not wanting to Work	Looking for Work		Working	Not wanting to Work	Looking for Work	
Dhamyal	45.6	48.3	6.1	625	8.8	86.7	4.4	565
Jorain	46.2	50.0	3.8	186	5.7	93.8	0.5	210
Banda Nagial	55.8	37.9	6.3	443	4.0	86.9	9.1	428
Hayal	46.4	49.6	4.1	688	6.6	89.4	3.9	635
Mohra Chapper	47.7	51.4	0.9	331	8.5	87.5	4.1	319
Mohra Bariyan	48.8	48.8	2.3	391	5.5	90.8	3.7	401
Mohra Faqeeran	49.2	47.9	2.9	447	2.1	94.0	3.8	420
<i>Sub total</i> <i>Dhamyal UC</i>	<i>48.4</i>	<i>47.5</i>	<i>4.1</i>	<i>3111</i>	<i>6.0</i>	<i>89.5</i>	<i>4.5</i>	<i>2978</i>
285 GB	52.2	43.9	3.9	2072	5.0	94.3	0.7	1850
286GB	52.1	44.8	3.1	1980	6.9	93.0	0.1	1751
<i>Sub total</i> <i>42GB</i>	<i>52.2</i>	<i>44.3</i>	<i>3.5</i>	<i>4052</i>	<i>5.9</i>	<i>93.7</i>	<i>0.4</i>	<i>3601</i>
Total	50.5	45.7	3.7	7163	5.9	91.8	2.3	6579

Health

Males and females show different trends in morbidity rates. As seen in Table 10, the rate remains high for females in all ages from 20 years old and above. For males, the morbidity rates remain lower than their female counterparts for all ages and show a consistent increasing trend with increasing age after year 20.

It would not be far fetched to link the female morbidity rates for ages 20 years old and above with their role associated with childbearing. Frequent childbearing, coupled with the lack of antenatal and postnatal cares has the potential to put women's health at risk in the CBMS survey villages, as in the rest of Pakistan. As shown in Table 11, the rate of receiving antenatal care is far from universal in

Table 8. Annual mean and median income of working males and females (in Pakistani rupees)

	Male			Female		
	Mean income	Median income	Number	Mean income	Median income	Number income
Dhamyal	69943	60000	285	23942	7600	50
Jorain	61026	54000	86	3642	3000	12
Banda Nagial	54207	42000	247	4938	2400	17
Hayal	55515	48000	319	6862	2100	42
Mohra Chapper	61509	60000	158	22961	7200	27
Mohra Bariyan	56272	48000	191	12077	8400	22
Mohra Faqeeran	79667	60000	220	14277	5000	9
<i>Sub total</i>						
<i>Dhamyal UC</i>	<i>62599</i>	<i>50000</i>	<i>1506</i>	<i>14677</i>	<i>5200</i>	<i>179</i>
285 GB	42944	30000	1082	10337	5400	92
286GB	44991	36000	1032	13055	5400	120
<i>Sub total</i>						
<i>GB42 UC</i>	<i>43943</i>	<i>32000</i>	<i>2114</i>	<i>11876</i>	<i>5400</i>	<i>212</i>
Total	51704	36000	3620	13158	5400	391

the survey villages. The situation is worse for postnatal care where, even at best, hardly one fourth of the women receive care in the months following the delivery. It is thus not surprising to find more women than men complaining of health problems while they are in the reproductive ages. The situation is worsened by a big majority of deliveries taking place at home which is unequipped to tackle any emergency situation in case of need.

Nature of illness reported by males and females

It would be of interest to see the nature of health problems reported by males and females in the CBMS survey. As seen in Table 12, fever was the most reported illness in both union councils for both males and females. Other health problems that were reported by substantial proportions of the male and female population include diabetes, cough, flu, arthritis, heart diseases and kidney problem. A few health problems

Table 9. Reasons for non-availability for work by age and sex

Reasons	Male						Female							
	5-9	10-20	21-30	31-40	41-50	51-60	60+	5-9	10-20	21-30	31-40	41-50	51-60	60+
	Dharmyal UC													
Illness	0.2	0.8	5.4	27.8	22.7	12.1	8.0	0.0	1.4	0.8	2.6	7.1	9.1	6.0
Apprentice	1.0	5.1	16.1	22.2	0.0	0.0	0.0	0.2	6.0	5.3	0.6	0.4	0.6	0.0
Studying	75.6	81.2	51.8	16.7	0.0	0.0	0.0	74.6	60.0	6.7	0.0	0.0	0.0	0.0
Housekeeping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	19.6	79.0	92.7	75.9	55.8	19.8
Retired	0.0	0.0	0.0	0.0	50.0	48.3	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Landlord	0.2	1.1	13.4	11.1	4.5	0.0	0.8	0.0	0.1	0.4	0.0	0.8	0.0	0.9
Too young to work	19.0	5.1	0.0	0.0	0.0	0.0	0.0	20.9	9.6	3.6	0.0	0.0	0.0	0.0
Too old to work	0.0	0.0	0.0	0.0	9.1	31.0	65.6	0.0	0.0	0.0	1.5	9.1	30.5	64.7
Handicapped	1.3	0.8	4.5	16.7	4.5	1.7	3.2	2.7	2.7	2.5	2.3	5.4	0.6	4.3
Others	2.8	6.0	8.1	5.6	9.0	10.3	1.6	0.7	1.2	1.7	0.9	0.8	3.1	3.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(N)	(480)	(649)	(112)	(18)	(22)	(58)	(125)	(437)	(800)	(525)	(343)	(241)	(154)	(116)
	GB42 UC													
Illness	1.2	0.4	6.0	20.0	30.6	25.8	18.5	0.3	0.2	0.9	2.1	3.4	2.5	0.0
Apprentice	0.6	4.6	12.8	8.0	0.0	0.0	0.0	0.8	0.3	0.0	0.3	0.0	0.0	0.0
Studying	79.9	84.3	61.5	24.0	0.0	0.0	0.0	78.5	50.1	4.8	0.5	0.0	0.0	0.0
Housekeeping	0.0	0.0	0.0	0.0	8.3	8.1	0.0	5.3	47.7	92.4	96.1	89.6	68.9	35.6
Retired	0.0	0.0	0.0	18.0	22.2	19.4	11.3	0.0	0.0	0.0	0.0	0.0	0.4	0.6
Landlord	0.0	0.3	1.7	8.0	2.8	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Too young to work	14.5	3.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0
Too old to work	0.0	0.0	0.0	0.0	11.1	40.7	69.0	0.0	0.0	0.0	0.0	6.0	27.7	62.6
Handicapped	0.3	1.0	6.8	8.0	11.1	6.5	2.1	0.0	0.3	0.2	0.0	0.3	0.0	1.1
Others	3.5	6.2	8.6	14.0	13.3	0.0	0.0	1.0	1.4	1.7	1.2	0.0	0.4	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(N)	(661)	(725)	(117)	(25)	(36)	(62)	(151)	(601)	(1013)	(645)	(381)	(297)	(238)	(174)

Table 10. Incidence of morbidity by sex

Age (in years)	Males (%)		Females (%)	
	Yes	No	Yes	No
<10	14.2	85.89	10.9	89.1
10-20	5.8	4.28	14.5	85.5
20-30	11.4	8.68	22.2	77.8
30-40	14.6	5.47	37.5	62.5
40-50	20.9	9.16	56.0	44.0
50-60	34.3	5.74	64.5	35.5
>60	55.41	4.68	66.1	33.9
Total	5.7	4.3	26.3	73.7
GB 42 Union Council				
<10	25.1	74.9	24.7	75.3
10-20	19.1	80.9	17.7	82.3
20-30	25.5	74.5	30.1	69.9
30-40	32.4	67.6	43.0	57.0
40-50	45.6	54.4	55.4	44.6
50-60	54.1	45.9	58.4	41.6
>60	66.2	33.8	64.7	35.3
Total	31.8	68.2	31.8	68.2
Total				
<10	23.7	76.3	19.1	80.9
10-20	13.3	86.7	16.3	83.7
20-30	19.3	80.7	26.5	73.5
30-40	25.0	75.0	40.5	59.5
40-50	34.5	65.5	55.7	44.3
50-60	45.6	54.4	60.8	39.2
>60	61.9	38.1	65.3	34.7
Total	24.9	75.1	29.4	70.6

Table 11. Proportion of women who had given birth in 5 years preceding the survey and had received antenatal and postnatal care

	Antenatal care			Post natal care			Number
	Yes	No	Total	Yes	No	Total	
Dharmyal UC	62.6	37.4	100.0	25.8	74.2	100.0	532
GB42 UC	54.7	45.3	100.0	10.2	89.8	100.0	664
Total	58.2	41.8	100.0	17.2	82.8	100.0	1196

Sanitation

Unhygienic conditions can be a source of disease and lack of proper garbage disposal facility can be a major reason for this. Table 13 presents garbage collection methods in houses in the nine villages of the two survey union councils. It is disturbing to see that no formal system of garbage collection is present in 95.1 percent of houses in Dharmyal Union Council and in 99 percent of houses in GB42 Union Council. A few houses have a private garbage collection system in both union councils (3.2% in Dharmyal and 1% in GB42) but it is not a substantial proportion to make any positive impact. Only a small proportion of households in Mohra Faqeeran (1.3%) report the availability of a garbage collection system managed by the *tehsil* administration.

Table 13. Solid waste collection method

Village	Method of garbage collection (%)					Number
	Tehsil administration	Local collective system	Private arrangement	No formal system	Total	
Dharmyal	0.0	0.0	1.9	98.1	100.0	206
Jorain	0.0	10.1	2.9	87.0	100.0	69
Banda Nagial	0.0	0.7	0.0	99.3	100.0	149
Hayal	0.0	2.6	0.9	96.5	100.0	228
Mohra Chapper	0.0	0.0	9.3	90.7	100.0	108
Mohra Bariyan	0.0	0.7	6.6	92.7	100.0	137
Mohra Faqeeran	1.3	0.0	4.6	94.1	100.0	152
Sub total						
Dharmyal UC	0.2	1.4	3.2	95.1	100.0	1049
285 GB	0.0	0.0	0.8	99.2	100.0	651
286GB	0.0	0.0	1.2	98.8	100.0	605
Sub total						
GB42 UC	0.0	0.0	1.0	99.0	100.0	1256
Total	0.1	0.7	2.0	97.3	100.0	2305

Table 14 shows that majority of houses rely on open drains for disposing liquid waste in both union councils, although the proportion is somewhat lower in Dhamyal Union Council (63.8%) as compared to GB42 Union Council (81.7%). Intra-union council differences are also evident with Banda Nagial being worst off, having almost all the houses either without any drainage system (47.7%) or connected just to an open drain (49%). Mohra Bariyan in Dhamyal Union Council and 286GB in GB42 Union Council have the highest proportion of houses connected to underground sewers.

Issues confronting the study villages

The above findings of the CBMS pilot study in Pakistan shows that:

- A young population age structure characterizes the rural population, with a huge dependency ratio.

Table 14. Type of sanitation system for liquid waste

Village	Sanitation system for liquid waste (%)					Number
	Underground sewerage	Underground drains	Open drains	No system	Ttotal	
Dhamyal	4.4	3.4	75.2	17.0	100.0	206
Jorain	4.3	24.6	52.2	18.8	100.0	69
Banda Nagial	0.0	3.4	49.0	47.7	100.0	149
Hayal	4.8	3.5	68.4	23.2	100.0	228
Mohra Chapper	6.5	4.6	75.0	13.9	100.0	108
Mohra Bariyan	15.3	7.3	55.5	21.9	100.0	137
Mohra Faqeeran	9.9	0.0	60.5	29.6	100.0	152
<i>Sub total</i>						
<i>Dhamyal UC</i>	<i>6.3</i>	<i>5.0</i>	<i>63.8</i>	<i>25.0</i>	<i>100.0</i>	<i>1049</i>
285 GB	1.7	2.6	90.5	5.2	100.0	651
286GB	18.2	2.5	72.2	7.1	100.0	605
<i>Sub total</i>						
<i>42GB</i>	<i>9.6</i>	<i>2.5</i>	<i>81.7</i>	<i>6.1</i>	<i>100.0</i>	<i>1256</i>
Total	8.1	3.6	73.5	14.7	100.0	2305

- Sex ratio in villages is tilted towards males.
- Females in reproductive ages comprise almost one fourth of the total population in the survey villages, more than half of whom are currently married, having important implications for reproductive health services.
- Males are more likely to have been to school than females but the situation is improving for females with an increasing trend of those going to school.
- Receiving vocational training is not very common in the survey villages but males are more likely to receive a vocational training than females.
- Nature of the vocational training varies with sex, with females more likely to learn skills that are considered “feminine” and could be carried out indoors.
- Female labor force participation rate is very low, with majority of those not working having no desire to work for money either.
- Ages 31-40 years old is the peak working phase in the lives of males.
- Housekeeping is the main reason reported by females for not working for economic gains.
- Working males are likely to get 6-10 times more money than working females.
- Morbidity rate among males is high for those under 10 years age group, declining for the 10-30 years age group to increase again for the older ages. Females show no regular trend with regard to morbidity rate.
- Sex differences are found in the type of illnesses reported.
- Just a little over half of the women get antenatal care during pregnancy, and even fewer receive post-natal care.
- A system for garbage collection is almost non-existent in the survey villages.
- A substantial proportion does not have any hygienic way of disposing liquid waste in their houses, with open drains being the major source of disposal.

As seen from the discussions above, differences are not only found between the two union councils but also within the union councils. However, when the respondents were to report the main problems they thought are confronting them, there emerged a trend in the reported main issues in the two union councils. In Dhamyal union council, these are: (1) potable water; (2) electricity; (3) better education institutions; and (4) employment opportunities. In GB42 union council, meanwhile, these are: (1) sanitation and sewerage; (2) electricity; (3) transport; and (4) employment opportunities.

Economic profile of the poorest of the poor households in the two union councils

The economic profile of the ten poorest households in each of the two union councils shows that, as expected, the poor are poorer in GB42 Union Council than in Dhamyal union council (Table 15). The less than half mean/median income of GB42 union council as compared to otherwise low income levels of Dhamyal union council presents this difference. Poor households in both union councils have a deficit budget but the deficit is larger in GB42 union council. As would be expected in poor households, a major portion of the budget goes to food expenditures, and the proportion of such expenditure is higher in GB42 than in Dhamyal union council.

The working to non-working household member ratio is also better in Dhamyal union council, as seen also in Table 15. The same table also shows a low female participation in income-generating activities. The median figures present an even bleaker picture of the poorest households in the two union councils. The best summary indicator, however, in this regard is the income per household member per day in the survey households. The mean and median income per person per day for the poorest in Dhamyal union council are 9.39 and 9.18 rupees, respectively (compared to the total union council mean and median of 110.33 and 88.83 rupees, respectively). The poorest in GB42, meanwhile, get a mean and median income per person per day of a paltry 3.33 and 2.63 rupees, respectively

Table 15. Profile of the ten poorest households in each of the two union councils

Household characteristics	Dhamyal UC		GB42 UC	
	Mean	Median	Mean	Median
Total members	6.00	5.00	6.60	6.50
Females members	3.20	2.00	3.60	3.50
Male members	2.80	3.00	3.00	2.50
Total working members	1.50	1.00	1.00	1.00
Working males	0.90	1.00	0.60	1.00
Working females	0.60	0.00	0.40	0.00
Total Income per month (Rs)	1396.00	1108.33	617.00	458.3
Expenditure on food (Rs.)	2950.00	3000.00	2350.00	3200.00
Expenditure on non-food (Rs)	2055.56	2000.00	1860.00	1250.00
Total expenditure (Rs.)	4800.00	4000.00	4210.00	3250.00
Budget deficit/surplus (Rs.)	-3403.33	-2516.67	-3592.50	-2937.50
Income per household member per day (Rs.)	9.39	9.18	3.33	2.63

(compared to the total union council mean and median of 84.25 and 62.40 rupees, respectively).

Collection and use of data in the future

The pilot phase of the CBMS survey in Pakistan was managed by the team from the Pakistan Institute of Development Economics (PIDE), Islamabad but the plan is to shift the survey design, with modifications, to the local governments. Pakistan has been going through a transitional phase of decentralization since 2000 when the Devolution Plan was outlined and then implemented in the 2001 Local Government Ordinances.

Under the old system of government, the provinces administered the districts and tehsils directly through the bureaucracy at the division, district and tehsil levels. The Devolution Plan and Local Government Ordinances proposed to introduce wholesale transformation in Pakistan's system of government, especially at the local level.

Divisions were abolished and replaced instead by a three-tier local government structure comprising of three categories of local government, namely, districts, tehsils and unions. Elected Nazims and Naib Nazims head each union, tehsil and district local government. There are political linkages between the three tiers. These elected bodies ensure that planning and development is carried out in accordance with local needs. They also monitor the functioning of local administrations.

Devolution in Pakistan follows the principle of subsidiarity whereby all functions that can be effectively performed at the local level are transferred to that level. This has meant decentralization to the districts and tehsils of many functions previously handled by the provincial governments. Alongside administrative and political decentralization, provisions have also been made for the transfer of funds to the local governments so that they can carry out their planning and development functions effectively.

Fiscal decentralization is the heart of any devolution exercise and under the Devolution Plan in Pakistan, budget allocations are the responsibility of district, tehsil and union council administrations. This new set up requires the formation of neighborhood/village councils in urban and rural areas as well. Among the many functions of the union council administration, the important ones are as follows (NRB, 2004):

- To consolidate village and neighborhood development needs and prioritize them into union-wide development proposals and make recommendations to the district government or tehsil municipal administration;
- To identify deficiencies in the delivery of services and make recommendations for the improvement thereof to the tehsil municipal administration;
- To register births, deaths and marriages, and issue certificates;
- To disseminate information on matters of public interest;
- To provide and maintain public sources of drinking water, including wells, water pumps, tanks, ponds and other works

- for the supply of water;
- To regulate grazing lands;
- To cooperate with the public, private or voluntary organizations engaged in activities similar to those of the union;
- To assist the village/neighborhood councils in the union to execute development projects; and
- To collect and maintain statistical information for socioeconomic indicators.

Under this plan, the village/neighborhood councils are to assist the union council administration in carrying out these functions, along with taking steps to improve the security of the population and organizing sports, cultural and recreational activities. Collecting socio-economic data and selecting sites for the provision of municipal services, in cooperation with the union council administration, entails an important function of the village/neighborhood councils.

To compile and consolidate the data collected by the union council and the village/neighbourhood councils, the National Reconstruction Bureau (NRB) has developed the National Reconstruction Information Management System (NARIMS). The primary focus of the NARIMS is to store, transform and display spatial data for: financial management, planning and development purposes, evaluation of existing schemes, and performance incentives.

The CBMS fully complements the devolution plan, as envisaged in the Local Government Ordinance, by decentralizing the information collecting procedure and by evolving a community-based monitoring system. The CBMS and the indicators found relevant in it, after the pilot phase, have been proposed to be incorporated in the information that is to be collected by the union councils and village/neighborhood councils. This will make the whole exercise more beneficial for needs assessment, planning, monitoring and evaluation of poverty reduction projects.

The prescribed role of local governments already includes collection of socio-economic data at the lowest level, and CBMS can help formulate a more comprehensive and meaningful list of indicators to be included in the data to be collected. Thus, by incorporating the indicators considered important in the CBMS survey to the list of indicators formulated by the NRB for collection at the local level, the first step towards making efficient fiscal decisions can be taken.

The provincial government intimates the total budget available to the local government, i.e., development and non-development. The district governments distribute these funds to the tehsils and unions. To carry out the exercise of fund distribution, the tehsil and the union administrations provide estimates of their revenues and expenditures to the district governments. Based on these estimates, the district government determines the total share of each tehsil/union.

Once the share is intimated, the tehsil and union administrations develop their own budgets for development and non-development. The development budget amount is usually the amount left over after budgeting for the recurring costs and liabilities. This is where the data generated through CBMS can be of specific use.

Finally, the CBMS-Pakistan data can help gather and provide information at the local level, which is the union council level in the present context, and identify areas needing attention, and thus help in making policies that are relevant to the local population.

Comments

- The paper provides some interesting information on socio economic characteristics of some villages and two union councils in Pakistan.
- This paper shows the importance of CBMS as a tool for gathering and reporting disaggregate data at the lowest administrative level and the value of disaggregating information on the basis of age and gender.
- It would be better if the author describes how CBMS was applied for the particular area. Because CBMS is applied in different countries and different localities in different ways, the CBMS process is by itself also important especially when dealing with more disaggregated levels. In addition, it would be useful if the author describes the issues related to the training of enumerators and so on.
- Moreover, contextualizing data in terms of rural economy is important. It is important to give reasons as to what the data are actually telling in terms of poverty and how development planners will use the data. For example, reasons for why there are many school leavers, why women do not want to work, why people move into certain job markets and reasons for more boys working in one council than the other, etc., are all important.
- With respect to the age distribution categories given the prevalence of working children in Pakistan, it would be useful to have information further disaggregated like in the 10-15 age brackets, for instance. In addition, it is important to put down the sources in the tables to show where the data come from.
- It is very good that the National Reconstruction Bureau as well as the local council was advised and involved in certain ways.

But more information is needed on how this CBMS process is linked to the government process of data collection or whether such is not linked at all.

- Provide information on the lessons learned on the need for training and capacity development among citizens at union councils and district level to carry out this work at the technical level.
- Relational issues of how implementers link the government and members in the society and ways in which those relationships along with gathering of information can contribute to a changed process in the society should be presented as well.
- With reference to gender differences—the issue of compulsion under which women live is really very strong. That probably comes to bear in issues of who responds to whom when asking questions. The suggestion is to look into some of the values-based behaviour that affects women's role in the society.
- Provide details as to why the median income of women is drastically different from the mean income of women.
- Provide information on what will be the next step in terms of implementation.
- The indicators of this study are much more comprehensive than the standard CBMS. This richness of data is good on one hand but the question is how feasible is it to implement this at the local level and to narrow it down to more manageable data collection.
- Provide information on whether the union council members are involved or not in the design of the instruments and the whole process.
- A question was raised regarding the indicator for malnutrition, i.e., eating 3 times/day. Provide information whether this is for everyone or is the paper looking only at child malnutrition.
- It was also commented on that the antenatal care for 5 years may be difficult to analyze because of the recall bias since 5 years is a long time.

- It was suggested to conduct a statistical test and come up with results rather than comparing wrong numbers.
- Provide information on whether it is possible that by just looking at frequency tables of the situation, policy decisions can be made and how can the data be used to make decisions.
- Provide information on whether this study links union council data to the district level monitoring system that NRB has.
- Since there is a big difference between the incomes of men and women, provide information on whether there is some discrimination in the labor market against women, which may be the reason why women do not want to work.
- Provide information on access to information by people in that area – do people have access to television and radio?
- Initially, the CBMS idea was more of the process and how the message is delivered in the district. But upon observation, most of the CBMS studies are paying more attention to the resources without emphasizing the procedure. This, therefore, becomes a challenge to the CBMS.