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# An Analysis of Poverty at the Local Level

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# I. INTRODUCTION

Poverty is a situation of deprivation, failure to fulfill the minimum basic physical and psychological needs of an individual due to unavailability of sufficient economic resources at its disposal. It is associated to insufficient outcomes with respect to nutrition, health and education, to deficient social relations, to insecurity and to low self-esteem and powerlessness. So poverty can be analysed from monetary and non-monetary indicators of well-being.

In Pakistan Poverty have manifold expressions, many dimensions and indeed, many root causes. Given such multidimensionality, it is not difficult to see why poverty cannot be reduced or summarily expressed, in terms of a single quantitative or qualitative indicator alone. Similarly, for alleviating poverty, all routes matter, recognising the heterogeneity of the voices and the perspectives of the poor expressed in economic and non-economic terms. Such a multidimensional approach, moreover, brings into forefront the importance of recognising the causal factors of poverty at the local level and addressing area-specific problems based on perceived needs and demands of the poor. An essential pre-requisite of institutionalising the approach, however, is the existence of decentralised and participatory structure of local governance that can introduce participatory development in which citizen at the grass-root are involved in planning, formulating and implementation of programs for themselves. In Pakistan, a local government system has been installed in the form of "Devolution Plan 2000" after the promulgation of Local Government Ordinance 2001 by all Provinces. The new system comprises a District Government and Zila Council in a district, Tehsil Municipal Administration and Tehsil Council in a Tehsil and a Union Administration and Union Council in a union. Union Council is at the lowest tier of Local Government System. The main objective of union council is to develop and improve water supply sources, make arrangements for sanitation and

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solid waste management, augmenting human capital endowments through improved access to education and health services and movement towards pro-poor governance and promote participation of the people [Anjum (2001)]. This requires a comprehensive local level poverty monitoring system capable of providing the necessary information for use in local level planning and development. In Pakistan poverty indicators have regularly been monitored through Pakistan Integrated Household Survey (PIHS) conducted by Federal Bureau Statistics. However, these statistics do not capture the human tragedy taking place in lower administrative units such as district, *tehsil* and union council. With the new local government system, which necessitates the participation of representatives at all levels in designing and approving local development plans, the need for data at these levels has become absolutely essential. To get necessary information at the local level, the Community Based Monitoring System (CBMS) in Pakistan has implemented a project by the Pakistan Institute of Development Economics by doing a census in two union councils of rural Punjab, one in district Rawalpindi (Dhamyal union council) and the other in district Toba Takh Singh (GB42 union council). The activities of the project are design of core set of CBMS indicators that can be used for the design, monitoring and evaluating of development programs/polices. This will also facilities faster and sustained reduction in poverty and helps us to attain the Millennium Development Goals of halving extreme poverty incidence by 2015.

Thus, the Community Based Monitoring System (CBMS) is a useful source of data, particularly at the lower administrative levels. The CBMS Network is part of the Poverty and Economic Policy (PEP) research network of International Development Research Centre (IDRC), Canada. The network aims to provide a reliable and credible information base for policymaking, program design and impactmonitoring through the development and institutionalisation of a community-based monitoring system.

The primary objective of the study is to find the magnitude of poverty in the union council of *Dhamyal*, in order to acquire a deeper understanding of how to over come it. Inequality is also calculated, as it is a broader concept in that it is defined over the entire population, and not just for the population below a certain poverty line. The present analyses will also highlight various economic and social dimensions of poverty at the lowest administrative level that is union council. The findings of poverty and inequality will be useful in local level planning and development that will also facilitates the creation of macro-micro linkages in poverty reduction and development agenda. The analyses will also provide the concerned authorities with a suitable empirical base for conducting budget allocation exercise.

The study is organised as follows: Section II discusses data and methodological issues. The results are discussed in Section III. Conclusions and policy implications are discussed in Section IV.

### **II. DATA AND METHODOLOGY**

The present analysis is based on censes for the pilot study of CBMS in Pakistan which provides information at the lower administrative units such as union council for the year 2004. The pilot survey was carried out in rural areas of district Rawalpindi and Toba Tekh Singh which provides information on demographic characteristics; health, education, nutrition, security, housing and sanitation and political participation of the community [Nayyab (2004)]. According to multiple deprivation index, based on the combined education, health, housing quality, housing services and employment at sectoral level, rural deprivation rank order of district Rawalpindi stands at 9 and district Toba Tekh Singh at 5 out of 34 districts of rural Punjab [Jamal, et al. (2003)]. For poverty analysis, one union council from each district was nominated by the district Nazim, i.e union council and GB42 union council. To analyse poverty and inequality at the local administrative level, *Dhamyal* Union council from district Rawalpindi is selected as it is more deprived as compared to district Toba Tekh Singh in rural Punjab.

The sampled union council profile shows that all seven villages were deprived of most civic amenities. While five out of seven villages have at least one primary school but majority of the schools had absentee teaching staff. Dhamyal village has functional secondary schools. The health facility is no better than education, with no government hospital or clinic, no family planning center, very few private clinic or pharmacists. In the jurisdiction of union council, there is no village council, no police station, post office, bank, credit facility, public transport and daily market. Although electricity and telephone facility is available but gas facility is partially available in few villages. Very low access to water and sanitation facilitations are in the community. The worst problem reported in the community was acute water shortage. Finally, there is no adequate formal system of garbage collection by the local administration.

The Table 1 gives the information about the number of interviews conducted completely across the seven villages of sampled union council.

| Distribution of Households Interviewed in the Union Council |                   |            |  |  |
|---|-------------------|------------|--|--|
| Villages in UC  | No. of Households | Percentage |  |  |
| Dhamyal   | 195               | 19.5       |  |  |
| Jorian  | 64                | 6.4        |  |  |
| Banda Nagal   | 138               | 13.8       |  |  |
| Hayal   | 215               | 21.5       |  |  |
| Mohra Chapper   | 105               | 10.5       |  |  |
| Mohra Bariyan   | 134               | 13.4       |  |  |
| Mohra Faqeeran  | 150               | 15.0       |  |  |
| Total UC  | 1001              | 100        |  |  |

Table 1

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

### **III. METHODOLOGY**

Poverty analysis involves three choices: choice of a suitable welfare indicator, choice of a poverty line and choice of a poverty measure. In the present study, consumption expenditure is used as welfare indicator. Official poverty line of Rs 748.56 per adult equivalent per month at the prices of 2000-01 is taken, after taking into consideration the inflationary changes at the prices of 2004 [Pakistan (2004)].

A good summary index of poverty measure should possess three properties as described by Sen (1976). One, the index must be sensitive to the relative number of poor, capturing the incidence of poverty. Two, the index must be sensitive to the average level of income of the poor, indicating their average deprivation. Three, the index must be sensitive to the distribution of income among the poor, indicating their degree of relative deprivation. The Fosterer, Greer and Thorbecke (1984) poverty measure possesses all these three properties. This measure,  $P_{(\alpha)}$  may be defined:

$$P_{(\alpha)} = \frac{1}{n} \sum_{i=1}^{q} [(Z - Y_{ii}) / Z]^{\alpha}$$

Where *Z* is the poverty line,  $Y_{it}$  is the household per capita consumption expenditure of individual *i* in period *t*. *q* is the number of poor households ( $Y_{it} < Z$ ), and *n* is the total number of households.  $\alpha$  is a parameter which takes on a value greater than or equal to zero ( $\alpha \ge 0$ ). As  $\alpha$  gets larger, the measure becomes more sensitive to the income circumstances of the "poorest poor". If  $\alpha = 0$  then  $P_0 = H = q/n$ . This is the "head-count ratio," which is simply the proportion of population that has expenditure below the poverty line. If  $\alpha=1$  then  $P_1=HI$  where  $I = (Z-Y_{it})/Z$  and  $Y_{it}$  is the average household per capita expenditure of individual *i* in period *t*. This is the "income gap ratio", which captures the average expenditure shortfall of the poor. If  $\alpha = 2$  then FGT measure is sensitive to the distribution of income within the poor. Its inclusion in the measure captures relative deprivation of the poor.

Location index is also presented to analyse the concentration of poor in each village.

### $L_i = P_i / P_0 *100$

Where,  $P_i$  is the percentage of poor households in each village and  $P_0$  the over all percentage of poor households in the community.

If  $L_i = 100$ , equal share of poor households in village *i* relative to the proportion of poor  $P_0$  in total households.

If  $L_i > 100$ , greater concentration of poor households in village *i* relative to the proportion of poor  $P_0$  in total households.

If  $L_i < 100$ , smaller share of poor households in village *i* relative to the proportion of poor  $P_0$  in total households.

In order to quantify the extent of income inequality in the community, Gini coefficient is applied which measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. Its value ranges from zero (perfect equality) to one (perfect inequality). Lorenz curve is a graphic device that plots the cumulative percentage of total income received against the cumulative number of total recipients, starting with the poorest households.

# **IV. ANALYSES**

### (a) Poverty Measures

This section highlights poverty and income distribution in the community.

For measuring incidence of poverty cost of basic need approach under which the minimum consumption requirement to purchase a fixed bundle of food and nonfood basic need is used as the cut point. The poverty estimates in each village of union council of *Dhamyal* are presented in Table 2. The survey result indicates that on the whole 35 percent of the households are in the state of poverty in the community indicating that these households do not have earned enough to meet their basic food and nonfood requirements. This can be compared with incidence of poverty in rural area of the country estimates at 28.35 percent of poor in 2004 [Pakistan (2005)]. The percentage of poor also exhibits a significant degree of variation among the seven villages of the union council. The highest percentages of poor households are found in villages *Hayal* and *Mohra Bariyan* and lowest level of poverty is found in village *Jorian*.

| Poverty in Union Council Dhamyal—2004 |           |           |          |               |                |
|---------------------------------------|-----------|-----------|----------|---------------|----------------|
| Villages in UC                        | Incidence | Intensity | Severity | Poverty Share | Location Index |
| Dhamyal                               | 30.8      | 7.5       | 3.1      | 17.1          | 87.7           |
| Jorian                                | 28.1      | 4.9       | 1.5      | 5.1           | 79.7           |
| Banda Nagal                           | 35.5      | 9.1       | 3.5      | 14.0          | 101.4          |
| Hayal                                 | 41.4      | 10.4      | 3.9      | 25.4          | 118.1          |
| Mohra Chapper                         | 29.5      | 5.6       | 1.5      | 8.9           | 84.8           |
| Mohra Bariyan                         | 42.5      | 9.7       | 3.2      | 16.3          | 121.6          |
| Mohra Faqeeran                        | 30.7      | 5.2       | 1.4      | 13.1          | 87.3           |
| Total UC                              | 35.0      | 7.9       | 2.8      | 100           |                |

 Table 2

 coverty in Union Council Dharmal

The head count index or incidence of poverty does not take into account the distribution among the poor. So it is imperative to understand the distribution among the nature of poverty. Intensity and severity of poverty are the other two measures of poverty which takes into account the poverty gap and inequality among the poor. These two measures indicate the high magnitude of poverty in villages *Hayal* and *Mohra Bariyan*. Village *Hayal* has also highest share in poverty in the union council. Location index evaluates the concentration of poverty as compared to its population share. *Mohra Bariyan* and *Hayal* villages have high poverty share as compare to its population share in the union council *Dhamyal*.

| Table 3 |
|---------|
|---------|

| Households       | % of Income | Cumulative % of Income |
|------------------|-------------|------------------------|
| Quintile 1       | 6.7         | 6.7                    |
| Quintile 2       | 12.2        | 18.9                   |
| Quintile 3       | 16.3        | 35.2                   |
| Quintile 4       | 21.8        | 57.0                   |
| Quintile 5       | 43.0        | 100                    |
| Gini Coefficient | 0.42        |                        |

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

In Table 3 the analyses demonstrates the percentage and cumulative share of per capita income by quintile which provides a rough idea of how equal or unequal income distribution is. The lowest quintile (i.e, lowest 20 percent) of the household gets 6.7 percent of income share while highest quintile (i.e, upper 20 percent) enjoy 43 percent of income share. The middle 60 percent household gets 50.3 percent of income share. This can be compared with rural area of the country as a whole, where bottom 20 percent has 7.3, middle 60 percent have 47.5 and top 20 percent have 45.2 of per capita household income share in 2001-02. It is notified that bottom 20 percent and upper 20 percent have less income share while middle 60 percent have greater income share as compared to over all rural area of Pakistan. The estimate of Gini coefficient which indicates the degree of income inequality is 0.42 while the value of Gini coefficient for rural Pakistan is 0.37 for 2001-02. This shows that income inequality in the community is high as compare to over all rural Pakistan.



Fig. 1. Lorenz Curve for Income Distribution

Lorenz curve gives a visual sense of income inequality by plotting cumulative share of income among the households in the figure. The diagonal line represents perfect equality. Lorenz curve shows the deviation from perfect equality. (see Figure 1)

### (b) Socio-economic Dimensions of Poverty

This section covers the socio-economic dimensions of poverty which includes labour force, education, health, and housing and sanitation conditions in the community.

The head of the households are divided according to their labour market activity and poverty status in Table 4. Although majority of the head of the households are employed but they cannot earn enough to meet both ends. It is also reported that majority of them are employed in the low paid informal sectors. The study also marked that a small percentage of labour force is unemployed and a high percentage of them were inactive in poor households. When the reason of inactiveness in the labour market is analysed, it is observed that high percentage of household heads are either have poor health. It is also observed that no of earners per household is greater in poor as compared to non poor households. Kemal (2003) reported that the contribution of second earners in the household income is only 3.5 percent in poor rural households.

| Labour Force by Poverty Status (%) (Head of the Household) |      |          |       |  |  |
|--|------|----------|-------|--|--|
| Labour Force   | Poor | Non-poor | Total |  |  |
| Employed   | 79.7 | 82.5     | 81.5  |  |  |
| Unemployed   | 3.1  | 2.0      | 2.7   |  |  |
| Inactive   | 18.3 | 14.4     | 15.8  |  |  |
| Total  | 100  | 100      | 100   |  |  |
| No. of Earners   | 1.74 | 1.65     | 1.68  |  |  |

Table 4

The estimates in Table 5 show the full time and part time workers by poverty status. Full time workers are those who work 8 or more than 8 hours per day. It is analysed that majority of poor and non poor households work as full time, only small proportion of households work as part time due to non availability of more work.

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| Work Status by Poverty Status (%) (Head of the Household) |      |          |       |  |
|---|------|----------|-------|--|
| Work Status   | Poor | Non-poor | Total |  |
| Full Time   | 89.2 | 92.1     | 91.1  |  |
| Part Time   | 10.8 | 7.9      | 8.9   |  |
| Total   | 100  | 100      | 100   |  |

Table 6 contains information in various employment sectors and poverty status. We have taken industry of the head of the household as a proxy for the industry of the household as a whole. In such cases where the head of the household are not found economically active, the industry of the next earner in the family is taken as a proxy for industry of the household.

The study shows that agriculture sector has about 10 percent of total employment where as in rural area of Pakistan it absorbs more than 40 percent of employment. Major economic activities in rural areas are related directly or indirectly to agriculture sector. As the union council *Dhamyal* is situated in arid area of district Rawalpindi, the extreme drought over the last three years and have no water reservoirs in the area has affected agriculture production badly. Services sector appears to be particular important both for poor and non poor, as one third of employment is in this sector.

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| Sectoral Distribution and Poverty Status (%) |       |         |          |  |
|--|-------|---------|----------|--|
| Poverty Status                               |       |         |          |  |
| Sectors                                      | Poor  | Non-poo | or Total |  |
| Agriculture                                  | 10.0  | 9.5     | 9.7      |  |
| Manufacturing                                | 5.7   | 5.5     | 5.6      |  |
| Public Utilities                             | 3.4   | 4.8     | 4.3      |  |
| Construction                                 | 7.7   | 8.3     | 8.1      |  |
| Trade  | 9.1   | 8.9     | 9.0      |  |
| Services                                     | 35.7  | 33.3    | 34.2     |  |
| Transportation                               | 9.1   | 11.7    | 10.8     |  |
| Finance                                      | 1.4   | 2.0     | 1.8      |  |
| Others                                       | 17.7  | 16.0    | 16.6     |  |
| Total  | 100.0 | 100     | 100      |  |

 Table 6

 Sectoral Distribution and Poverty Status (%)

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

The Table 7 demonstrates that the poor households have large household size and high dependency ratio which shows that population less than 15 years old and greater than 60 years old is high in poor households.

Table 7

| Household Size and Dependency Ratio by Poverty Status |      |          |       |  |  |
|---|------|----------|-------|--|--|
| HH Attribute  | Poor | Non-poor | Total |  |  |
| Household Size  | 7.7  | 6.0      | 6.6   |  |  |
| Dependency Ratio (%)                                  | 88.2 | 66.5     | 72.4  |  |  |

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

Education clearly reduces the probability of being poor. The role of education is important in the labour market as those with higher education have more chances to be employed and earn relatively higher wages [Nasir (2001)]. The study shows that majority of poor head of the households are illiterate while a small proportion have above matric education. The main difference across households in poverty status is at matriculation and above level of education.

| Table | 8 |
|-------|---|
|-------|---|

|                  | Pover |          |       |
|------------------|-------|----------|-------|
| Education Level  | Poor  | Non-poor | Total |
| Illiterate       | 40.2  | 25.2     | 30.5  |
| Below Primary    | 3.4   | 4.1      | 3.9   |
| Less than Metric | 33.0  | 31.8     | 32.2  |
| Matric           | 16.8  | 21.7     | 20.0  |
| Above Matric     | 6.7   | 17.1     | 13.4  |
| Total            | 100   | 100      | 100   |

*Level of Education by Poverty Status (%) (Head of the Household)* 

Health is an important indicator of well being. Out of the total population, both poor and non-poor morbidity rate comes to around 200 per 1000 population. Majority of them are suffered from fever, high blood pressure, asthma, heart diseases, diarrhea, typhoid, diabetes, arthritis and tuberculosis in the community. The poor are more vulnerable to fever, diarrhea, typhoid, arthritis, asthma and tuberculosis. The result in Table 9 indicates access to health facilities by the poverty status. As it is reported that there is no adequate public or private health facilities available in the union council, people have to go for treatment in nearby city, Rawalpindi. Only a small percentage of population use traditional methods i.e. *Hakim*, homeopath or faith healer.

Access to Health Facilities by Poverty Status

|             | Poverty Status |          |       |  |
|-------------|----------------|----------|-------|--|
| Facilities  | Poor           | Non-poor | Total |  |
| Government  | 45.2           | 42.3     | 43.4  |  |
| Private     | 42.6           | 45.3     | 44.2  |  |
| Traditional | 10.8           | 10.5     | 10.6  |  |
| Pharmacists | 1.4            | 2.0      | 1.8   |  |

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

The analyses in Table 10 indicate that female-headed households are relatively more affected by poverty. It is reported that female-headed households are working as part time wage employee in the informal sector. A combination of low wages and risks that are inherent in the informal sector employment worsens the prospect of exiting out of poverty. Male-headed household follow the trend of overall poverty in the union council. The community has less percentage of female-headed household as compared to rural Punjab 9.2 percent [HIES (1999)].

| Gender and Poverty Status (%) |        |          |       |  |
|-------------------------------|--------|----------|-------|--|
| Poverty Status                |        |          |       |  |
| Head of the Household         | Poor   | Non-poor | Total |  |
| Male                          | 96.6   | 96.9     | 96.8  |  |
|                               | (34.9) | (65.1)   | (100) |  |
| Female                        | 3.4    | 3.1      | 3.2   |  |
|                               | (37.5) | (62.5)   | 100   |  |
| Total                         | 35.0   | 65.0     | 100   |  |

Table 10

# **Housing and Poverty**

Inadequate housing creates a sense of insecurity and disempowerment among the poor. The housing index based on the hypothesis that the level of poverty of a household will be reflected in the quality of his dwelling. Using this housing index Nazli and Malik (2003) indicated that 61 percent households are poor according to HIES data for 1998-99.

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| Ownership of Housing by Poverty Status (%) |      |          |       |
|--|------|----------|-------|
| Ownership of House                         | Poor | Non-poor | Total |
| Owned                                      | 91.0 | 93.5     | 92.7  |
| Rented                                     | 9.0  | 6.5      | 7.2   |
| Rent Free                                  | 0.3  | 0.9      | 0.5   |

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

According to the 1998 Population and Housing Census of Pakistan, out of the total housing units in rural area 87.3 percent are owned, rented 2.0 percent and 10.7 percent rent free. However, in the union council more than 90 percent owned housing units both poor and non poor but percentages of rented housing units are higher for poor households.

| Ta | bl | le | 1 | 2 |
|----|----|----|---|---|
|    |    |    |   |   |

| Structure of House by Poverty Status (%) |      |          |       |
|--|------|----------|-------|
| Structure of House                       | Poor | Non-poor | Total |
| Pakka                                    | 67.7 | 78.2     | 74.5  |
| Katcha                                   | 8.3  | 6.8      | 7.3   |
| Katcha/Pikka                             | 24   | 15.1     | 18.2  |

Housing conditions are one of the key determinants of quality of life. According to the 1998 Population and Housing Census of Pakistan 55.8 percent housing units are *pakka*, 36.0 percent *katcha* and 8.2 percent *katcha/pikka* in rural Punjab. However, the study shows that 67.7 percent poor household own *pakka* as compare to 78.2 percent non poor. A significant percentage of poor also live in *kitcha/pakka* housing units in the community.

#### Table 13

| Source of Water | Poor | Non-poor | Total |
|-----------------|------|----------|-------|
| Inside House    | 61.7 | 69.9     | 67.0  |
| Outside House   | 38.3 | 30.1     | 33.0  |
| Total           | 100  | 100      | 100   |

Source of Drinking Water in the House by Poverty Status (%)

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

In rural Pakistan many households do not have access to safe drinking water. According to the 1998 Population and Housing Census of Pakistan 83.4 percent housing units have inside source of drinking water in rural Punjab. The study shows that about two third households have source of drinking water inside house while one third have outside source of drinking water.

Availability of safe drinking has direct implication for the health status of the people. The statistic in Table 14 presents the main source of drinking water by poverty status. The main source of drinking water in rural Punjab is hand pump which is 69 percent while in this community open well is the main source of drinking water. Majority of poor households have major source of drinking water is open well while non poor have open well/motor pump. Only a small percentage of households have tap water in the community as a whole.

### Table 14

| Main Source o   | of Drinking Water | by Poverty Status (% | ó)    |
|-----------------|-------------------|----------------------|-------|
| Source of Water | Poor              | Non-poor             | Total |
| Тар             | 2.5               | 3.7                  | 3.4   |
| Open Well       | 47.5              | 38.1                 | 42.1  |
| Hand Pump       | 18.6              | 13.7                 | 15.7  |
| Motor Pump      | 22.8              | 39.7                 | 32.6  |
| Community Tank  | 8.5               | 4.8                  | 6.2   |

| Type of Toilet in Use by Poverty Status (%) |      |          |       |
|---|------|----------|-------|
| Туре  | Poor | Non-poor | Total |
| Flush                                       | 62.6 | 70.6     | 67.8  |
| Open Drain                                  | 12.0 | 14.0     | 13.3  |
| No Toilet                                   | 25.4 | 15.4     | 18.9  |
| Total                                       | 100  | 100      | 100   |

Table 15

Access to toilets remains low in rural areas; although there is evidence to suggest that it has improved between 1995-96 and 2001-02. In the rural Punjab 31 percent have flush connected to public sewerage or flush connected to pit while 68 percent have no toilet [Pakistan (2001)]. In the present study although majority of the households have flush connected to public sewerage or septic tank or soak pit but one forth of poor households have no proper toilet system in the dwelling.

According to PIHS 2001-02 there is a large proportion of rural households in Punjab without any drainage system. Some 42 percent has open drains and 56 percent do not have any sanitation system. The union council has much poorer sanitation provision, only a small proportion of households have underground sewerage/drains. Majority of poor households have no sanitation system as reported in Table 16.

Table 16

| Туре            | Poor | Non-poor | Total |
|-----------------|------|----------|-------|
| Underground S/D | 12.0 | 9.5      | 10.4  |
| Open Drain      | 53.7 | 69.6     | 64.   |
| No System       | 34.3 | 20.9     | 25.6  |
| Total           | 100  | 100      | 100   |

Type of Sanitation Facilities in Use by Poverty Status (%)

Source: Computed from CBMS pilot survey of Union Council Dhamyal, 2004.

| 17 |
|----|
|    |

Garbage Collection System from the Households (%)

| System                  | Total |
|-------------------------|-------|
| Tehsil Administration   | 0.2   |
| Local Collective System | 1.5   |
| Private System          | 3.2   |
| No Formal System        | 95.1  |
| Total                   | 100   |

The present analysis also shows that some 95.1 percent households both poor and non poor reported that they had no formal garbage collection system where as in rural Punjab 90 percent have no formal garbage collection system. Only a small percentage of households benefits from *Tehsil* administration service in the community.

### V. CONCLUSIONS AND POLICY IMPLICATIONS

The present study analyses poverty and inequality at the lower administrative level. It is based on the CBMS pilot survey data which was carried out in the union council of *Dhamyil*, situated in rural area of district Rawalpindi. The analysis shows that 35 percent of the households are poor while there is wide variation of incidence poverty among the seven villages of the union council. The highest magnitude of poverty in terms of incidence, intensity and severity is found in the villages of *Hayal* and *Mohra Bariyan*. Location index also demonstrates that these two villages have high concentration of poverty as compared to its population share in the community. Income distribution by quintile shows that bottom 20 percent households receive 6.7 percent of per capita income share while upper 20 percent households receive 43 percent of per capita income share.

In the case of socio-economic dimensions of poverty, labour market, education, health, housing and sanitation conditions are also discussed. The labour force participation rate of the head of the households reveal that majority of the poor are employed in low paid informal sector. It is also observed that 10 percent poor household heads are underemployed. The present analysis also reveals that number of earners, household size and dependency ratio are high in poor households as compared to non poor households. Education level of the head of the households marked a high percentage of illiterate in poor households. Fever, diarrhea, typhoid, asthma, arthritis, diabetes, kidney problems and tuberculosis are common diseases in the community. Due to inadequate health facilities in the community majority of population avail public or private health facilities in near by city. The housing and sanitation conditions of the community shows that all the seven villages are deprived of most civic amenities. Ownership of dwelling shows that 91 percent poor owned housing units with 67 percent have pakka structure. About 38 percent poor households have outside source of drinking water. A large number of poor households use open well as main source of drinking water while a 3.4 percentage of all households have access to tap water in the community. Although the toilet facilities inside the house is better as compare to rural Punjab but still one fourth of poor households have no toilet facility in side the dwelling. As far as type of sanitation facilities are concerned the union council has much poorer sanitation provision, only a small proportion of households have underground sewerage/drains while 90 percent of households have open drains or no sanitation system. Finally, 95 percent households reported that they have no formal garbage collection system in

the community. Thus the present analysis portrays that the community as a whole is deprived of many socio-economic dimensions of well-being.

The present study will enable the local government to formulate policies and programs more responsive to the need of the people. Moreover, the local people can acquire useful knowledge about the status of poverty in their local area that helps them to take necessary decisions for the well being of the people. Finally, this analysis will also facilities faster and sustained reduction in poverty and helps us to attain the MDGs goal of halving extreme poverty incidence by 2015.

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# Comments

This paper meets several important needs—It is part of a programme to build community-level monitoring capacity for poverty alleviation in Pakistan; it highlights the multidimensional nature of poverty and presents information at the most basic level—the "grass roots level" for all poverty alleviation strategy planning and implementation in Pakistan; it contains analysis that describes poverty using both the standard money-metric poverty measures as defined by Forster Greer and Thorbecke in 1984 as well as a description of the other community and household level economic and social indicators that describe poverty. It also estimates income inequality and presents a Lorenz curve for the community.

The paper highlights the fact that "Poverty is a situation of deprivation, failure to fulfil the minimum basic physical and psychological needs of an individual due to unavailability of sufficient economic resources at its disposal. It is associated to insufficient outcomes with respect to nutrition, health and education, to deficient social relations, to insecurity and to low self-esteem and powerlessness. So poverty can be analysed from monetary and non-monetary indicators of well being".

The paper is based on data from an interesting experiment. In order to pioneer ways of collecting information at the grass roots level the Community Based Monitoring System (CBMS) in Pakistan under the aegis of the IDRC has implemented a project through the Pakistan Institute of Development Economics (PIDE) that involves taking a census in two union councils of rural Punjab, one in district Rawalpindi (Dhamyal union council) and the other in district Toba Takh Singh (GB42 union council). The project aims to collect information on a core set of CBMS indicators that can be used for the design, monitoring and evaluating of development programmes/policies and eventually for the facilitation of faster and sustained reduction in poverty and assistance in attaining the Millennium Development Goals.

Rashida Haq has computed a large set of poverty descriptives on the Dhamyal Union Council by using the data that are collected under the CBMS project. However, this is only the first step. The analysis in its present form does not provide many meaningful policy handles. A number of useful extensions would have added greatly to the value of the paper. I list some of these:

(1) Conducting some simple statistical tests for the reliability of the information would provide insight into the quality of the data and the indices that are computed from these. For example what is the variation around the mean values that are reported?

- (2) Extending the analysis beyond the simple bivariate cross tabs and univariate descriptive would have given greater insight into the determinants of poverty and hence to its alleviation. For example, how the money-metric and other indicators are clustered, by caste, educational status or occupational status provides easy policy handles to address the problem.
- (3) Dhamyal is a suburb of Rawalpindi and lies only a few kilometres from the district headquarter. It would have been useful to contrast these data with other community based data from less developed district or from communities further from the district headquarter. How does distance from the district centre affect the various determinants of poverty—do these indices vary differentially by distance? After all one purpose is to develop a set of robust core indicators for the CBMS.
- (4) How do these statistics relate to the more aggregate national, provincial and agro-climatic levels, etc. etc.

Moreover, it would be extremely interesting to look at some analysis of the cost of collecting this information. Eventually such information is to be collected by the grass roots organisations themselves. These organisations face severe financial and human capital constraints. For the monitoring to be successful—sustainability is a key element. How does the experiment by the Pakistan Institute of Development Economics address this? More importantly how does the experiment by PIDE (or by the IDRC) envisage the information that it has collected will feed into the design of policies at the grass roots and other levels.

Replicability of the experiment and its scalability to cover the entire country eventually are key to the success of the CBMS. While Rashida's study shows that poverty related data can be collected at the community level it does not answer the larger questions. Addressing these would enhance the usefulness of this important study.

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