

## **Impact of Local Institutions on Development and Poverty Reduction in Rural Areas of Pakistan**

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### **Abstract**

**The study examines the impact of local institutions on development and poverty in the rural areas of Pakistan. Recent research on the role of institutions in economic development indicates the importance of both “macro” and “micro” institutions including local institutions. The study finds a large number of both formal and informal local institutions in the surveyed villages, and a substantial degree of interaction of the households with the institutions. This study also discovers that apart from the standard factors including land, capital and labor, the presence and membership in local institutions plays a significant role in explaining the variation in household incomes and gain in capital assets over time. Savings/ micro-credit groups are found to be particularly important. Recorded opinions of the households support the findings on the impact and beneficial role of local institutions. The study confirms that institutions do matter, and that local institutions can and do make a significant contribution in helping development in the rural areas, especially for the lower income groups.**

### **Introduction**

Institutions and their impact on economic development has been a subject of considerable interest in the recent years. It is being widely acknowledged now that apart from the standard factors of capital, labor and technology, institutions may matter substantially in determining the growth path and the outcome of development (North 1997). Institutions may often help in explaining why growth and development outcomes vary across areas, countries, and also over time. Olson and Kahkonen (2000) and Picciotto (1995) support the usefulness of the institutional economics approach.

Williamson (2000) classifies the institutional environment into a “macro” and “micro” reality or levels. The macro level deals with the rules of the game or the humanly devised constraints that structure political, economic and social interactions: the informal constraints (sanctions, taboos, customs, traditions and codes of conduct), and formal rules (constitutions, laws, property rights) North (1991). The micro level deals with institutions of

governance – market, quasi-market and hierarchical modes of contracting, or of managing transactions and seeing activities such as economic activities. Most formal and informal local institutions in the rural areas of Pakistan may fall into the micro category. Gandhi (1998) provides a survey on institutions related to agricultural development in India. Households are usually embedded in the local institutional environment and they interact with it dynamically under the influence of prevailing social, economic and political structures, culture and power relations. Some institutions support the poor while others discriminate against them. The success of collective action for gaining access to resources and markets often depends on the effectiveness of institutions in serving their constituencies.

The decisions that households make on how to allocate resources and generate income often depend, not only on the household’s resources but also on the local institutional environment. This paper analysis the local institutional environment in rural Pakistan.

### **Objectives**

- To examines the interaction of households with the institutions.
- To examine whether over and above the standard determinants of house hold welfare, local institutions could be making a difference in development outcomes such as income and capital asset growth.
- To examine whether local institutions make a difference in the outcomes of economic development and poverty alleviation.

### **Methods and Procedures**

The primary data was collected from rural households by designing a survey-questionnaire in Multan Division. Four villages were selected randomly from Multan Division. From each of the selected village 10 households were selected at random. Hence total 40 respondents (households) were interviewed for data collection. Household incomes can be estimated by different methods. To find out the effect of institutions on the household incomes or welfare a model can be estimated incorporating the most relevant variables. In the rural family units of Pakistan, the following variables were included: land, capital assets, labor, level of education as well as institutional memberships. It is hypothesized that in a cross-sectional sample, rural household income is a function of:

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$$Y = f(A, K, L, E, I)$$

Where:

Y = Total Household Income

A = Land Owned

K = Capital Assets (productive, other than land)

E = Education level

I = Institutional membership

L= Labor

Land can be classified into irrigated and non-irrigated, irrigated lands are more productive than non-irrigated lands. Land productivity also depends on the level of technology used. Both the irrigated and non-irrigated lands are included in this model separately as independent variables. Capital assets include farm machinery, livestock, building and cash balances. Education has different levels from illiteracy to higher education. Institutions are represented by institutional memberships. The following five institutions are included in this model: Village Service Cooperative (Farm Credit and Inputs), Village Dairy Cooperative (Milk Producers), Savings Group (Micro-credit), Village Community Association, and Labor Group.

The following function was estimated:

$$Y_i = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11})$$

Where:

Y1= Gross total household income, Y2 = Change in total household assets,

Y3 = Change in non-land household assets. (Change between 1995-96 and 2002-03).

X<sub>1</sub> = Non-irrigated land owned

X<sub>2</sub> = Irrigated land owned

X<sub>3</sub> = Total value of all farm assets excluding land

X<sub>4</sub> = Family labor force (13-60 year)

X<sub>5</sub> = Education level

X<sub>6</sub> = 1 if the District is Multan, zero otherwise;

X<sub>7</sub> = Membership of service cooperative (mainly farm credit and inputs)

X<sub>8</sub> = Membership of dairy cooperative

X<sub>9</sub> = Membership of savings (micro-credit) group

X<sub>10</sub> = Membership of village community association

X<sub>11</sub> = Membership of labor group (labor contracts)

## Results and Discussion

The institutional survey indicated that there were 28 local institutions in the 4 villages. There were 18 institutions in Multan and 10 in Vehari. Out of 28 institutions, 20 were formal whereas 8 were informal. Additional features of the household survey are given in the Table-1. Table 2 shows that a significant percentage of the households sample were illiterate (45.4 percent). Table 2 shows that the household heads had many different occupations, 36.7 percent were into farming and 45 percent were agricultural labour. This indicates a huge dependence on agriculture for incomes and livelihood.

**Table 1: Literacy of total population above 12 years**

S. No.	Education	Multan	Vehari	Total (Percentage)
1	Illiterate	59.8	31.2	45.4
2	Literate	40.2	68.8	54.6
	Total	100	100	100

**Table 2: Major Occupation of the Head of the Households**

Occupation	Percentage
Farming	36.7
Agricultural Labour	45
Service	0.8
Blacksmith	0.8
Carpenter	0.8
Mason	1.7
Shopkeeper/Trader	2.5
Hair Cutting	0.8
Driver	2.5
Domestic Work	0.8
Vegetable Hawker	1.7

**Table 3: Distribution of Households on Land Owned**

Status	Percentage	
	1995-96	2002-03
No Land	37.5	35.8
Marginal (>0 to 2.5 acres)	27.5	30.0
Small (2.5 to 5.00 acres)	18.3	16.7
Medium (5.01 to 10.00 acres)	13.4	15.0
Large (Above 10 acres)	03.3	02.5
All	100	100

Table 3 indicates the status on land distribution. It indicates that landless households form a substantial percentage (35-40 percent), and around 30 percent are marginal, having less than 2.5 acres of land.

**Table 4: Memberships**

Description	Percentage
<b>Membership by Gender in Institution</b>	
Male	77.0
Female	23.0
<b>Role in Institution</b>	
Just a Member	98.4
Committee Member	1.6
<b>Members Attending the Meeting in a Year</b>	
Not attending at all	8.7
1-2 Meetings	71.0
3-4 Meetings	12.6
4-5 Meetings	2.2
Many	5.5

Table 4 presents information on household membership in institutions. 77 percent of the members are men and 23 percent are women. 1.6 percent indicates that they are committee members. Participation in meetings appears to be reasonably high with only 8.7 percent not attending any meeting and 71 percent attending at least 1 or 2.

The OLS regression analyses are given in Table 7. Estimation is done for the full sample, as well as for the sample below median household income. The results of the full sample function for household income indicate that determinants such as irrigated land, capital, labour and education are strongly associated, institutional variables such as savings/micro-credit group membership also show a strong association, indicating the importance of

institutions. The capital asset gain equations also show strong association with capital and education but also with institutional membership in savings/micro-credit group. The equations results for the below median income group segment are also given in the Table. The household income equation indicates that labour force and education show strong associations but some institutions such as dairy cooperative and community association are also associated. The capital asset increase equations reveal a significant association with the dairy cooperative membership. These findings indicate the development impact of institutions in the area. The results show that institutions matter and some institutions matter even more for the poorer population.

**Table 7. OLS Regression Results of Determinants of Household Income and Asset increase**

Eq. No.	Dep. Vari	Independent Variables													R <sup>2</sup>	N	
		Constant	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	X <sub>10</sub>	X <sub>11</sub>				
<b>Full Sample Size</b>																	
1	Y1	Coeffi	-4302.2	422.75	9535	0.19003	2895.5	4021.9	1821.2	-9102	6312.5	26890	5152.3	-7026.9	0.872	120	
		t-state	-0.530	0.328	8.965	2.150	2.683	2.926	0.320	-1.319	0.981	2.227	0.704	-0.785			
		Signifi			***	**	**	***				**					
2	Y2	Coeffi	-3802.5	1092.9	4010.6	0.89648	3992.1	6454.9	-16982	1200.4	-4579.4	32246	-33822	-11802	0.719	120	
		t-state	-0.201	0.240	1.518	5.314	1.789	2.066	-1.160	0.073	-0.327	0.841	-2.290	-0.621			
		Signifi				***		**				**					
3	Y3	Coeffi	-2923.6	1816.1	-1032.7	0.80106	1702.0	6311.7	-3128.4	-3924.2	-6007.2	30113	-10925	-13053	0.712	120	
		t-state	-0.225	0.740	-0.795	7.158	1.210	3.673	-0.382	-0.347	-0.791	2.077	-1.504	-1.272			
		Signifi				***		***				**					
<b>Sample Size Below Median Household Income</b>																	
4	Y1	Coeffi	5268.5	62531	-1698.0	0.0692	1981.7	1337.0	-67.12	-3513.9	2082.6	-1804.2	3015.3	-2283.5	0.475	60	
		t-state	2.120	0.750	-1.738	0.627	4.927	2.622	-0.042	-0.972	1.000	-0.401	1.322	-0.879			
		Signifi	**				***	**									
5	Y2	Coeffi	716.46	13524.0	-2883.1	-0.1511	1554.6	6392.2	-19593.0	-26391	21216	-21108	-7231	-5130.5	0.346	60	
		t-state	0.067	3.123	-0.677	-0.310	0.763	2.752	-1.972	-1.776	1.982	-0.973	-0.632	-0.574			
		Signifi		***				**	*		**						
6	Y3	Coeffi	93.21	6921.4	-682.26	0.6407	618.21	6040.9	-	-1507.0	69195	-20251	-62.638	-5190.3	0.352	60	
		t-state	0.022	2.352	-0.270	1.401	0.521	3.508	14201.00	-	-1.432	0.862	-1.287	-0.026			-0.843
		Signifi		**				***									

Note: \*\*\* Significant at 99 %, \*\* Significant at 95 %, \* Significant at 90 % ,

**Conclusions**

The paper examines the impact of local institutions on development and poverty in the rural areas of Pakistan based on primary survey work. Recent revival of interest in the role of institutions on the path of economic development, and findings on their possible significant impact seems to indicate an important role of both “macro” and “micro” institutions such as local institutions. The study finds a substantial number of both formal and informal local institutions in the surveyed villages, and a substantial degree of interaction of the households with the institutions. These include formal and informal local institutions such as service cooperatives, dairy cooperatives, savings groups, community associations and labour groups. The study finds that apart from standard determinants of land, capital, labour and education, local institutions appear to play a significant role in explaining the variation in the household incomes, and the gain in capital assets over time. These include particularly the savings/ micro-credit groups, and the dairy cooperatives. Direct responses of the households also support these findings on the nature, impact and the beneficial role of local institutions. The findings confirm that institutions

matter, and local institutions can and do seem to play a significant role in helping economic development in the rural areas, including especially for the lower income group.

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