PAKISTAN
Strategy Support Program

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
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Pakistan Rural Household Panel Survey 2012 (Round 1):

Household Characteristics

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November 2012

ACKNOWLEDGEMENTS

The data collection, reporting process and key descriptive statistics from the Rural Household Panel Survey 2012 Round 1 are presented in PSSP discussion papers 007, 008 and 009. Discussion paper no. 007 reports the details of survey processes and key descriptive statistics from the community survey questionnaires. Discussion paper no. 008 provides the description of all the data collected from households except for Agriculture and Health and Nutrition. Discussion paper no. 009 provides a description and analysis of the Aspirations of these households. There will be separate discussion papers on Agriculture and Health and Nutrition which are forthcoming.

The questionnaires of this survey are benefitted from extremely useful feedback from Dr. Nadeem Ul Haque, Dr. Akmal Hussain, Dr. Muslehuddin, Dr. Masood Sarwar Awan, and the participants of the workshop held at the Planning Commission in January 2012 to discuss the need and design for this survey. We are grateful for their valuable and thoughtful comments which helped immensely in the shaping of the questionnaires. The questionnaires design team was led by Dr. Katrina Kosec of IFPRI and Nishat Malik of IDS. Thanks are also due to Dr. Harold Alderman, formerly of IFPRI and the World Bank for his formal review of the questionnaire in its design stage.

This work is the joint effort of several persons from the Pakistan Strategy Support Program (PSSP), the International Food Policy Research Institute (IFPRI), and the Innovative Development Strategies (IDS). These teams accomplished the huge task from designing the questionnaires, translation into Urdu, training of enumerators, monitoring the field survey implementation, data cleaning, data analysis, and preparation of the survey reports.

We are grateful to the 150 enumerators who worked diligently in extremely difficult circumstances. Despite several security issues, they put out exemplary efforts to collect the data. We would like to thank the 2090 households, 228 key informants, 117 school teachers, and 228 shopkeepers who participated in this survey and provided their valuable time and useful information.

We are indebted to Dr. Muhammad Sharif, Director General and the staff of NARC for organizing the accommodation and training space at the NARC for the 150 enumerators.

This work would not have been possible without the guidance and support provided by Dr. Sohail Jehangir Malik, Chairman, IDS and Dr. Paul Dorosh, Director of the Development Strategy and Governance Division at IFPRI. Their invaluable input and advice at each and every stage of this process from survey design to the production of these discussion papers is gratefully acknowledged. We are grateful to Dr. Nadeem ul Haque, Chairman of the National Advisory Committee of the Pakistan Strategy Support Program and Deputy Chairman of the Planning Commission of Pakistan for always making us all think a little harder to perfect our work.

We would like to thank Dr. Katrina Kosec, Dr. Valerie Mueller, Fatima Zaidi, Dr. Claudia Ringler, Dr. David Spielman, and Madeeha Hameed of IFPRI, and Nishat Malik, Arshad Khurshid, Azhar Amir, Danish Javaid Satti, Muhammad Awais, Anees Majeed, Mubashir Ijaz, Muhammad Imran, Zahid Masood, Munazza Saboohi, and Beenish Jabeen of IDS for their valuable contribution toward this paper. The support provided by the PSSP team members – Saira Malik, Sheheryar Rashid, Wajiha Saeed, and Mohammad Ishfaq is gratefully acknowledged. We are thankful to Col. Imran Afzal Malik and his team including, Tahir Ahmad, Haji Afsar Khan, Afzaal Ahmed, and Asjad Iqbal for providing logistic and administrative support. The painstaking editorial work by Mehrab Malek is also highly acknowledged.

Finally we would like to thank the United States Agency for International Development (USAID) for their generous funding without which this survey would not have been possible. In particular we are grateful to the ATOR Dr. Michael Wyzan, and his colleague Mr. Nazim Ali for supporting us so wholeheartedly through this process.

EXECUTIVE SUMMARY

This report presents the results of household data collected during the Rural Household Panel Survey (2012). The household survey collected information on a large number of topics, such as education, nature of employment, sources of income, time use, consumption patterns, economic shocks, and participation in social safety nets. The preliminary analysis presented in this report, provides an important baseline for understanding rural poverty. Most of the results of the RHPS-2012 presented in this report are in line with the findings of nationally representative household surveys.

Pakistan's population is relatively young. The data indicate that the rural population of Pakistan is relatively young. Over one quarter of the population is younger than 10 years old, and 59 percent is under the age of 25. This demographic dividend provides substantial opportunities for Pakistan in the coming decades, but it is also a generation that requires quality schooling and investments in human capital today. Also, it poses considerable challenges for the country to provide economic opportunities for these youth as they enter the work-force.

A majority of Pakistan's population is illiterate. The literacy rate among population 10 years and older is 44 percent; 59 percent for males and 30 percent for females. There is considerable geographic variation in literacy rates too. While the literacy

rate in KPK is about 58 percent, it is 48 percent in Punjab and only 26 percent in Sindh. The data also show that literacy is considerably higher in younger people. Only 49 percent individuals have ever attended school. The survey found low levels of completed education. Nearly 20 percent individuals were not able to complete primary, 8 percent left school before completing middle, and 3 percent could not complete matric. About 26 percent individuals were able to complete primary. Nearly 17 percent individuals completed matric. The proportion of individuals who completed more than 10 years of education including professional education is only 11 percent.

School enrollment rate significantly differs across gender and provinces. The data show that the enrollment rate among school going children aged 5 to 14 years is 53 percent. However, this aggregate number masks significant variation across gender and province. While school enrollment is 61 percent for boys, it is only 46 percent for girls. It also varies from 77 percent in KPK to 62 percent in Punjab and only 27 percent in Sindh. We also observe that girls have a higher dropout rate than boys. While poverty is cited as the main reason for non-enrollment, many respondents expressed security concerns about sending their daughters to school. Given that most people in rural Pakistan are young, it is crucial for policymakers to invest in education and provide people with necessary skills and appropriate employment opportunities.

The proportion of rural nonfarm households is more than the farm households. Rural households in Pakistan earn their livelihood from a wide range of activities. While 44 percent of households cultivated agricultural land in the past year, 22 percent earned their income from agricultural wage labor, 19 percent from non-agricultural enterprise and 15 percent from non-agricultural waged employment. Land ownership is considerably greater in higher per capita expenditure quintiles, while households in lower expenditure quintiles rely heavily on agricultural labor for earning their livelihood. Shops are the most common enterprise across the three provinces, while construction labor is the common occupation for non-agricultural workers.

Labor force participation rate among females is extremely low. The overall labor force participation rate is 35.2 percent. This number is relatively higher for males (43.7 percent) compared to females (26.3 percent). Female participation in agricultural waged labor is high in Punjab and Sindh; 58 percent of such workers are female in Punjab, and 54 percent in Sindh. In KPK, only 31 percent of agricultural waged laborers are female. However, we find extremely low levels of female participation in non-agricultural activities. Only 4 percent of females between the ages of 18-60 had worked as non-agricultural employees in the past year. We also see that working women spend a similar amount of time on household chores as women who do not work.

Households spend three-fourth of their total expenditure on food and housing. Consumption patterns vary significantly across provinces. In Sindh, nearly 74 percent of income is spent on food, beverages and tobacco, as compared to 60.4 percent in Punjab and 57.5 percent in KPK. In KPK, households dedicate a much larger share of total expenditure on housing, fuel and lighting (22.7 percent), compared to Punjab (16.8 percent) and Sindh (9.8 percent). Education is 2.32 percent of total expenditure in KPK, 1.51 percent in Punjab and only 0.4 percent in Sindh. We also see that households in lower expenditure quintiles allocate a larger share of total expenditure on basic commodities such as food and clothing compared to household in higher expenditure quintiles. Households in lower expenditure quintiles also have a larger share of expenditure on cereals and pulses, and lower share on meat, compared to households in higher expenditure quintiles.

Households have extremely low access to sanitation facilities. We find that access to sanitation is low in rural Pakistan. About 35 percent of households do not have access to any kind of toilet, while an additional 20 percent use a toilet facility that does not have any plumbing. We also find inadequate garbage disposal facilities; 60 percent of households report that they do not throw garbage in a fixed location but wherever convenient.

Illness or injuries are the most common negative shocks for rural households. The most common negative economic shock experienced by households is medical expenses due to illness or injury; 57 percent households had experienced such a shock in the past two years. Many households had been affected by the floods in 2010 and 2011. One quarter of households had lost their house, or had significant damage to their house, due to the floods.

Most households did not have any coping strategies to deal with the negative shocks they experienced. We also find that in lower per capita expenditure quintiles, many households had to resort to extreme coping strategies, such as reducing food consumption or switching to cheaper food. An interesting finding is that coping mechanisms varied significantly by the type of shock. While a majority of the households had no coping strategy for damage to house due to floods, only 36 percent had no coping strategy for wedding expenses. This suggests that households are able to prepare themselves if a negative economic shock is predictable.

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WORKING PAPER NO. 008| November 2012

1. INTRODUCTION

As discussed in Nazli and Haider (2012), Round 1 of the Pakistan Rural Household Survey was conducted in 19 districts of three provinces in Pakistan: Punjab, Sindh, and Khyber Pakhtunkhwa (KPK). In total 2,124 households were selected. However, because of the refusal of 34 households, 2,090 households were interviewed (1,340 in Punjab, 560 in Sindh, and 224 in KPK). Information on various economic, social, demographic, socio-economic variables is collected through structured questionnaires administered on males and females of these household (see Nazli and Haider 2012 for detail). The data indicate that there are 13,376 members in 2,090 households, of which 51 percent are male and 49 percent are female. The highest proportion of households speaks Punjabi (40 percent) followed by Siraiki (25 percent), Sindhi (13 percent), Pashto (7 percent), Balochi (5 percent), Urdu (1 percent), and the remaining 3 percent of households speak other languages. Most of the households were Muslim (98 percent), followed by Hindus (2 percent). Only 2 households surveyed were Christian. For most households, respondents were at home at the time of the survey (only one household had no respondent available). However, 1.1 percent of the household members[1] were away because of work and 0.2 percent were away because of education.

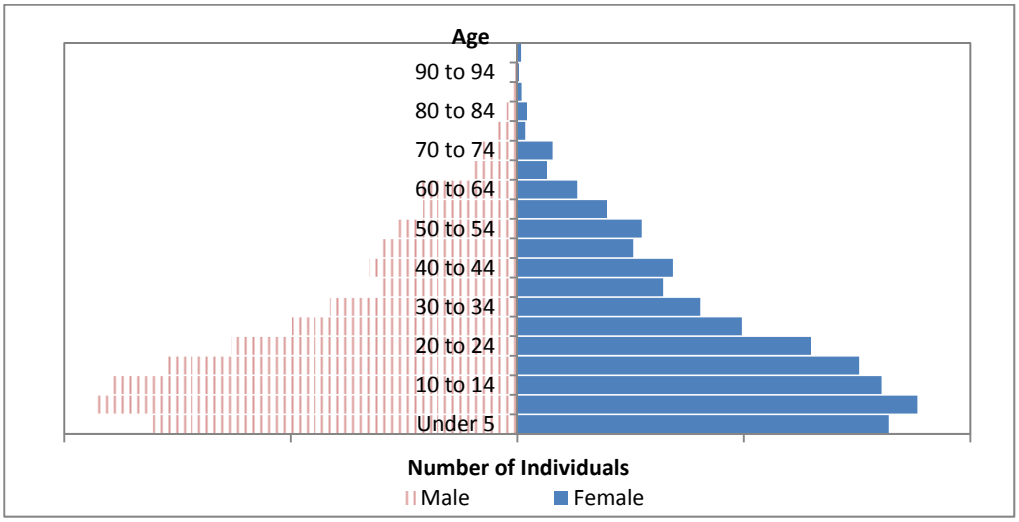
This paper presents a preliminary analysis of the data collected from these households. This report is divided into six sections, starting by describing the household characteristics. The discussion on literacy and education is presented in Section 2. The situation of employment and income is discussed in Section 3. The details of household expenditure are provided in Section 4. Section 5 presents the condition of housing and in-house facilities in rural areas of three provinces of Pakistan. Shocks and coping strategies are reported in Section 6.

1.1 Age Profile

The data indicate that the rural population in the three surveyed provinces is predominantly young, with very few elderly (60 years of age or older). Over one quarter of the population is under the age of 10. Another 13 percent is between 11 and 15 years old. This means that 38 percent of household members are under 15 years of age (see Figure 1.1). The average household has 6.5 members, with 2.5 children (under the age of 15), 3.6 working-age (15-59) adults, and 0.4 elderly (60 years of age or older).

[1] See Appendix 1 for concepts and definitions.

Figure 0.1: Population Pyramid of Rural Pakistan

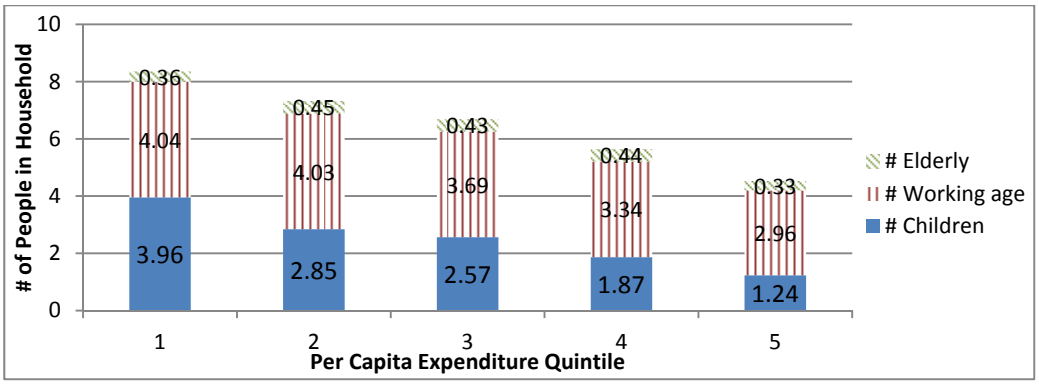


Source: IFPRI/IDS (2012)

The overall sex ratio in RHPS-2012 is found to be 105; 104 in Punjab, 107 in Sindh, and 108 in KPK. These figures of overall sample and Punjab are in line with the figures reported by Labour Force Survey 2010-11.

The household composition across per capita expenditure quintiles[2] indicates that the number of children is much higher in the lowest expenditure quintile of households (3.96) as compared with the highest (1.24) (see Figure 1.2). Indeed, 47 percent of members of the poorest quintile of households are under the age of 15, in contrast to only 27 percent of members of the richest quintile of households. This has potentially large implications for Pakistan's future population profile, and especially for the future incidence of poverty. It highlights a need to further pursue ideas on how to create economic opportunities for rural youth going forward – especially for the poor.

Figure 0.2: Household Composition by Per Capita Expenditure Quintile and Age Group



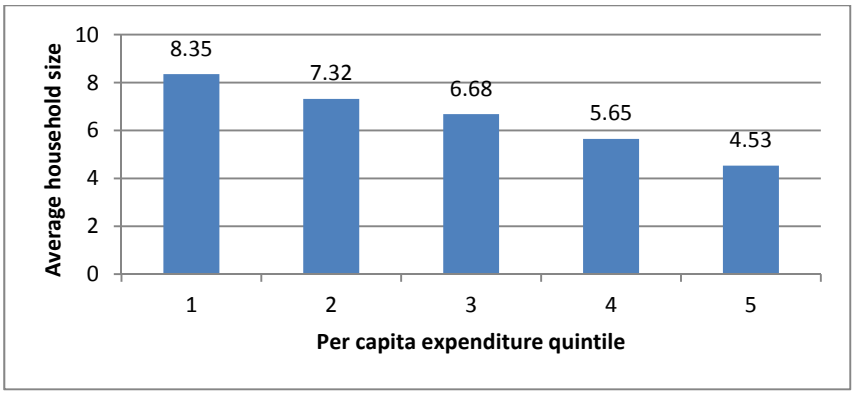
Source: Authors' calculation based on IFPRI/IDS (2012)

1.2 Household Size

Average household size in Punjab is 6.5 individuals, 6.2 in Sindh, and 6.9 in KPK. The average household size is disaggregated by quintiles. The average household size shows a decreasing trend from the 1st quintile to the 5th quintile. This shows that the richest households are slightly over half the size (an average of 4.5 members) of the poorest households (an average of 8.4 members), with the middle expenditure quintiles showing steadily decreasing household sizes by expenditure (see Figure 1.3).

[2] Based on the per capita household consumption expenditure, expenditure quintiles are created. Each quintile contains 20 percent of the sample households such that the poorest households fall in the first quintile and fifth quintile contains the richest households.

Figure 0.3: Average Household Size by Expenditure Quintile



Source: Authors' calculation based on IFPRI/IDS (2012)

1.3 Marital Status

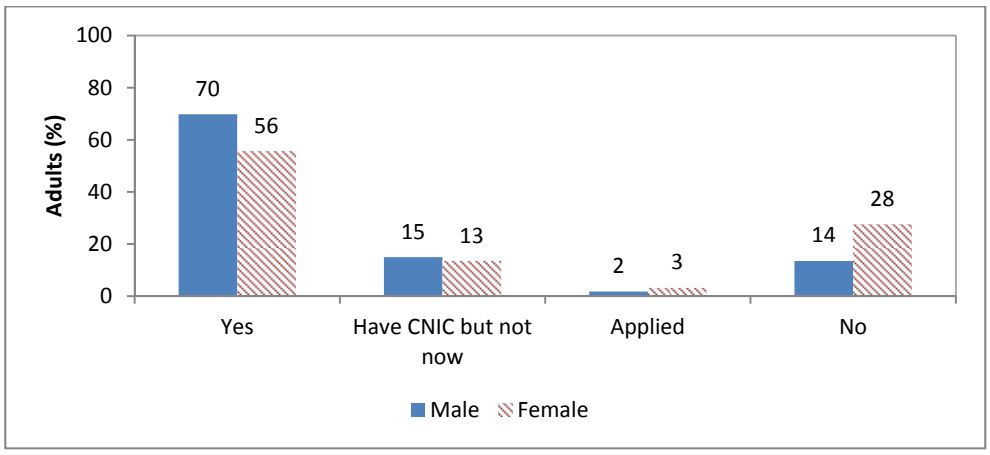
Nearly 57 percent of adults (more than 12 years old) are currently married, 4 percent married before (including widow/widower or divorced/separated), and 38 have never married. However, individuals over the age of 25, only 10 percent of men and 6 percent of women have never married. The proportion of divorced and widowed/widower increased with age. Nearly 19 percent individuals of more than 50 years of age are widow/widower or divorced.

1.4 Possession of the Computerized National Identity Card (CNIC)

The Computerized National Identity Card (CNIC) is the primary document in Pakistan that authenticates the identity of an individual. The CNIC is required for opening a bank account, for employment in the formal sector, receiving financial assistance from programs like the Benazir Income Support Program (BISP), and casting vote. All individuals of age 18 years and above are required to possess CNIC.

Overall, approximately three quarters of eligible individuals have CNIC. Nearly 18 percent say that they have a card but currently not available with them and one percent have applied for a card but not received a card yet. However, women are much less likely to have a CNIC than men, with 28 percent claiming not to have one at all, and 69 percent saying they already possess one. Among men, 85 percent claim to have a CNIC, while only 13 percent do not. The poorest households are also the least likely to have members with CNICs; in the lowest per capita expenditure quintile, 80 percent of men and only 66 percent of women say they possess one, whether it is available at the moment or not. In contrast, 89 percent of men and 70 percent of women in the highest expenditure quintile have a CNIC.

Figure 0.4: Possession of CNIC Cards by Gender



Source: Authors' calculation based on IFPRI/IDS (2012)

Summing Up

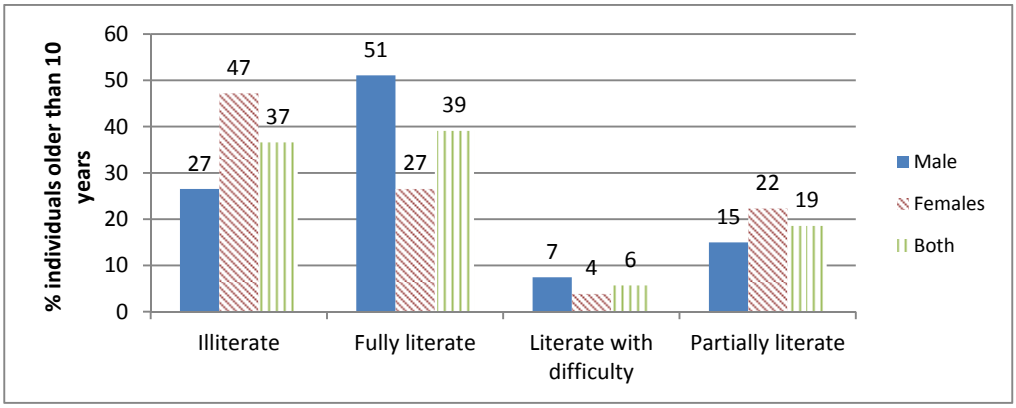
This section presents the basic household characteristics of the RHPS-2012. The survey covers 2,090 households, selected from 19 districts of three provinces in Pakistan. This survey finds that over one quarter of the population is under the age of 10. Another 13 percent is between 11 and 15 years old. The average household size is 6.5. The poorest households have larger households as compared to the richest households. Most of the individuals have CNIC. However, the proportion of males possessing a CNIC is larger than that of females.

2. LITERACY AND EDUCATION

Literacy is defined as the ability to read, write, and perform simple addition and subtraction. We define four levels of literacy: i) an individual that can read, write, and do simple calculations (addition and subtraction) easily is defined as 'literate', ii) an individual that can read, write, and do simple calculations with difficulty is defined as 'literate with difficulty', iii) individuals who can do only one or two tasks (i.e., can read but either cannot write or do calculations at all, can do calculations but not read, etc.) are defined as 'partially literate', iv) individuals who cannot do any of these tasks are defined as 'illiterate'.

Information on literacy and educational background was collected for each household member of age 5 or more. The distribution of individuals by the level of literacy is given in Figure 2.1. This figure shows that 37 percent individuals are completely illiterate. They are not able to read, write or do simple calculations. The proportion of illiterate females is higher (47 percent) than males (27 percent). Nearly 39 percent individuals are able to read, write, and do simple calculations without difficulty. The proportion of males (51 percent) is higher than females (27 percent) in this group. Another 6 percent are able to perform the three literacy tasks with some difficulty. 19 percent are partially literate of whom 15 percent are males and 22 percent are females.

Figure 0.1: Distribution of Individuals by the Level of Literacy Across Gender and Province

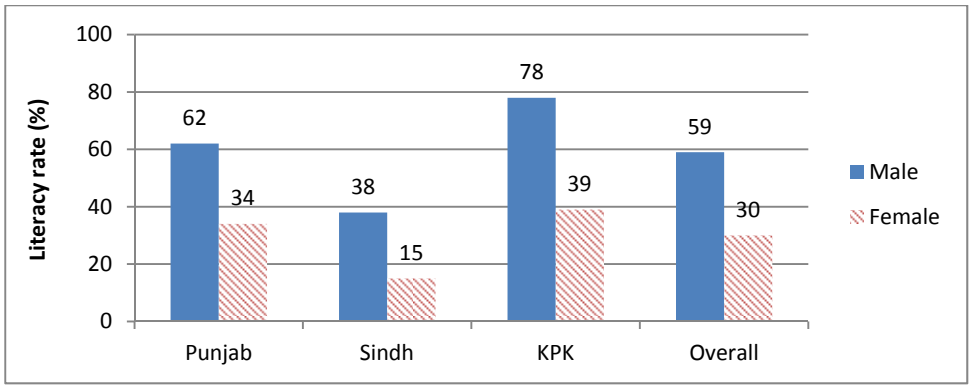


Source: Authors' calculation based on IFPRI/IDS (2012)

2.1 Literacy Rates

The overall literacy defined as the number of all individuals older than 10 years who are able to read, write and do simple calculations with or without difficulty as a proportion of all individuals older than 10 years. According to this definition, 44 percent of individuals are literate (59 percent males and 30 percent females). Provincial disaggregation shows highest literacy rate in KPK where 78 percent males and 39 percent females are literate. Sindh has the lowest literacy rates; only 38 percent of males and 15 percent of females are literate (see Figure 2.2). This distribution does not change much if literacy rate is defined as the proportion of individuals who are older than 15 years. A difference of only 3 percentage points is observed when literacy rate is considered for individuals who are more than 15 years old.

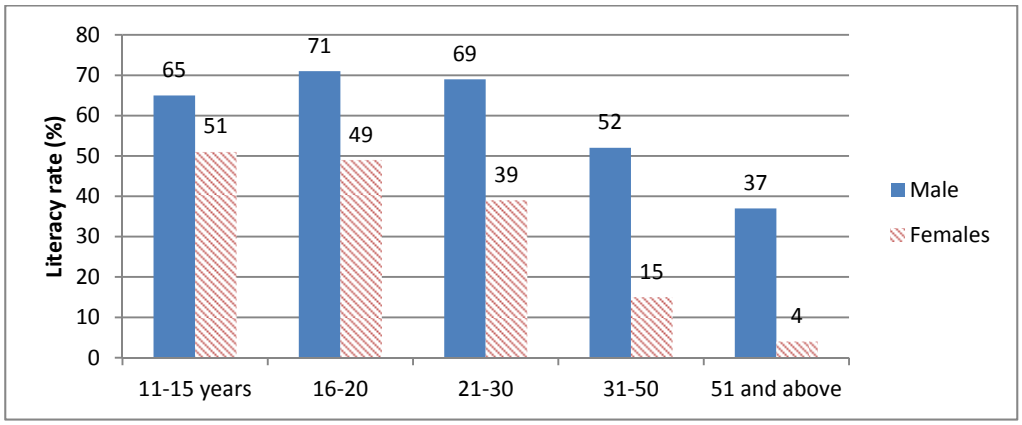
Figure 0.2: Literacy Rate by Gender and Province



Source: Authors' calculation based on IFPRI/IDS (2012)

Looking across age groups, the data shows that literacy rate is higher among the younger people. For example, among the individuals between the ages 16 to 20 years, 71 percent of males and 49 percent of females are literate. Whereas among the individuals more than 50 years of age, 37 percent of males and only 4 percent of females are literate (see Figure 2.3).

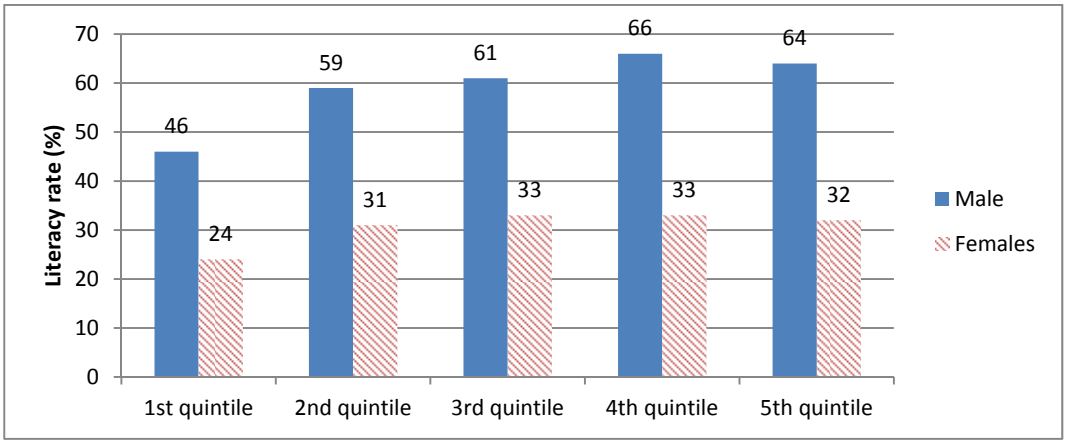
Figure 0.3: Literacy Rate by Gender and Age Group



Source: Authors' calculation based on IFPRI/IDS (2012)

The data show that the literacy rate has a positive relationship with income. These rates are higher among the households in higher expenditure quintiles than those in bottom quintiles. Further, the gap between literacy rates of males and females is smaller in the higher incbome quintiles than in the lower (see Figure 2.4).

Figure 0.4: Literacy Rate by Per Capita Expenditure Quintile



Source: Authors' calculation based on IFPRI/IDS (2012)

2.2 Completed Educational Level

The data reveal that the proportion of individuals ever attended school is 49 percent (61 percent males and 37 percent females). Looking across expenditure quintiles, the data reveal that the proportion of individuals that have never attended school is higher among the lowest quintile of households; 51 percent of men and 77 percent of women belonging to this group have never attended school, compared with 35 percent of males and 69 percent of females in the highest expenditure quintile.

The survey asked questions about the completed level of schooling for all individuals older than 5 years. The completed years of schooling of the individuals who are currently not in school is reported in Table 2.1. This table shows that 57 percent of individuals never attended in school, 8 percent of individuals were not able to complete primary, 4 percent left school before completing middle, and 2 percent could not graduate from high school. About 10 percent of individuals were able to complete primary. Nearly 8 percent of individuals completed matric. The proportion of individuals who completed more than 10 years of education including professional education is only 6 percent. The provincial disaggregation shows that 14 percent of individuals in KPK have matric education, and 7 percent have an educational level higher than matric. In Punjab and Sindh, most of the individuals who have attended school have primary as their highest completed level of education. However, the proportion of individuals having completed matric and more than matric is higher in Sindh than that in Punjab.

Table 0.1: Completed Years of Education by Province

	Punjab	Sindh	KPK	Overall
Never attended school	54.8	65.7	50.3	56.7
Less than primary (<5 year)	7.9	7.6	5.4	7.6
Completed primary (=5 years)	11.2	7.7	8.8	10.2
Uncompleted middle(>6 but <8)	4.1	1.0	5.4	3.6
Completed middle (=8)	8.0	2.6	5.0	6.6
Uncompleted matric (>9 but <10)	1.7	0.3	3.8	1.6
Completed matric(=10)	7.4	8.4	14.2	8.2
Higher than matric	4.9	6.8	7.1	5.5
All	100	100	100	100

Source: Authors' calculation based on IFPRI/IDS (2012)

Looking across gender, Table 2.2 indicates that a large majority of females had never attended school. Among females who had attended school, majority of them left school after completing primary education. While 19 percent of males had matric or higher education before leaving school, only 9 percent females had similar education.

Table 0.2: Completed Years of Education by Gender and Province

	Punjab		Sindh		KPK		Overall	
	Male	Females	Male	Females	Male	Females	Male	Females
Never attended school	40.1	70.1	53	78.2	26.2	73.6	41.5	72.1
Less than primary	10.3	5.3	11	4.3	8	2.8	10.2	4.9
Completed primary	13	9.2	9.8	5.6	6.2	11.4	11.7	8.6
Uncompleted middle	6.9	1.3	1.9	0	9.4	1.5	6.1	1
Completed middle	11.3	4.6	2.6	2.6	8.5	1.6	9.2	3.9
Uncompleted matric	2.5	0.9	0.6	0	7.6	0.1	2.6	0.6
Completed matric	10.3	4.4	10.8	6	23	5.7	11.6	4.9
Higher than matric	5.6	4.3	10.3	3.3	11.1	3.3	7	4
All	100	100	100	100	100	100	100	100

Source: Authors' calculation based on IFPRI/IDS (2012)

Almost all individuals who have completed their education attended government schools. Less than 3 percent attended private schools, and less than 1 percent attended religious schools. A similar pattern is observed across provinces, although religious schools were slightly more popular in Sindh and KPK, with slightly over 1 percent of adults attending these types of schools.

2.3 Current Enrollment of Children

The data indicate that there are 3,574 children between the ages 5-14 years. Of these 54 percent are in the age group 5-9 years (primary school going age), 30 percent are 10-12 years old (middle school going age), and 17 percent are in the age

group 13-14 years (high school going age). Of the total number of children 53 percent are currently in school (61 percent boys and 46 percent girls). Out of total number of enrolled children, 51 percent are in the age group 5-9 years, 34 percent are 10-12 years old, and 19 percent are 13-14 years old.

The overall enrollment rates, however, mask great variation in enrollment at the provincial level. For example, enrollment in KPK is much higher (77 percent) than in Sindh (27 percent). In Sindh 35 percent of the boys of the age group 5-14 years and 20 percent of the girls are enrolled as compared to 54 percent of the boys and 68 percent of the girls in KPK. (see Table 2.3).

Table 0.3: Enrollment Rate among Children between the Ages 5-14 by Gender and Province

Age group	Punjab	Sindh	KPK	Full sample
Boys	69.1	34.6	84.9	60.5
5-9 years	65.2	26.8	82.1	55.1
10-12 years	78.1	49.3	91.5	71.4
13-14 years	63.7	35.5	84.1	58.3
Girls	54.6	19.5	67.9	45.5
5-9 years	56.9	21.0	63.0	45.9
10-12 years	61.4	19.0	77.6	50.0
13-14 years	39.2	12.7	64.7	37.2
Both	62.1	27.3	77.2	53.3
5-9 years	61.2	23.9	73.8	50.7
10-12 years	70.5	34.1	84.4	61.2
13-14 years	50.5	27.0	75.6	48.1

Source: Authors' calculation based on IFPRI/IDS (2012)

2.3.1 GROSS ENROLLMENT RATE AT PRIMARY, AND MIDDLE LEVELS

Table 2.4 reports the gross enrollment at primary (class 1-5), middle (class 6-8), and matric (class 9-10) levels.[3] This table shows an encouraging picture of current enrollment at primary level. Nearly 86 percent children are currently enrolled in the primary level. The gross enrollment rate is 98 percent for boys and 74 percent for girls. Punjab and KPK show a high enrollment rate exceeding 100 percent. This indicates that the children of ages more than 9 years are also attending primary school. A further analysis reveals that nearly 39 percent of the primary school attending children is more than 9 years old (44 percent boys and 33 percent girls) at primary level.

The gross enrollment rate at middle level is almost half of that at primary level, only 41 percent. This means a large number of children do not attend school after primary level. The data reveals that 44 percent children 10-14 years are not currently enrolled; 39 percent fall in the age group 10-12 years and 52 percent are of age group 13-14 years. The provincial disaggregation shows that the enrollment rate at middle level is highest in KPK (69 percent), followed by Punjab (47 percent). This rate is extremely low in Sindh (17 percent). Only 7 percent girls enroll in the primary level.

Table 0.4: Gross Enrollment Rate at Primary and Middle Level

	Punjab	Sindh	KPK	Overall
Gross enrollment at primary level				
Boys	114.5	52.2	135.8	97.6
Girls	91.6	30.8	120.5	74.4
Both	103.4	41.6	129.2	86.4
Gross enrollment at middle level				
Boys	50.6	27.6	74.7	47.7
Girls	42.3	6.5	59.2	33.0
Both	46.8	17.0	68.5	40.9

Source: Authors' calculation based on IFPRI/IDS (2012)

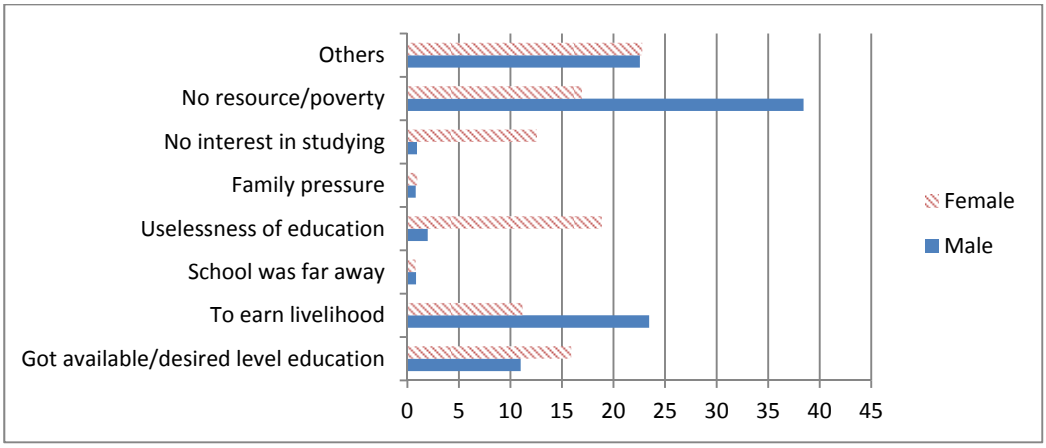
The data reveal that most of the children attend government schools (75 percent). Nearly 23 percent attended private school. Very few children attended schools run by NGOs or religious schools. Among the children of primary school age (5-9 years old), nearly 1 percent dropped out. The proportion of dropouts in the 10-12 age group is 7 percent.

[3] Gross enrollment rate at primary level is defined as the proportion of children attending primary level (classes 1-5) with the children aged 5 - 9 years.

2.4 Reasons of Leaving School

About 13 percent of the individuals who are currently not in school said that they have completed the desired level of education (see Figure 2.5). The remaining 87 percent left school because of different reasons. The most common reason, cited by 31 percent of individuals is 'poverty' followed by 'to earn livelihood'. However, looking across gender one can see the obvious differences. These differences reflect the socio-cultural norms and economic conditions of the households. For example, poverty is the most common cause of leaving school for both males and females. About 38 percent of males and 17 percent of females left school because of poverty. Not taking interest in studies and uselessness of education are the reasons mostly cited by females. To earn livelihood is cited by 23 percent of males and 11 percent of females.

Figure 0.5: Reasons for Leaving School by Gender (percent of individuals not currently in school)



Source: Authors' calculation based on IFPRI/IDS (2012)

One potential explanation for low enrollment and higher dropout rates for females is concerns about security. Of girls aged 11-18 who have never been to school, 46 percent did not have a primary school in the settlement when she was between the ages of 6 and 8 (the crucial period for enrollment decisions), and a similar proportion did not have a primary school within walking distance outside the settlement. For almost half of the girls for whom a primary school was available inside the settlement, respondent said that they were concerned about sending their daughter to school because she was too little and no one could accompany her, while 41 percent were concerned that she could be verbally harassed or physically hurt. Even more respondents expressed concern if the closest primary school for the girl was located outside the settlement: Nearly 68 percent report having concerns related to sending her alone, while 60 percent express concern over her physical security.

Despite having secondary school in the settlement, several girls under the age of 17 years, who attended school in the past, are not going to school. Parents expressed concern about their security. They feared that the girl could be verbally harassed or physically hurt if she were to attend the school. Another reason of not sending girls to school is that the girl has reached puberty and should not be alone in public places. The same security concerns are much greater if the secondary school is located outside the settlement instead of inside.

2.4.1 DISTANCE TO SCHOOL AND COMMON MODE OF TRANSPORT

Most of the children of a community study in the nearby school. The average walking time varies between 17 minutes to 9 minutes. However, children of richer families are generally more likely to travel farther to school. This may be due to the fact that the richest households have their own transport and commuting farther is not a problem for them. The overwhelming majority of children (87 percent) walk to school. This finding is consistent for both genders across provinces. A small but significant number of children from the third and higher quintiles do use a motorcycle or chinchi (a motorcycle rickshaw).

The high proportion of children that walk to school suggests that having a school within walking distance may be crucial in increasing enrollment in schools, especially for females (Alderman, Ozarem, and Paterno 2001; Lloyd, Mete, and Sathar 2005; Burde and Linden 2012). It also indicates that children's safety may be a concern, especially if the school is outside the village. The next section looks at such concerns, especially for female students. Pakistan has to make considerable

efforts to increase enrollment of children in rural areas, but also allocate adequate resources to improve the quality of education and provide an environment that encourages student learning.

Summing Up

This section describes the low levels of literacy and enrollment found in RHPS-2012. The literacy rate among population 10 years and older is 44 percent; 59 percent for males and 30 percent for females. Only 49 percent of individuals have ever attended school. The survey also found low levels of completed education. Nearly 20 percent of individuals were not able to complete primary, 8 percent left school before completing middle, and 3 percent could not complete matric. About 26 percent of individuals were able to complete primary. Nearly 17 percent of individuals completed matric. The proportion of individuals that have more than 10 years of education, including professional education, is only 11 percent. The data show that the enrollment rate among school going children aged 5 to 14 years is 53 percent. However, this aggregate number masks significant variation across gender and province. While school enrollment in 61 percent for boys, it is only 46 percent for girls. It also varies from 77 percent in KPK to 62 percent in Punjab and only 27 percent in Sindh. We also observe that girls have a higher dropout rate than boys. While poverty is cited as the main reason for non-enrollment, many respondents expressed security concerns about sending their daughters to school. Given that most people in rural Pakistan are young, it is crucial for policymakers to invest in education and provide people with necessary skills and appropriate employment opportunities.

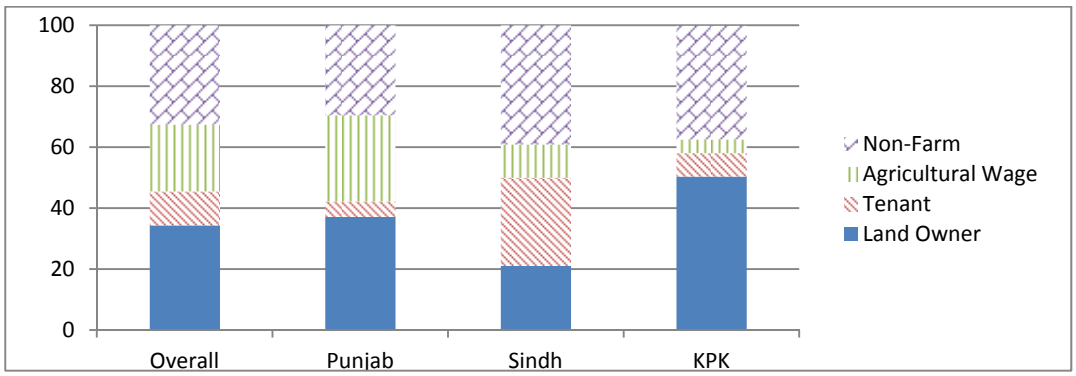
3. EMPLOYMENT AND INCOME

Households can derive income from one or more sources, such as, farming, wages and salaries, non-farm business, pension, remittances, rent, or aid and assistance. However, type of household can be identified on the basis of larger share of earned income. In this section, we first describe the types of households and then we discuss the sources of income.

3.1 Types of Households

In order to understand the main source of income of households, and their access to productive resources, households can be divided into two broad categories: agricultural and non-agricultural households. Agricultural households are farm households who cultivate land, such as owner who cultivate land, tenants who rent-in land on fixed rent, and sharecroppers, who cultivate land on a predefined contract for the division of cost of cultivation and output. Non-farm households include those who depend either on agricultural wage or non-agricultural wages/salaries, and households who have any business enterprise. Based on these definitions, we classify households in four categories: land owners, tenants, agricultural waged labor and rural non-farm households. Households are categorized as land owners if they own and cultivate any amount of agricultural land. Tenant households do not own any land, but rent-in or sharecrop to cultivate land. Agricultural waged labor includes households that have own land and do not cultivate land, but work on other's farms for wages. The remaining households are rural non-farm households.**Error! Reference source not found.**Figure 3.1 shows that in our sample, 34 percent of households own some land, 11 percent cultivate land but own no land, and thus depend on sharecropping and renting land. Nearly 22 percent of households fall in the agricultural waged labor category. The remaining 33 percent of households are non-agricultural households. Individuals in these households are employees in the non-farm sector as agricultural or non-agricultural wage earners, proprietors of enterprises or reliant on other sources, such as pension. These households do not participate in any agricultural activities.

Figure 0.1: Type of Households in Rural Pakistan



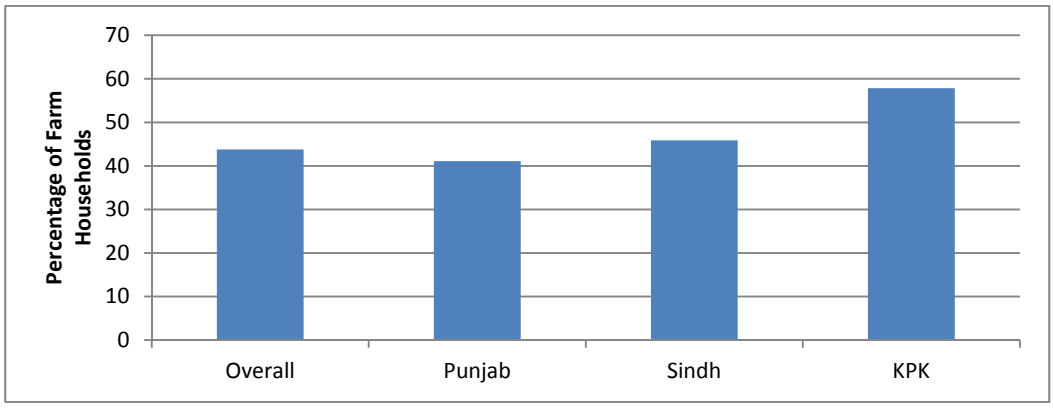
Source: Authors' calculation based on IFPRI/IDS (2012)

Provincial disaggregation shows that in Punjab, 37 percent of households are land owners, as opposed to 50 percent in KPK and only 21 percent in Sindh. Nearly 29 percent of households in Sindh are tenant farmers. Punjab has the largest percentage of households that rely on agricultural waged labor (28 percent), as opposed to 11 percent in Sindh and only 5 percent in Sindh. The percentage of rural non-farm households is 29 percent, 39 percent and 37 percent in Punjab, Sindh and KPK respectively.

3.1.1 FARM HOUSEHOLDS

A household is considered a farm household if it has cultivated agricultural land in the last year. Land owners and tenant farmers that cultivate land are considered farm households. Households that do not cultivate land but have individuals that work on other's farms as employees are not categorized as farm households. The provincial disaggregation shows that of total farm households, 62 percent are in Punjab, 26 percent in Sindh, and 12 percent in KPK. Farm households constitute nearly 41 percent of households in Punjab and 46 percent in Sindh. This proportion is 57 percent in KPK (see Figure 3.2).

Figure 0.2: Percentage of Farm Households



Source: Authors' calculation based on IFPRI/IDS (2012)

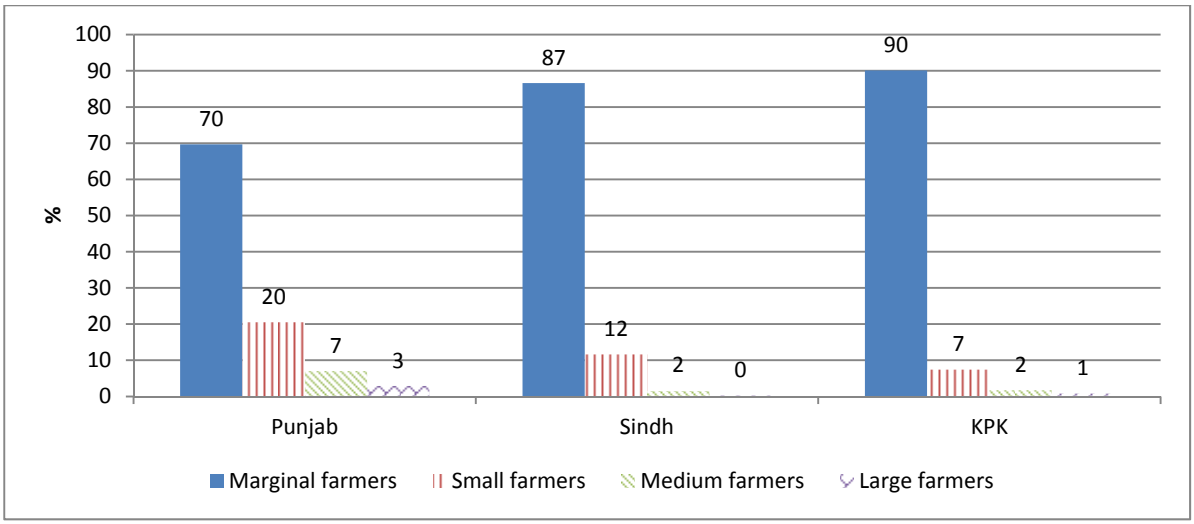
The data show that majority of farm households belong to richest quintile in Punjab and KPK, while in Sindh farm households are not much different across expenditure quintiles.

Farm households by size of farm

In Figure 3.3, farmers are grouped into three categories based on cultivated land and provinces: marginal (cultivate up to 5 acres), small (cultivate up to 12.5 acres but more than 5 acres), medium (cultivated land is greater than 12.5 but less than 25 acres), and large (cultivate more than 25 acres).[4] Most of the farmers (93 percent) cultivate less than 12.5 acres of land; 78 percent are marginal farmers, 16 percent small farmers, 5 percent medium, and only 2 percent are large farmers in the sample of RHPS. The proportions of marginal and small farmers are in line with the farm distribution reported in the Pakistan Census of Agriculture 2010. However, the proportions of medium and large farmers are much lower. This may be due to the fact that most of the large landlords do not operate land. They hire someone to look after the farm matters. The RHPS-2012 did not cover such landlords. Provincial distribution indicates that nearly 90 percent farmers in KPK cultivate less than 5 acres. This proportion is 87 percent in Sindh and 70 percent in Punjab. The proportion of large farmers is extremely low.

[4] This is the standard classification of farm size most generally used in Pakistan.

Figure 0.3: Proportion of Farmers by Size of Farms and Provinces

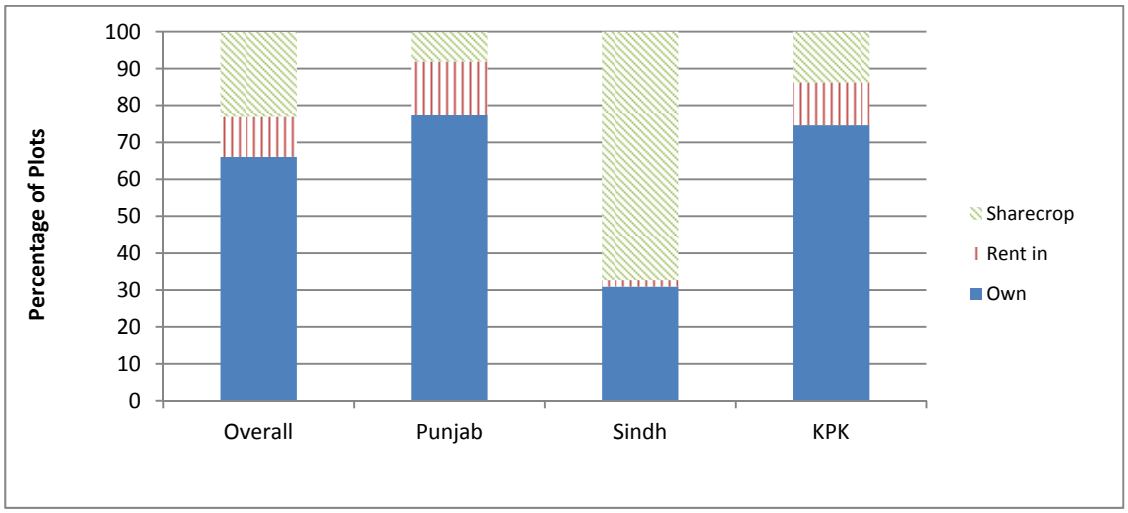


Source: Authors' calculation based on IFPRI/IDS (2012)

Farm households by type of tenure

Farm households can be divided into three categories: owners, who cultivate owned land; tenants, who rent-in land for cultivation; and sharecroppers, who cultivate land under some contract in which the tenant has rights to use the land and provides a share of the output to the landlord. The landlord may or may not provide a share of the inputs to the tenant. Figure 3.4 shows that majority of households are owners (66 percent), followed by sharecroppers (23 percent), and tenants (11 percent). The provincial disaggregation indicates that most households in Punjab and KPK are owners (77 percent and 75 percent respectively), while only 31 percent are owners in Sindh. Most farm households in Sindh are sharecroppers (67 percent).

Figure 0.4: Tenancy Status of Household Managed Plots



Source: Authors' calculation based on IFPRI/IDS (2012)

As expected, more households in the bottom expenditure quintile are sharecroppers compared to higher quintiles.

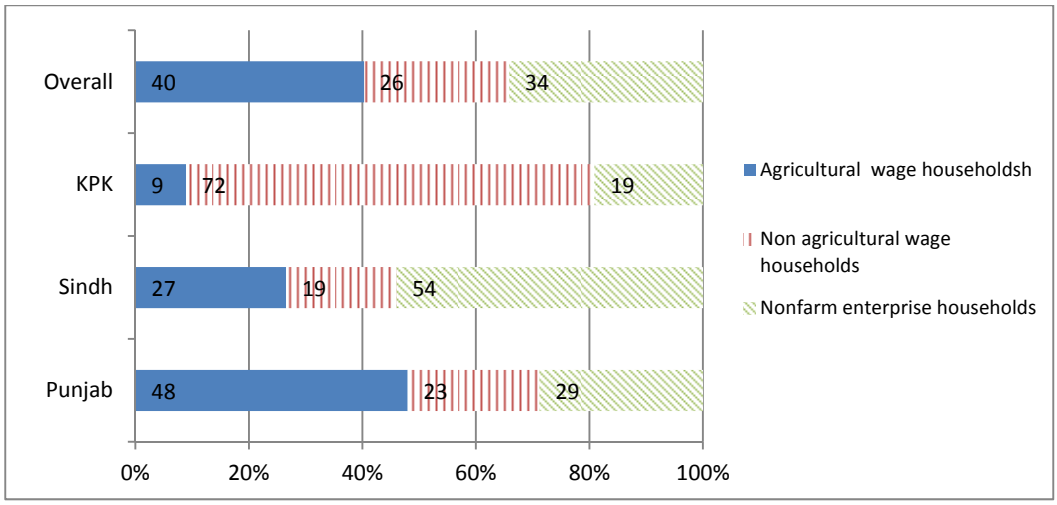
3.2 Non-Farm Households

Non-farm households can be distributed into three categories: i) agricultural wage workers, ii) non-agricultural wage workers, and iii) who derive their income from non-agricultural enterprises. Of 2090 households, 56 percent are identified as non-agricultural households. Nearly 59 percent of households in Punjab are identified as non-agricultural households. This proportion is 54 percent in Sindh, and 42 percent in KPK. However, 70 percent of non-agricultural households are found in Punjab.

The distribution of non-agricultural households by their three categories indicate that 40 percent of total non-agricultural households are agricultural wage workers, followed by non-agricultural enterprise (34 percent), and 26 percent derive their income from non-agricultural wages/salaries.

Nearly half of the non-agricultural households in Punjab consist of agricultural wage workers whereas the proportion of non-agricultural wage workers is highest in KPK and non-agricultural enterprises form 54 percent of total non-agricultural households in Sindh.

Figure 0.5: Distribution of Non-Agricultural Households by Province



Source: Authors' calculation based on IFPRI/IDS (2012)

3.2.1 AGRICULTURAL WAGE WORK

Agricultural wage workers are defined as those who participate in any wage work related to farm operations or livestock including livestock care and production of livestock goods. The RHPS-2012 identified 1,342 farm wage workers in Rabi 2010-11 and 1,065 in Kharif 2011. In addition, 215 individuals participated in the wage work related to livestock. Of these, two-thirds were women. Provincial distribution indicates that three-fourths of these wage workers are located in Punjab. The agricultural wage workers participated in various activities. Some activities are specific to males (e.g., land preparation, fertilizer and pesticide applications) and others are shared by both but mainly performed by females (e.g., post harvest operations). Table 3.1 lists the activities that agricultural wage workers perform on farms. This table shows that of 522 male and 820 female wage workers performed multiple agricultural activities during Rabi 2010-11. Harvesting and post-harvesting activities attract most of the agricultural wage workers. A large majority of both, males and females, participated in these activities in both seasons.

Table 0.1: Participation of Males and Females in Agricultural Wage Work at Farm (% from total)

	Rabi 2010-11		Kharif 2011	
	Male	Female	Male	Female
Land preparation	42.1		55.1	
Planting	34.9	23.7	50.7	49.1
Fertilizer application	34.5		45.2	
Agricultural chemicals application	18.2		23.8	
Irrigation	33.7		47.0	
Weeding	17.0	31.6	30.8	41.9
Pruning (tree crops only)	19.7		23.2	
Harvest & post-harvest operations	90.4	86.8	78.1	81.7
Total wage workers (number)	522	820.0	383	682

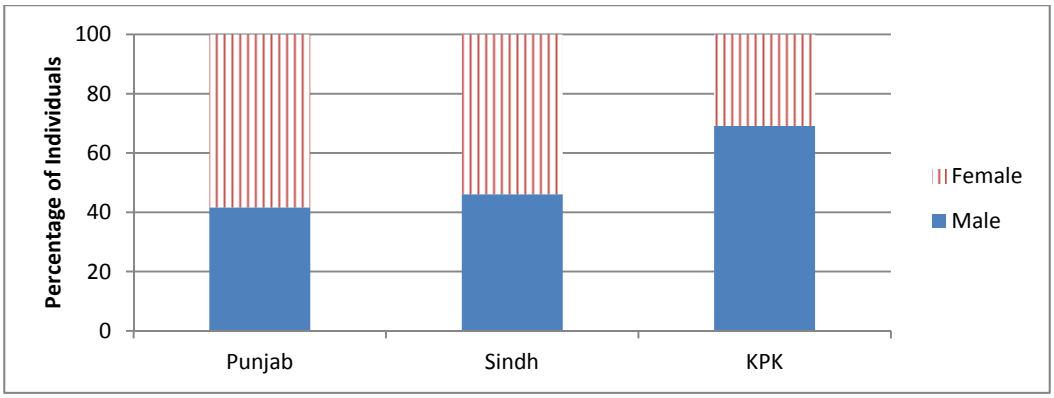
Source: Authors' calculation based on IFPRI/IDS (2012)
Note: Figures are the proportion of wage worker for ith task from total wage workers of gender j. One wage worker may perform multiple activities, therefore total will not sum to 100.

In addition to the work on farm, agricultural wage workers are also hired for livestock care and preparing or selling of livestock products. The RHPS-2012 shows that of 74 male and 144 female wage workers in the survey sample, a majority

worked for taking care of livestock. The proportion of those who worked in the production of livestock products is much lower.

A large number of females are involved in the agricultural wage work, especially during the harvest season. In Punjab, about 58 percent of agricultural laborers are female. While 54 percent of such workers are female in Sindh, only 31 percent of total are female in KPK (see Figure 3.6). This may be due to cultural reasons which restrict the women in KPK to work outside their house.[5]

Figure 0.6: Gender of Agricultural Labor

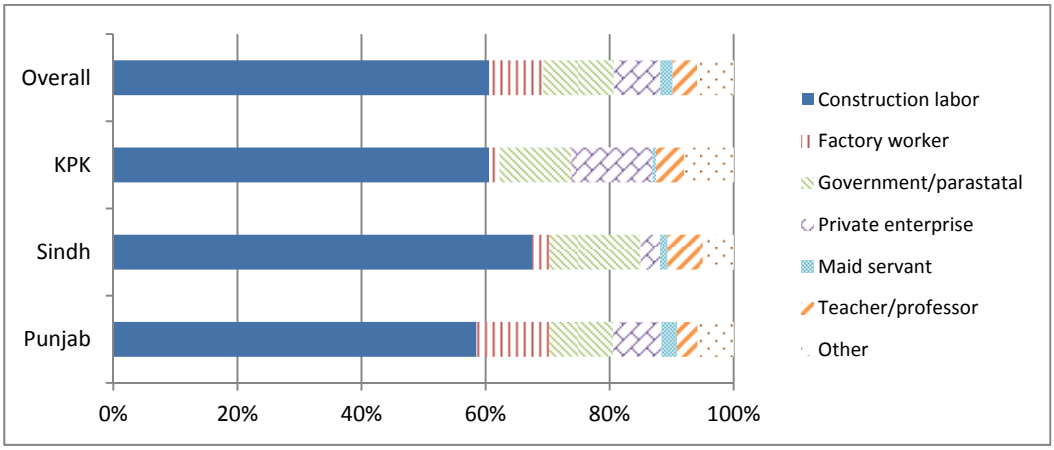


Source: Authors' calculation based on IFPRI/IDS (2012)

3.2.2 NON-AGRICULTURAL WAGE WORK

The most common source of non-agricultural employment is the construction industry, which employs 61 percent of total non-agricultural wage workers, followed by government employees (11 percent), factory workers (9 percent), private sector employees (7 percent), and teachers and professors (4 percent).

Figure 0.7: Non-Agricultural Wage Work



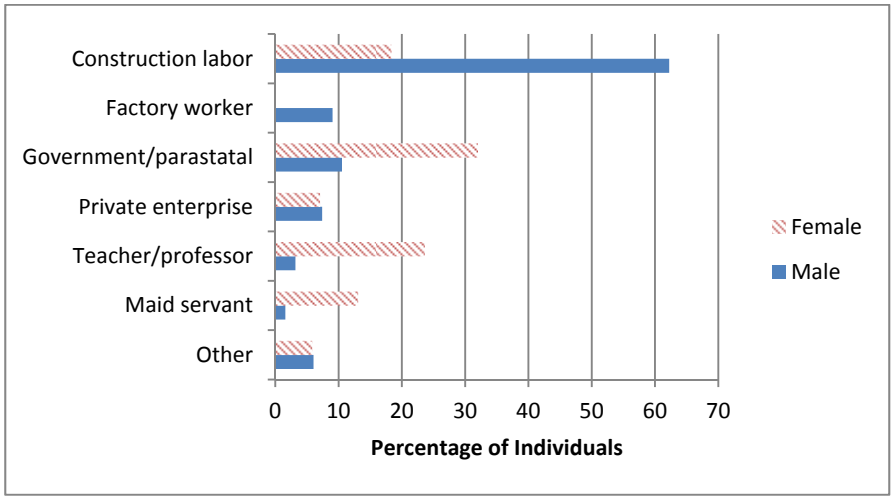
Source: Authors' calculation based on IFPRI/IDS (2012)

The nature of non-agricultural employment also varies by province. In Sindh, 67 percent of individuals rely on construction jobs, compared to 58 and 60 percent in Punjab and KPK respectively. Only 2 percent of individuals in Sindh are employed in private enterprises, as opposed to 8 percent in Punjab and 13 percent in KPK. Across the three provinces, the government organizations employ about ten percent of individuals who have non-agricultural jobs. A higher proportion of individuals are factory workers in Punjab as compared to Sindh and KPK.

[5] The Comprehensive Development Strategy of the government of KPK recognizes that "Most women are subject to economic dependence and are often forced to take on the majority of the manual work of the household. The traditional roles of women have changed little in the last decades" http://www.khyberpakhtunkhwa.gov.pk/Departments/PnD/CDS-2010-17.pdf

The RHPS-2012 survey identified 1,642 individuals as non-agricultural wage workers between the ages of 18-60 years (96 percent males, 4 percent females). This shows the extremely low levels of female participation in non-agricultural employment. Figure 3.8 shows that amongst women who do work in non-agricultural jobs, most of them work in the government sector or work as teacher/professor or maid servant. Nearly 62 percent of non-agricultural male workers are employed as construction labor and 9 percent of non-agricultural employed men work in factories. In many rural areas of Pakistan, both construction and factory jobs are not common for women due to cultural reasons. This may explain the overall low levels of female participation in non-agricultural employment, as females typically do not engage in the most common non-agricultural occupations.

Figure 0.8: Non-Agricultural Occupations in Rural Pakistan by Gender



Source: Authors' calculation based on IFPRI/IDS (2012)

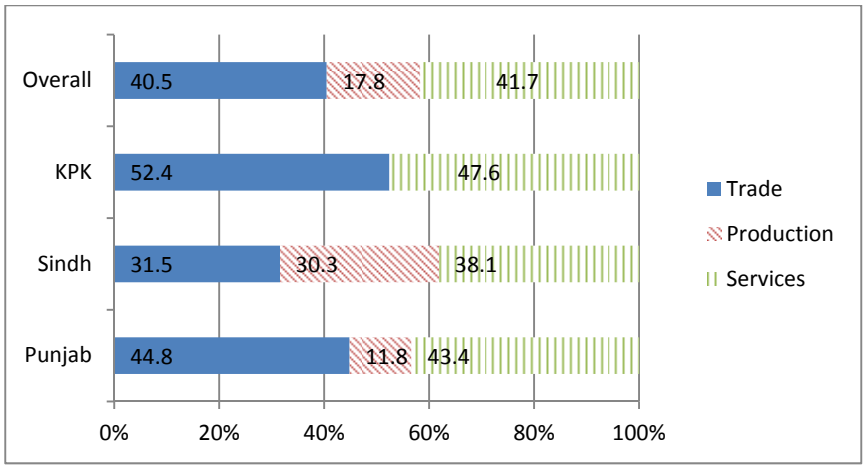
3.2.3 NON-AGRICULTURAL ENTERPRISES

A household is considered to have a non-agricultural enterprise if the main proprietor of the business is a household member. As indicated earlier, 34 percent of non-agricultural households have some kind of non-agricultural enterprise. Of total non-agricultural households in Sindh, 54 percent have a non-agricultural enterprise. This proportion is 29 percent in Punjab, and 19 percent in KPK.

Nature of Non-agricultural enterprises

The enterprises can be grouped into three major categories: i) trade (e.g., shops, restaurants), ii) production (e.g., manufacturing units), and iii) services (health, education, personal, transport, services). Looking at the whole sample, service enterprise dominates (42 percent), followed by trade enterprises (40 percent), and manufacturing enterprises (18 percent). However, provincial disaggregation shows that trade enterprises are more common in Punjab (45 percent) and KPK (52 percent) while Sindh has almost similar distribution of enterprise in three groups. No production unit has been found in KPK. However, many businesses provide a wide range of personal services, such as tailor or cobbler services in this province. Sindh has a large proportion of households engage in handicraft manufacturing that accounts for 30 percent of total enterprises in the province.

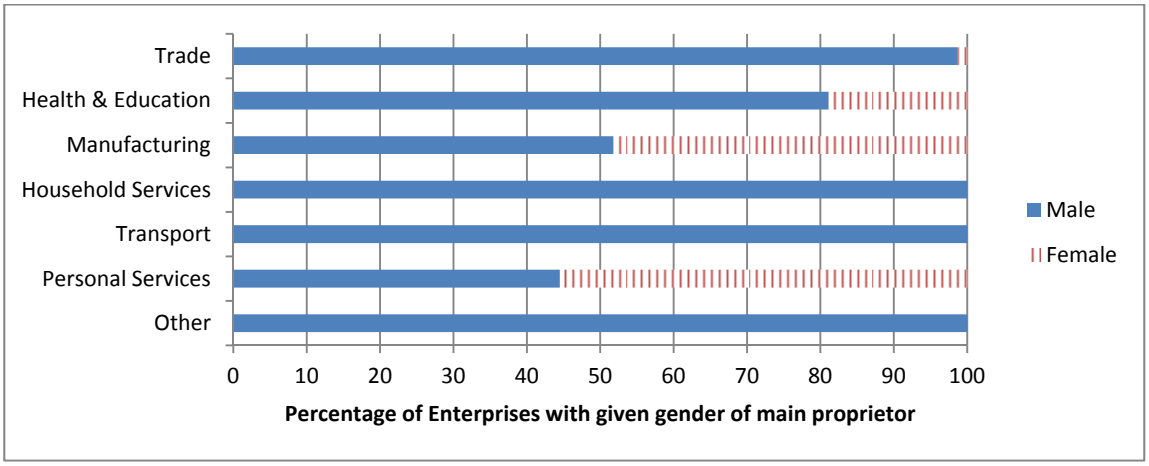
Figure 0.9: Nature of Non-Agricultural Enterprise



Source: Authors' calculation based on IFPRI/IDS (2012)

Females are the main proprietor in 17 percent of household non-agricultural enterprises. Figure 3.10 shows that females are most likely to run businesses that provide personal services or are small-scale manufacturing enterprises. Most businesses in the trade or transport industries are owned by males.

Figure 0.10: Nature of Non-Agricultural Enterprise by Gender



Source: Authors' calculation based on IFPRI/IDS (2012)

3.3 Labor Force Participation Rate

The labor force participation rate is defined as the ratio of the economically active population of age 10 and above to the total population of age 10 years and above. The data of RHPS-2012 shows that labor force participation rate is 35 percent; 44 percent among males and 26 percent among females (see Figure 3.11). Looking across provinces, this figure shows that this rate is highest in Punjab (38 percent), followed by Sindh (31 percent), and KPK (22 percent). Significant gender differences are found across provinces, with the most pronounced difference observed in KPK. Only 3 percent females participate in economic activities in KPK.

Figure 0.10: Labor Force Participation Rates

Source: Authors' calculation based on IFPRI/IDS (2012)

In terms of overall rate of labor force participation, our results are consistent with the findings of the Labour Force Survey 2011. However, we found a higher rate among the females of Punjab and Sindh and extremely low rate among the females of KPK. The comparison is reported in Table 3.2.

Table 0.2: Labor Force Participation Rate: A Comparison with Labor Force Survey-2011

	Male		Female		Both	
	RHPS-2012	LFS-2011	RHPS-2012	LFS-2011	RHPS-2012	LFS-2011
Punjab	45.4	50.1	31.2	24.0	38.4	37.1
Sindh	39.8	51.7	21.3	16.9	30.7	35.5
KPK	40.9	42.0	2.9	11.1	22.4	26.5
Overall	43.7	48.6	26.3	19.4	35.2	34.3

Source: Authors' calculation based on IFPRI/IDS (2012) and Government of Pakistan (2011c)

3.3.1 TIME UTILIZATION BY MALES AND FEMALES

In addition to participation in wage work, females spend considerable time in productive household chores. The RHPS-2012 collects information on the time use by gender. Table 3.3 presents the average working hours per week of rural women in Pakistan. Women are divided into two groups; participating, and non-participating women. Participating women are those also involved in a work to earn income, and non-participating women are housewives who do not participate in any income generating activity. The average hours per week spent on an activity by participating and non-participating women are presented in Table 3.3. This table shows very little difference in the hours spent in the listed activities by type of women. This may be due to the fact that a woman has to perform all household tasks, even if she is also working to earn income for the household. Table 3.3 shows that 'helping and caring children and elderly' is the major activity. On average, women spent 16 hours per week in this activity. Cooking and dish washing are the other major activities for the females of the households. Considering all these activities as labor work can increase the labor force participation rate among women.

Table 0.3: Average Hours Per Week Spent on Household Chores by Participating and Non-Participating Women

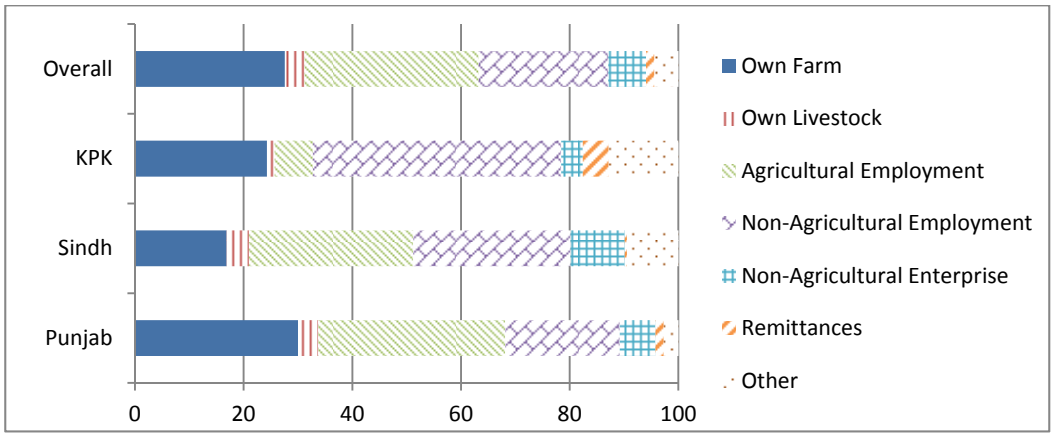
Activities	Non participating women	Participating women	All women
cooking food for home	12.4	10.6	12.2
washing and cleaning utensils	7.9	7.8	7.9
cleaning own house	10.3	9.5	10.2
helping and caring children and elders	16.6	13.3	16.2
collecting water	4.6	4.6	4.7
collecting firewood and fodder	6.8	7.3	7.1
washing and pressing clothes	5.1	5.5	5.2
stitching and craft work for her own house	5.3	5.7	5.4
preparing dung cakes	5.1	5.5	5.2
shopping	1.4	1.4	1.4
house maintenance	0.4	0.4	0.4
household agricultural activities	9.0	7.8	8.9
Total	85.0	79.4	84.7

Source: Authors' calculation based on IFPRI/IDS (2012)

3.4 Sources of Income

Rural Pakistanis earn their livelihood from a variety of sources. While farming and livestock activities are a large source of income, they contribute only 31 percent of all income. One third of all income comes from agricultural employment, which is extremely important for households in lower per capita expenditure quintiles. These are wages earned by individuals working as employees on other's farms. Non-agricultural employment also contributes 24 percent of total income. Household businesses and remittances account for an additional 8 percent of income. Other source of income includes pension and rent from property.

Figure 0.11: Sources of Income in Rural Pakistan



Source: Authors' calculation based on IFPRI/IDS (2012)

The relative importance of these economic activities varies across provinces. While own farm and livestock activities contribute 34 of total income in Punjab, they constitute only 25 percent of total income in KPK and 21 percent in Sindh. Agricultural employment provides about 34 percent of income in Punjab and 30 percent in Sindh, but only 7 percent in KPK. Non-agricultural employment constitutes 21, 29 and 46 percent of total income in Punjab, Sindh and KPK respectively.

The sources of income vary to a large extent across per capita expenditure quintiles. Table 3.4 shows that the bottom quintile gets only 16.8 percent of its income from own farm and livestock. 47.9 percent of income comes from agricultural employment, while another 26.3 percent from non-agricultural income. Since land ownership is low amongst these households, they largely rely on providing labor to farm households to cultivate their land. The median quintile gets a larger share, 28.6 percent, of its income from own farm and livestock activities, 32.2 percent of income from agricultural employment and 25.9 percent from non-agricultural employment. The richest quintile gets 48.2 percent income from own farm and livestock, only 18.4 percent from agricultural employment and 16 percent from non-agricultural employment.

Table 0.4: Source of Income by Per Capita Expenditure Quintiles (percent)

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Own Farm Income	14.9	21.0	24.6	33.2	43.0
Own Livestock Income	1.9	3.6	4.0	3.2	5.2
Agricultural Employment	47.9	36.9	32.2	25.3	18.4
Non-Agricultural Employment	26.3	28.8	25.9	23.7	16.0
Non-Agricultural Enterprise	5.3	4.6	9.3	5.1	9.6
Remittances	0.6	1.4	0.8	3.8	1.6
Other	3.1	3.8	3.3	5.7	6.0

Source: Authors' calculation based on IFPRI/IDS (2012)

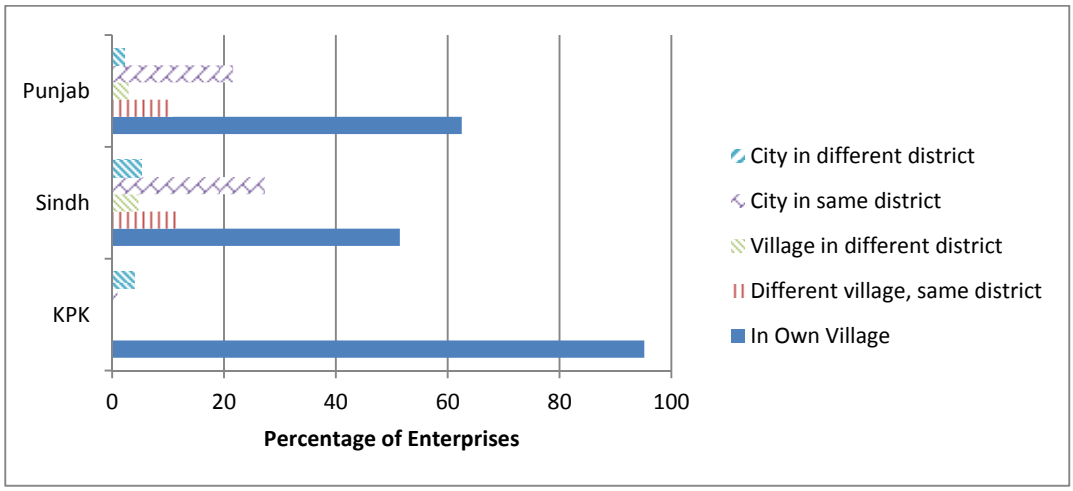
This shows that richer households derive a larger proportion of their income from their own farm and livestock, as opposed to poorer households that rely on employment. Business and remittance income are also higher for richer quintiles. This suggests that access to agricultural land is closely linked with being part of a higher expenditure quintile.

3.5 Connectivity with Markets

The RHPS-2012 asks questions about the location where non-agricultural products are sold. In addition, questions about the location and distance to the place of non-agricultural wage work are asked. The rationale behind these questions is to examine the level of connectivity of rural areas with markets and urban centers.

Figure 3.13 reports the proportion of non-agricultural households by the location where they sell their product. This figure shows that most household-run businesses in KPK sell their product within their own village. This may be because most household enterprises are providing personal services, which is typically a local activity. In Punjab and Sindh, a large proportion of enterprises sell their product in a city in the same district. Manufacturing businesses are common in both provinces, especially Sindh, and it may be easier to have these products transported to nearby cities. In Punjab, better transport infrastructure and the large number of large towns and cities may also make it easier for businesses to sell their product to nearby cities.

Figure 0.12: Location where Non-Agricultural Products are Sold

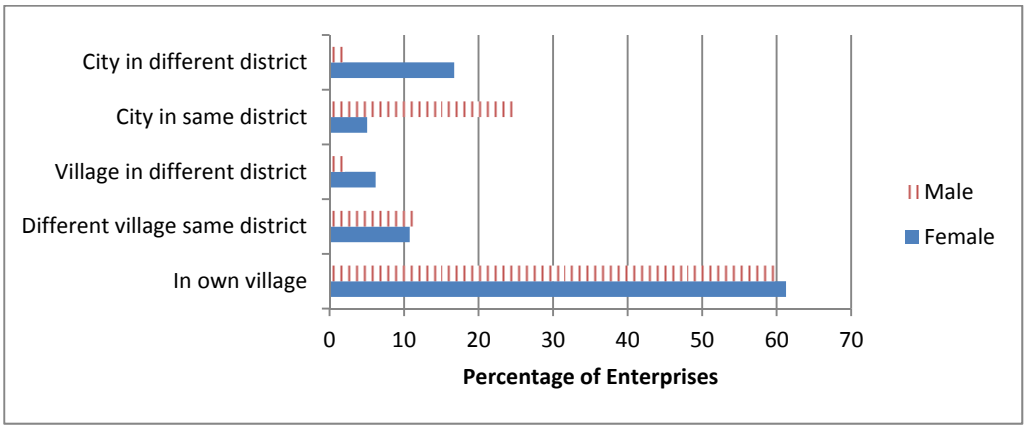


Source: Authors' calculation based on IFPRI/IDS (2012)

Improving rural-urban linkages for these businesses may help households increase their income. Whether this can have any major impact in reducing poverty is questionable. For example, in KPK only 8 percent of households have non-agricultural enterprises and most of them provide personal services near the village. Since very few household businesses sell tradable goods, better access to urban markets is unlikely to substantially increase income of the households. In Sindh, such a strategy may be more appropriate. The average profit of a non-agricultural enterprise in Sindh is about Rs. 50,000. Nearly one-third of all rural households in Sindh have a household enterprise, and about 30 percent of them sell manufactured goods, which are mostly tradable. Other enterprises may also produce goods that can be sold in urban markets at a higher price. Thus, a large proportion of households in Sindh could potentially gain from better backward and forward linkages. In the education section, we saw the low levels of literacy and education of females in Sindh. Policies that help increase business profits, and in-turn household income, in rural Sindh may also help increase female empowerment.

Most female run enterprises sell their product within their village. Nearly one-quarter of male owned businesses, as opposed to 5 percent of female owned businesses, sell their product in a city within the same district. It is interesting to note that 16.7 percent female owned businesses, as opposed to 2 percent of male owned businesses, sell their product in a city outside their district. Most of these female owned businesses are handicraft enterprises in Sindh.

Figure 0.13: Location of Sales by Gender of Proprietor

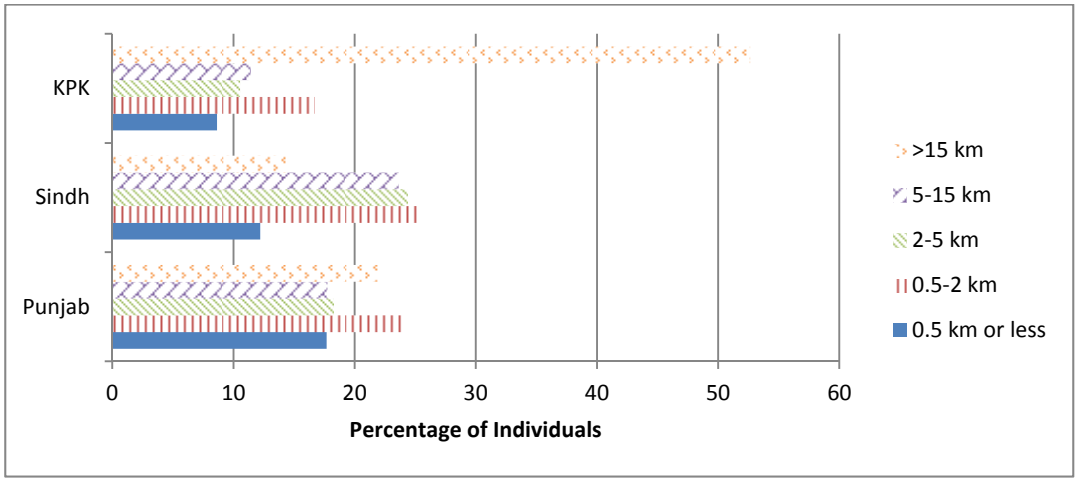


Source: Authors' calculation based on IFPRI/IDS (2012)

Geographic mobility of labor seems to be highest in KPK, and slightly higher in Punjab compared to Sindh. In KPK, 66 percent non-agricultural employees work in urban areas, as compared to 54 percent in Sindh and 44 percent in Punjab. Nearly 58 percent of individuals employed in the non-agricultural sector in KPK travel more than 15 km for work. This number is much lower for Punjab (25 percent) and Sindh (21 percent). In all three provinces, the majority of individuals travelling more than 15 km for their job are working in urban areas. Typically, they earn higher wages working in urban areas compared to rural areas.

About 45 percent of households in Punjab work at a distance of 2 km or less from home, as opposed to 42 percent of households in Sindh and only 20 percent in KPK. This may be due to the economic opportunities around the village; the more prosperous Punjab might have more non-agricultural jobs near the village as compared to Sindh and KPK.

Figure 0.14: Distance to Work by Province



Source: Authors' calculation based on IFPRI/IDS (2012)

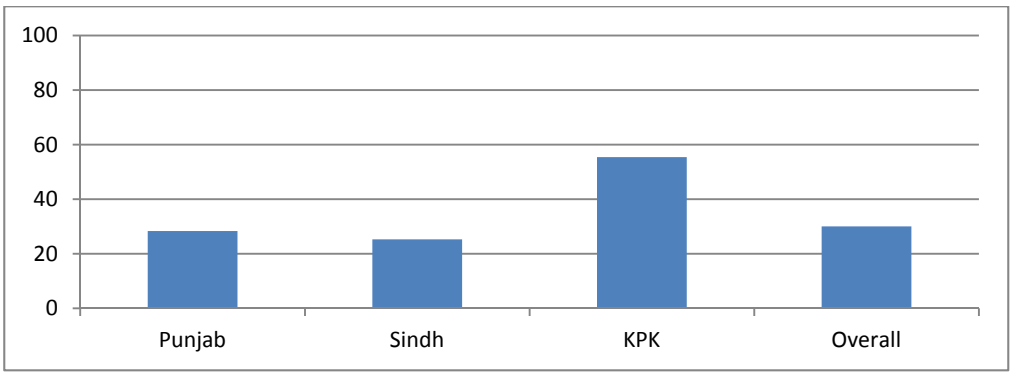
Individuals in higher expenditure quintiles seem more likely to travel more than 15km for work. However, it is difficult to say whether individuals in higher expenditure quintiles are more enterprising and hence more willing to travel long distances, or if they are richer because they travel long distances for jobs that pay better. The proportion of individuals working at a distance of 0.5km or less from home does not seem to have an obvious relationship with expenditure quintile. This may be because it simply depends on the opportunities available in the village the individuals reside in.

3.6 Credit

Households may require credit to smooth consumption over a period of time, or to make longer term investments. Overall, nearly one in three households had attempted to take a loan over the past year. This proportion varies greatly by province. In KPK, 55 percent of households had attempted to take a loan in the last 12 months, as opposed to 28 percent of households in Punjab and 25 percent in Sindh.

In most developing countries, rural financial markets are not well developed and people mainly rely on informal sources, such as local moneylenders, friends and relatives, for loans and credit (Besley 1994; Irfan et al. 1999). In rural Pakistan, relatives and friends are the most common source of credit across the three provinces, followed by Aarthi/Beopari/Traders.

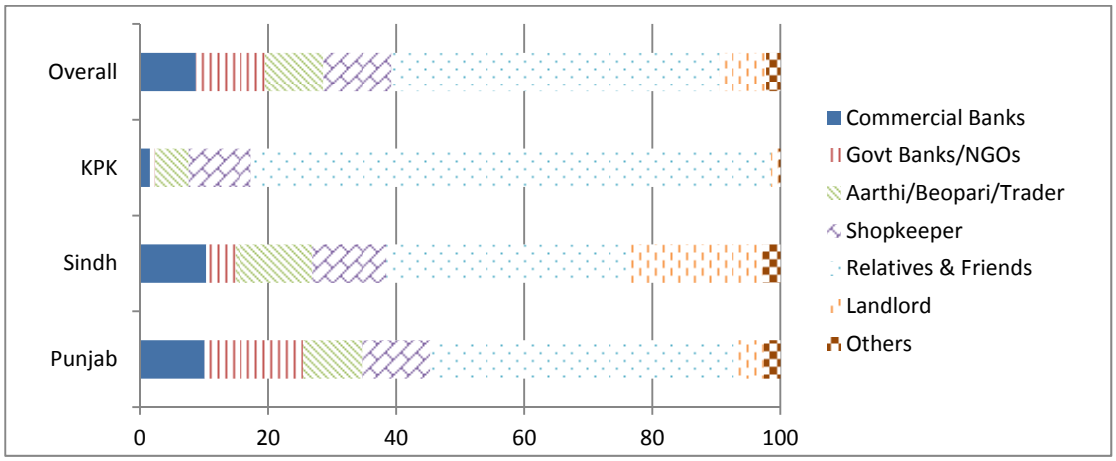
Figure 0.15: Percentage of Households that Tried to Take a Loan in the Last Year



Source: Authors' calculation based on IFPRI/IDS (2012)

In Punjab and Sindh, a wide variety of credit sources are used. Relatives and friends provided 47 percent of the loans in Punjab, and 38 percent in Sindh. Aarthi/Beopari/Traders, who are commission agents and traders, are an important source of credit. They are more commonly used in Punjab, while landlords represent a large proportion (21 percent) of loans in Sindh.

Figure 0.16: Sources of Credit



Source: Authors' calculation based on IFPRI/IDS (2012)

In KPK, 81 percent of loans are provided by relatives and friends. Commission agents and traders are a less important source of loans compared to Punjab and Sindh. Shopkeepers provide an important source of credit across the provinces.

Commercial banks represent 10 percent of loans in Punjab and Sindh, but less than 1 percent of the loans in KPK. ZTBL, NGOs and Microfinance institutions provide 15 percent loans in Punjab, 5 percent in Sindh and only 0.8 percent loans in KPK. While 25 percent of loans in Punjab and 15 percent in Sindh come from formal sources, only about 2 percent loans in KPK come from these sources. Overall, only 1 percent loan requests were rejected. These were mostly attempts to get credit from formal sources or commission agents.

Summing Up

We find that there are more rural nonfarm households than farm households in rural Pakistan. Households in rural areas earn their livelihood from a wide range of activities. While 44 percent of households cultivated agricultural land in the past year, 22 percent earned their income from agricultural wage labor, 19 percent from non-agricultural enterprise and 15 percent from non-agricultural waged employment. Land ownership is considerably greater in higher per capita expenditure quintiles, while households in lower expenditure quintiles rely heavily on agricultural labor for earning their livelihood. A common occupation for non-agricultural workers is construction labor. Across the three provinces, shops are the most common enterprise.

The labor force participation rate among females is extremely low. While the overall labor force participation rate is 35.2 percent, it is higher for males (43.7 percent) compared to females (26.3 percent). Female participation in agricultural waged labor is high in Punjab and Sindh; 58 percent of such workers in Punjab and 54 percent in Sindh are female. In KPK, only 31 percent of agricultural waged laborers are female. Female participation in non-agricultural labor is extremely low; only 4 percent of females between the ages of 18-60 had worked as non-agricultural employees in the past year.

4. HOUSEHOLD CONSUMPTION EXPENDITURE

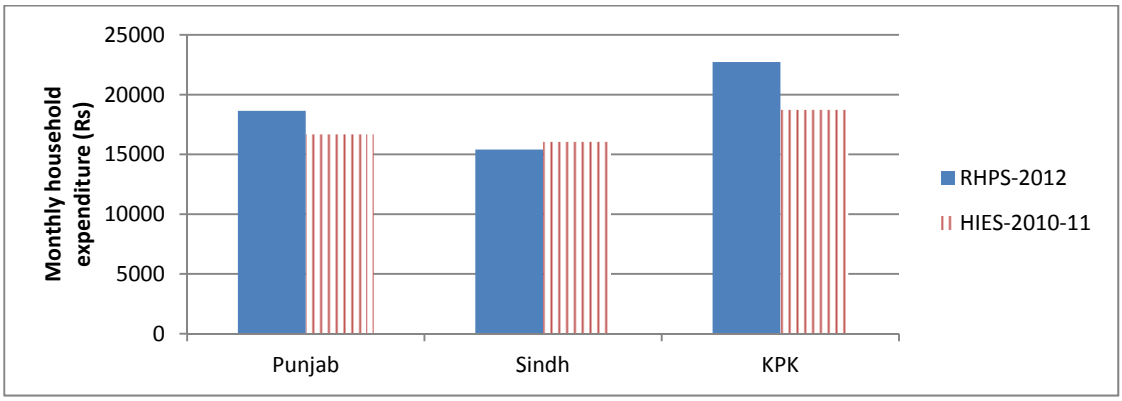
Household income and expenditure statistics serve as a major indicator of economic conditions and the economic wellbeing of households in a society. The conceptual and measurement advantages of using expenditure rather than income are well known. Since households adopt several measures to smooth out their consumption over time, consumption expenditure is considered a relatively better measure of living standards. Therefore the information on consumption expenditure is useful to estimate poverty and inequality in a country.

The RHPS-2012 collected very detailed data on household consumption expenditure. This includes detail on the consumption of food items, expenditure on clothing, footwear, housing, utilities, transport and communication, recreation, education, health and medicine. In view of the possibility that a household may consume home produced items, or they may receive in-kind income, we collected data not only for the purchases that households made but also asked the quantities consumed and money value of the items that are consumed but not purchased. This section presents consumption patterns of rural households by examining their consumption expenditures.

4.1 Average Monthly Household Expenditure

The RHPS-2012 found that monthly household expenditure in rural Pakistan is Rs. 18,930; Rs. 18,651 in Punjab, Rs. 15,408 in Sindh, and Rs. 22,729 in KPK. The data show that the households in KPK spend more than the households in Punjab and Sindh. Comparing with HIES-2010-11, our results show a higher value of monthly household expenditure in Punjab and KPK and lower in Sindh. However, in terms of provincial share in total consumption expenditure, our results are consistent with the findings of HIES-2010-11 (see Figure 4.1).

Figure 4.1: Average Monthly Household Expenditure: Comparison of RHPS-2012 and HIES-2010-11

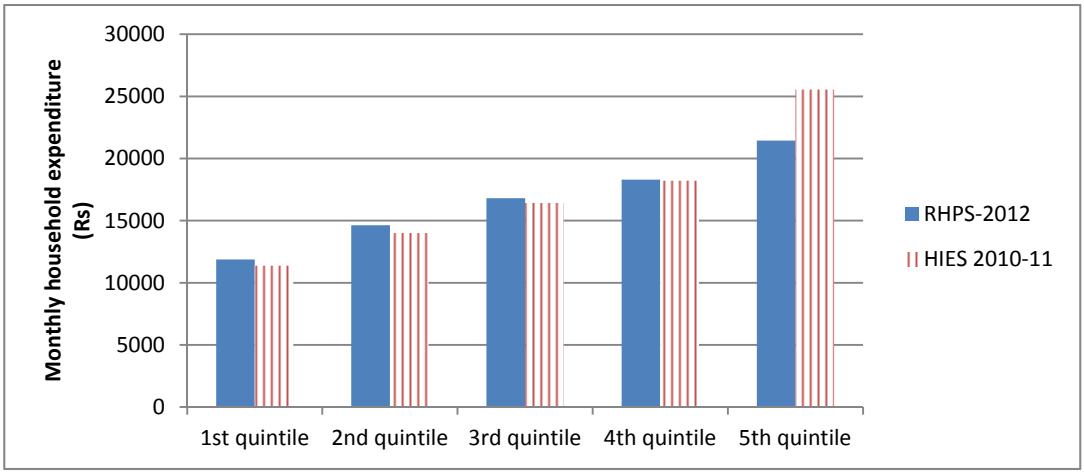


Source: Authors' calculation based on IFPRI/IDS (2012) and Government of Pakistan (2011b)

Looking across per capita expenditure quintiles, the data of RHPS-2012 show that the monthly expenditure of households in the richest quintile is twice as much as the households in the poorest quintile. The average monthly expenditure of

households in the richest quintile is Rs. 21,441 per month compared with Rs. 11,881 per month by the households in poorest quintile (see Figure 4.2). These results are in line with the results of HIES 2010-11 for all quintiles with the exception of richest quintile. The average household expenditure in this quintile is much higher than that is observed with the RHPS-2012. Using the data of HIES-2010-11, the expenditure of households in 5th quintile is found 40 percent higher than those in 4th quintile.

Figure 4.2: Average Monthly Household Expenditure by Quintile: Comparison of RHPS-2012 and HIES-2010-11

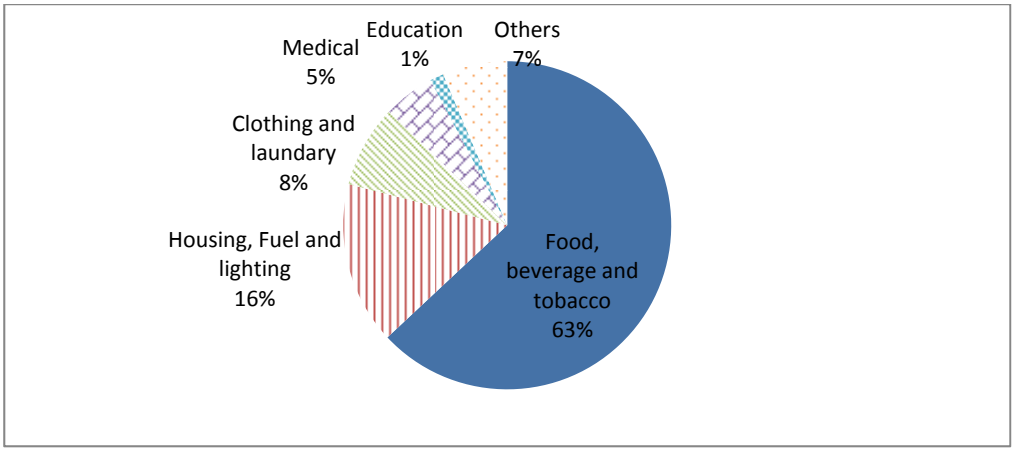


Source: Authors' calculation based on IFPRI/IDS (2012) and Government of Pakistan (2011b)

4.2 Major Expenditure Heads

The data show that rural households spend nearly three-fourths of total expenditure on food and housing (see Figure 4.3). The share of expenditure on food beverages, and tobacco is 63 percent and 16 percent is spent on housing, and fuel and lighting. Another 12 percent are spent on medical, transport and communication, recreation and entertainment, etc., and very little is left for education (only 1 percent).

Figure 4.3: Major Expenditure Heads



Source: Authors' calculation based on IFPRI/IDS (2012)

4.2.1 VARIATIONS IN CONSUMPTION ACROSS PROVINCES

The distribution of household expenditure by commodity groups across provinces is presented in Table 4.1. A fairly large variation in expenditure patterns is observed across the three provinces. For example, in Punjab, 60 percent of consumption expenditure is on food, beverages and tobacco. This share is similar in KPK (57.5 percent) but much higher in Sindh (73.6 percent). About 17 percent of expenditure in Punjab, 10 percent in Sindh and 23 percent in KPK is incurred on housing, and fuel and lighting. Across the three provinces, these are the two largest expenditure groups. Medical expenses constitute 5.4, 4.7 and 4.3 percent of total expenditure in Punjab, Sindh and KPK, respectively. Apparel, textile and footwear are also

respectively 4-5 percent of total expenditure across the three provinces. Shares of education expenditures are extremely low in all three provinces; only 1.5 percent in Punjab, 0.4 percent in Sindh and 2.3 percent in KPK.

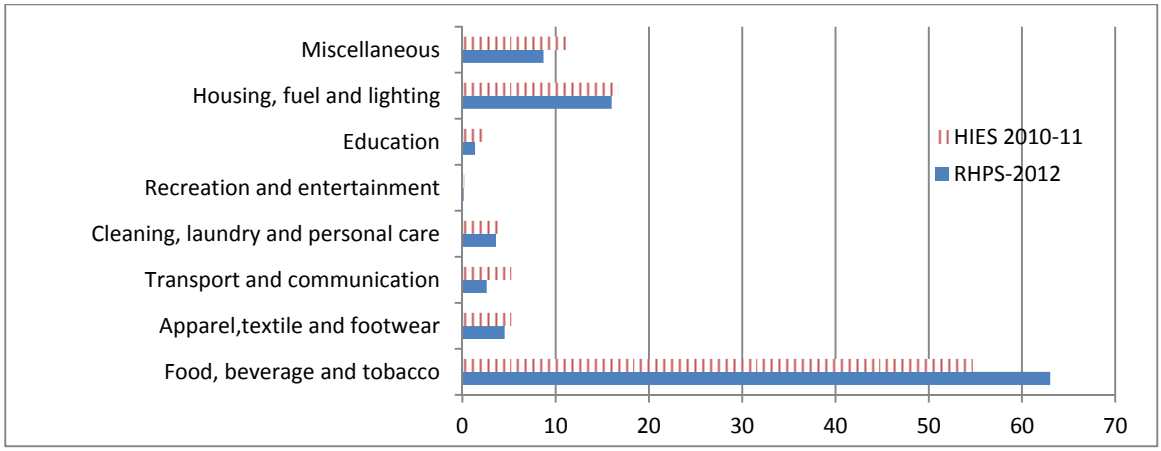
Table 4.1: Share of Expenditure on Different Commodity Groups in Total Household Expenditure by Province (percent)

Commodity Group	Punjab	Sindh	KPK
Food, beverage and tobacco	60.41	73.57	57.54
Apparel, textile and footwear	4.66	4.09	4.76
Transport and communication	2.78	1.66	3.37
Cleaning, laundry and personal appearance	3.48	4.34	3.03
Recreation and entertainment	0.17	0.06	0.13
Housing, fuel and lighting	16.81	9.84	22.68
Medical	5.35	4.69	4.28
Education	1.51	0.40	2.32
Miscellaneous	4.84	1.36	1.88

Source: Authors' calculation based on IFPRI/IDS (2012)

These results are consistent with the findings of HIES-2010-11. A large proportion of total expenditure is spent on food and housing. The share of food expenditure in RHPS-2012 appeared much (8 percentage points) higher than that is observed in HIES-2010-11 (see Figure 4.4). A similar pattern has been found across provinces.

Figure 4.4: Share of Expenditure on Different Commodity Groups in Total Household Expenditure: Comparison of RHPS-2012 and HIES-2010-11 (percent)



Source: Authors' calculation based on IFPRI/IDS (2012) and Government of Pakistan (2011b)

4.2.2 VARIATIONS IN CONSUMPTION PATTERN ACROSS EXPENDITURE QUINTILE

The expenditure by commodity groups varies across per capita expenditure quintiles (see Table 4.2). Food, beverages and tobacco constitute 67 percent of total expenditure for the lowest quintile, and 62 percent for the highest quintile. Expenditure shares of apparel, textile and footwear also generally lower in higher expenditure quintiles. Housing, and fuel and lighting represent 14 percent expenditure in lowest per capita expenditure quintile, 16 percent in median quintile and 17 percent in highest quintile. Medical expenses shares do not have an obvious relationship with expenditure quintiles. Housing improvement expenditure rises with expenditure quintiles. This may be because households in lower expenditure quintiles do not have enough resources for such expenses.

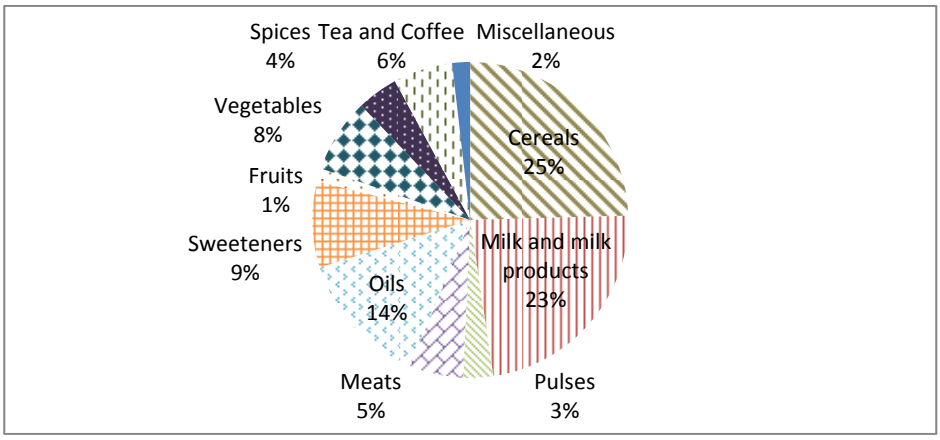
Table 4.2: Share of Expenditure on Different Commodity Groups in Total Household Expenditure by Per Capita Expenditure Quintile (percent)

Commodity Group	Quintile				
	1	2	3	4	5
Food, beverage and tobacco	66.93	64.35	62.50	61.14	62.05
Apparel, textile and footwear	5.16	4.45	4.89	4.55	4.02
Transport and communication	2.26	2.39	2.81	2.91	2.54
Cleaning, laundry and personal appearance	4.26	4.16	3.74	3.48	2.93
Recreation and entertainment	0.11	0.07	0.15	0.17	0.15
Housing, fuel and lighting	13.72	15.04	15.69	16.86	17.38
Medical	4.50	5.39	5.31	5.09	4.92
Education	0.88	1.26	1.50	1.62	1.39
Miscellaneous	2.20	2.89	3.40	4.19	4.64

4.3 Household Expenditure on Food

The data of RHPS-2012 shows that households spend half of their food expenditure on cereals, and milk and milk products (see Figure 4.5). Cereals account for 25 percent and the share of milk and milk products is about 23 percent. Another 23 percent is spent on cooking oil and ghee, and sweeteners. The share of vegetables is 8 percent and fruits account for only 1 percent.

Figure 4.5: Percentage Share of Different Food Items in Total Food Expenditure



Source: Authors' calculation based on IFPRI/IDS (2012)

The data presented in Table 4.3 show some provincial variation in expenditure shares of food items. For example, households spend one quarter of their food expenditure on cereals and one-fifth on milk and milk products. However, the share of milk and milk products (26 percent) is higher than the share of cereals (23 percent) in Punjab. Cooking oils and ghee are important food items in all three provinces with a share of 15 percent in Punjab, 12 percent in Sindh and 12 percent in KPK. This table shows a higher consumption of tea and meat in Sindh as compared to other two provinces. Tea constitutes 11 percent in Sindh compared with 4 percent in Punjab and 6 percent in KPK. Meat represents a greater share of food expenditures in Sindh (7 percent) compared to Punjab and KPK (5 percent and 6 percent respectively). This is mainly because of consumption of fish. While fish constitutes less than 0.2 percent of food expenditure in Punjab and KPK, it is 2.1 percent of food expenditure in Sindh. Table 4.3 shows a higher share of vegetables in Sindh and KPK (9 percent each) as compared to 7 percent in Punjab.

Table 4.3: Percentage Share of Different Food Items in Total Food Expenditure by Province

	Punjab	Sindh	KPK	Overall
Cereals	23.06	26.33	28.20	24.57
Wheat and wheat flour	19.91	21.48	23.31	20.75
Rice and rice flour	3.01	4.83	4.05	3.62
Other cereals	0.14	0.03	0.85	0.20
Milk and milk products	25.81	18.76	19.15	23.10
Milk (Fresh and powder)	20.07	16.59	17.23	18.79
Milk Products	5.73	2.16	1.91	4.31
Pulses	2.67	3.04	5.07	3.07
Meats	4.66	7.44	5.45	5.50
Oils	14.95	12.26	12.15	13.88
Sweeteners	8.94	8.37	9.21	8.82
Fruits	1.51	0.86	1.50	1.33
Vegetables	6.84	8.88	8.56	7.60
Spices	5.33	2.50	2.39	4.21
Tea and Coffee	4.26	10.54	5.53	6.09
Miscellaneous	1.98	1.04	2.79	1.83

Source: Authors' calculation based on IFPRI/IDS (2012)

In terms of relative shares of cereals and milk and milk products, the results of RHPS-2012 are different from the HIES 2010-11 data. The RHPS-2012 observed a higher share of cereals than the milk and milk products with the exception of Punjab, whereas HIES-2010-11 found a higher share of milk and milk products than cereals in Punjab and Sindh.

The share of expenditure on food items in total food expenditure across per capita expenditure quintile is presented in Table 4.4. This table shows that the share of cereal expenditure declines as we go from bottom to higher quintile. A difference of 9 percentage points is observed between the households of lowest and highest quintiles. Similar trend has been observed for cooking oil, pulses and vegetables. While the lowest per capita expenditure quintile allocates 28 percent of food expenditure on cereals and 16 percent on cooking oil/ghee, the shares of these two food items are only 19 percent and 12 percent in the highest expenditure quintile.

The data reported in Table 4.4 indicates a positive relationship between the share of milk and milk products and per capita expenditure quintiles. The households of highest quintile spend 27 percent higher on milk and milk products than those in lowest expenditure quintile. Meats, fruits, spices, tea and coffee show the similar trend.

Table 4.4: Percentage Share of Different Food Items in Total Food Expenditure by Per Capita Expenditure Quintile

	Qunitiles				
	1	2	3	4	5
Cereals	28.18	27.56	26.20	24.60	19.33
Wheat and wheat flour	24.81	23.31	22.28	20.50	15.82
Rice and rice flour	3.26	4.09	3.67	3.81	3.34
Other cereals	0.11	0.15	0.25	0.29	0.17
Milk and milk products	19.86	21.26	22.71	24.25	25.56
Milk Products	1.71	2.25	3.59	3.97	7.69
Milk (Fresh and powder)	18.14	18.85	19.00	20.24	17.84
Other milk products	0.01	0.16	0.12	0.04	0.02
Pulses	3.39	3.22	3.33	3.04	2.60
Meats	4.15	5.23	4.59	5.95	6.76
Oils	15.91	14.23	14.22	14.08	12.10
Sweeteners	9.09	8.53	8.77	7.72	9.77
Fruits	0.75	1.11	1.29	1.52	1.70
Vegetables	9.01	8.77	7.82	7.53	5.91
Spices	3.54	3.55	3.47	3.31	6.28
Tea and Coffee	4.99	5.26	6.00	6.05	7.34
Miscellaneous	1.16	1.29	1.59	1.95	2.65

Source: Authors' calculation based on IFPRI/IDS (2012)

Summing Up

Overall, about three-fourths of household expenditure is spent on food and housing. There is considerable variation in consumption patterns across provinces. In Sindh, nearly 74 percent of expenditure is allocated to food, beverages and

tobacco, as compared to 60.4 percent in Punjab and 57.5 percent in KPK. In KPK, households dedicate a much larger share of total expenditure on housing, fuel and lighting (22.7 percent), compared to Punjab (16.8 percent) and Sindh (9.8 percent). Education is 2.32 percent of total expenditure in KPK, 1.51 percent in Punjab and only 0.4 percent in Sindh.

We also see that households in lower expenditure quintiles allocate a larger share of total expenditure on basic commodities such as food and clothing compared to household in higher expenditure quintiles. Similarly, households in lower expenditure quintiles have a larger share of expenditure on cereals and pulses, and lower share on meat, compared to households in higher expenditure quintiles.

5. HOUSING

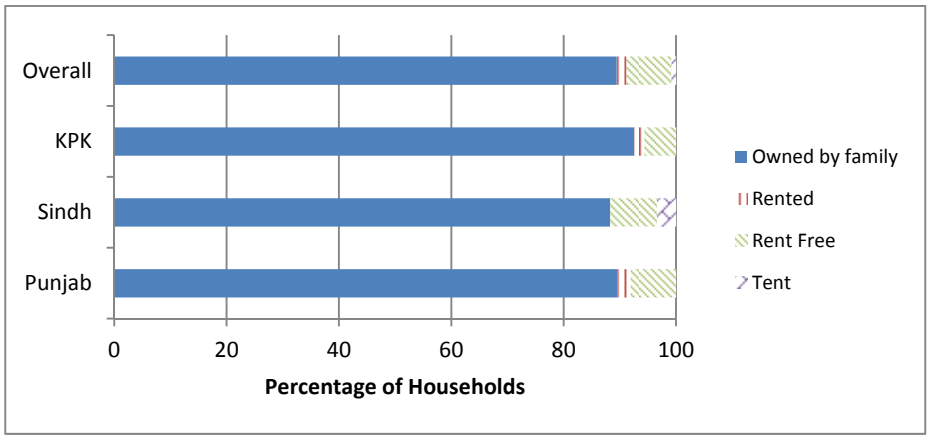
The quality of housing is an important determinant of standard of living. Poor housing can lead to many health problems, and is associated with infectious diseases (such as tuberculosis), stress and depression (World Health Organization 2012). Thus, it is important to analyze the type of dwellings Pakistanis live in.

5.1 Type of Tenure of House

Most households in rural Pakistan live in dwellings owned by the family. Figure 5.1 shows that in each province, nearly 90 percent of households live in houses that they own. 8 percent of households in Punjab and Sindh, and 6 percent in KPK, live in rent-free accommodation. These may be owned by their employer (for example a government organization) or landlord, and are provided to them free of cost. Overall, 8 percent households live in rent-free accommodation.

In rural areas of Pakistan, renting a house is not very common. Only 2 percent of households in Punjab and KPK live in rented houses. None of the households surveyed in Sindh lived in a rented house. We find a small proportion of household in Sindh living in tents. These are mostly households that were affected by the floods in 2010 and/or 2011.

Figure 0.1: Tenure Type of House

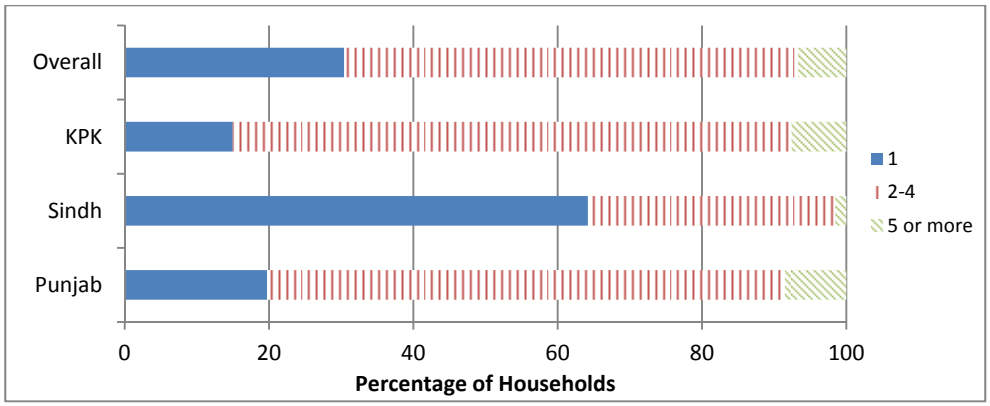


Source: Authors' calculation based on IFPRI/IDS (2012)

5.2 Number of Rooms in House

The data suggest that households in Punjab and KPK live in larger dwellings than households in Sindh. In Punjab and KPK, only 20 and 15 percent of households respectively live in one-room households, as opposed to 64 percent of households in Sindh. In Punjab and KPK, nearly three-fourths of all households have 2-4 rooms in their house. In Sindh, only 34 percent households have 2-4 rooms in the dwelling. Overall, 63 percent households live in a dwelling with 2-4 rooms.

Figure 0.1: Number of Rooms in House

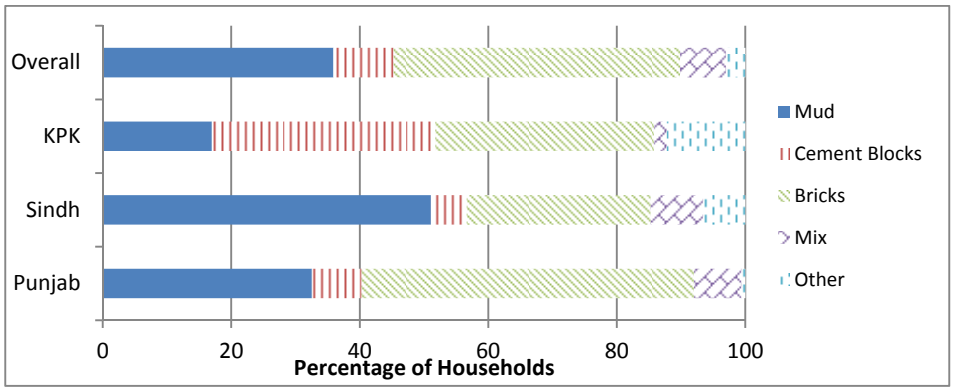


Source: Authors' calculation based on IFPRI/IDS (2012)

5.3 Material Used in Construction of House

A variety of materials are used in construction of dwellings that households live in. Overall, most houses have brick walls (45 percent), followed by mud walls (36 percent). There is considerable variation in these materials across the provinces. 48 percent of households in Punjab and 45 percent in KPK, as opposed to 26 percent households in Sindh, live in dwellings with brick walls. In Sindh, 54 percent of households live in dwellings that have mud walls. This number is 39 percent in Punjab but only 9 percent in KPK. Cement blocks are also commonly used in walls of houses in KPK.

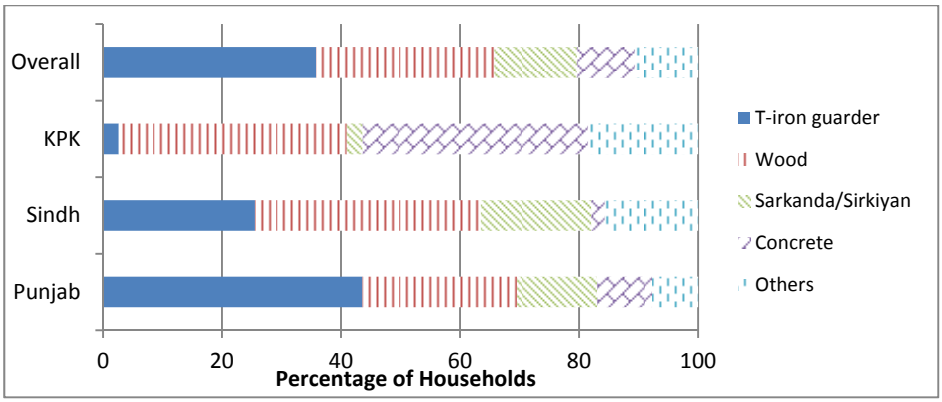
Figure 0.2: Material Used for Walls of House



Source: Authors' calculation based on IFPRI/IDS (2012)

The material used in the roof of houses varies greatly by province. T-iron guarder is predominantly used in Punjab, while concrete and wood roofs are generally used in KPK. Wood is fairly common in Sindh. Sarkanda/Sirkiyan roofs are also common in Punjab and Sindh. These are roofs made of tree or crop leaves. Overall, roofs are mostly made of T-iron guarder (36 percent) and wood (30 percent).

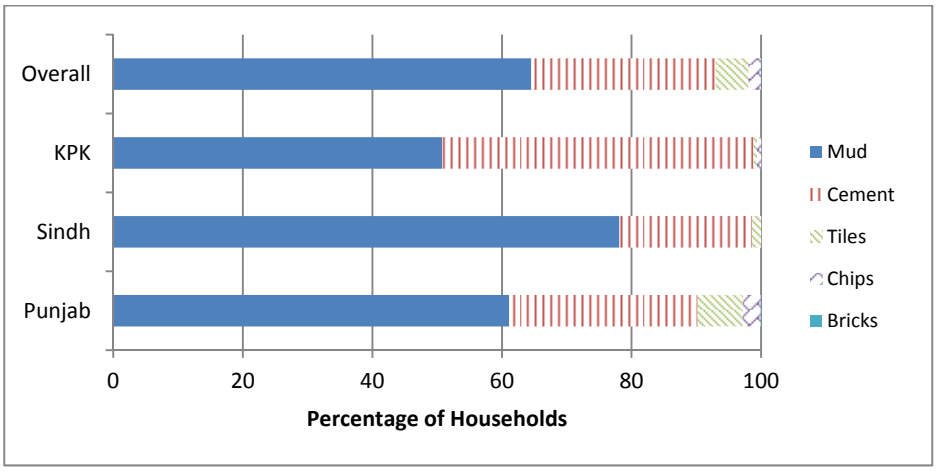
Figure 0.3: Material Used for Roof of House



Some of this variation across provinces may be due to differences in climate. Roofs made from tree leaves allow greater ventilation; this would be important for households in Sindh during the hot and humid summer months. In KPK, concrete roofs are more suitable for retaining heat during the cold winters.

Two-thirds of households across the provinces live in dwellings that have mud floors. This proportion is highest in Sindh (78 percent), 61 percent in Punjab and 51 percent in KPK. Almost all the remaining households in KPK live in a house that has a cement floor. About 10 percent households in Punjab live in houses that have floors made of tiles or marble chips. This proportion is 1 percent or less in KPK and Sindh.

Figure 0.4: Material Used for Floor of House

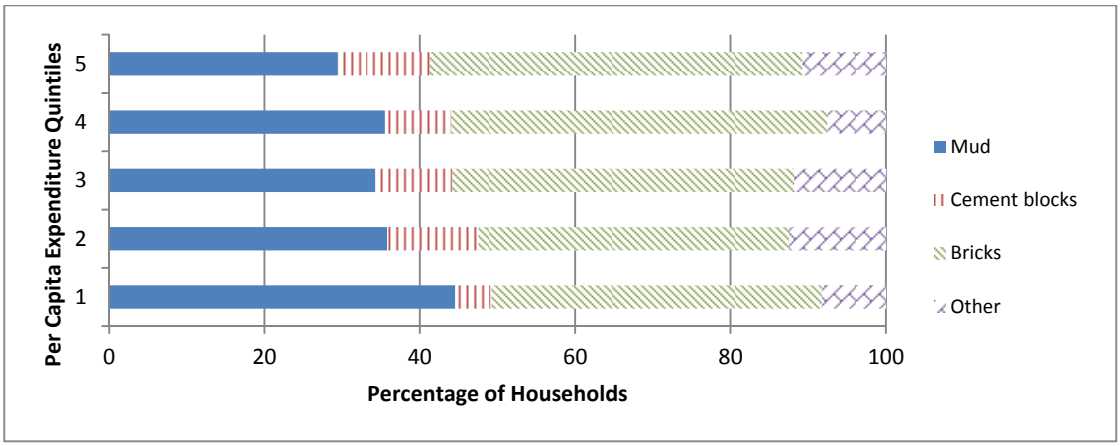


Source: Authors' calculation based on IFPRI/IDS (2012)

Across per capita expenditure quintiles, we see variation in the material used in walls of the dwellings. In the bottom quintile, 45 percent households live in dwellings with mud walls and 47 percent live in houses with walls made of bricks or cement blocks. In the richest quintile, 29 percent households live in houses with mud walls and 60 percent in dwellings with walls made of bricks or cement blocks.

The material used for floor and roof of dwelling varies with the expenditure quintiles in a similar manner. In the lowest expenditure quintile, three-fourths of all households live in a house with mud floors while only 7 percent have floors made from tiles or marble chips. In the highest expenditure quintile, 53 percent households have mud floors and 9 percent have floors made out of tiles or marble chips.

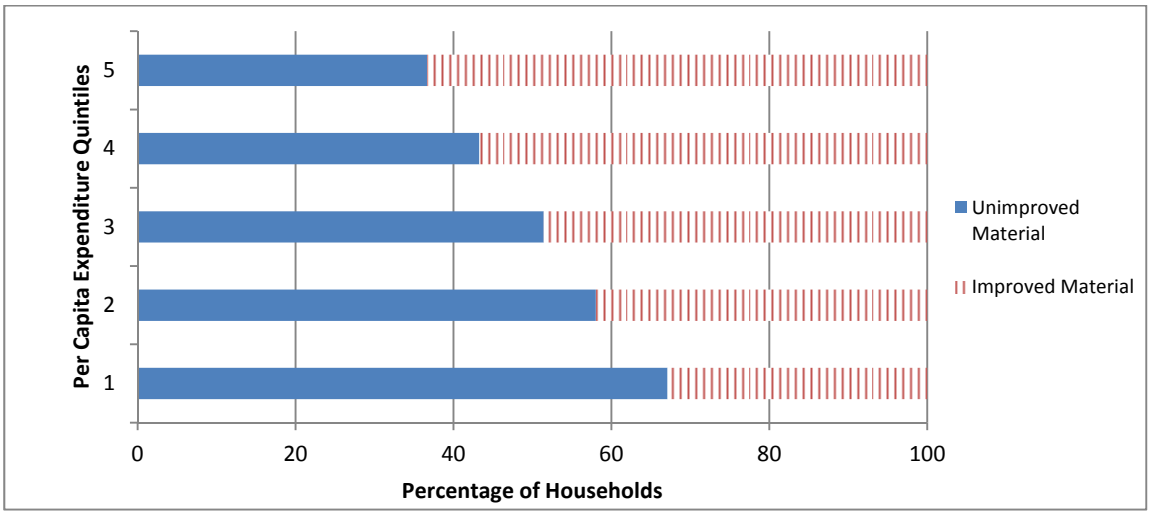
Figure 0.5: Material Used for Walls of House by Expenditure Quintiles



Source: Authors' calculation based on IFPRI/IDS (2012)

The quality of material used in the roof of the dwelling also improves in higher expenditure quintiles. 63 percent households in the highest expenditure quintile, as opposed to 34 percent in the lowest quintile, have a roof made of a high quality material (T-iron guarder, concrete or iron sheets).

Figure 0.6: Quality of Roof of House by Expenditure Quintile



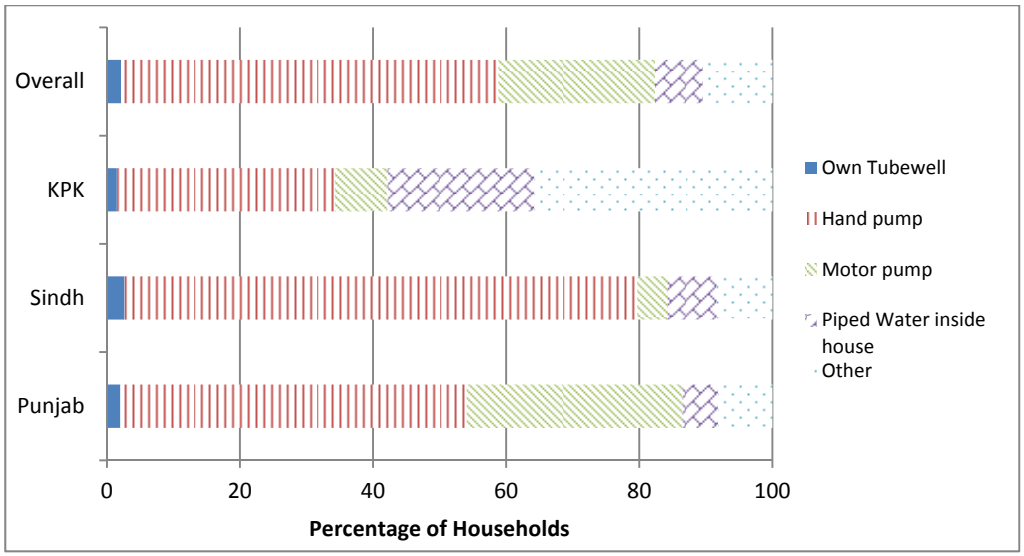
Source: Authors' calculation based on IFPRI/IDS (2012)

Note: improved material includes T-iron guarder, concrete and iron sheets. Remaining are categorized as unimproved material

5.4 Access to Water and Sanitation

We find that hand pumps are the most common source of drinking water across the three provinces. Motor pumps are commonly used in Punjab to provide water from a water storage facility to the household. Tube-wells are not common in KPK, since the water table is low. Other sources of water, such as traditional wells and communal piped water, are more commonly used for drinking water in KPK.

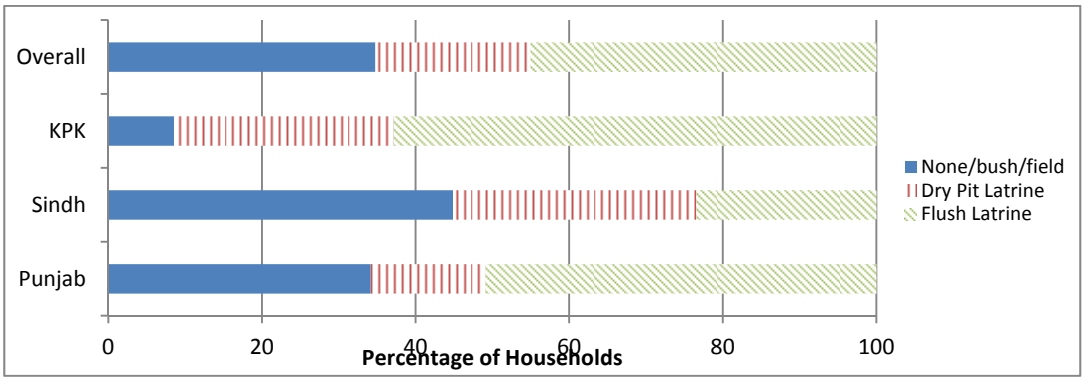
Figure 0.7: Supply of Drinking Water to Household



Source: Authors' calculation based on IFPRI/IDS (2012)

A large proportion of the population does not have access to any kind of a toilet. About 34 percent of households in Punjab and 45 percent in Sindh do not have access to any kind of toilet. In our survey, we find only 9 percent households in KPK do not have access to any type of toilet facilities. About 60 percent of all households in KPK have access to a flush latrine.

Figure 0.8: Type of Latrine used by Household



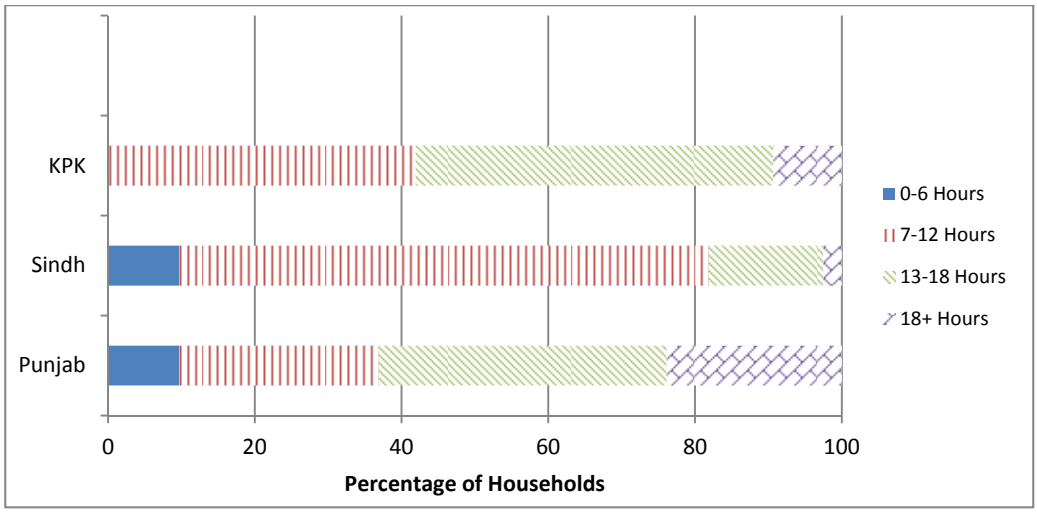
Source: Authors' calculation based on IFPRI/IDS (2012)

A dry pit latrine is an intermediate type of toilet facility that refers to a fixed place that does not have any plumbing. About 15 percent of households in Punjab, 32 percent in Sindh and 29 percent in KPK have access to a dry pit latrine.

5.5 Access to Electricity

Power shortages mean that households across the three provinces suffer regularly from electricity blackouts. In Punjab, over 60 percent of households suffer from 13 hours or more daily power outages. In Sindh, 72 percent households face 7-12 hours daily power outages. In KPK, 91 percent of households do not have electricity for 7-18 hours every day.

Figure 0.9: Hours Per Day that Electricity Supply Goes Off

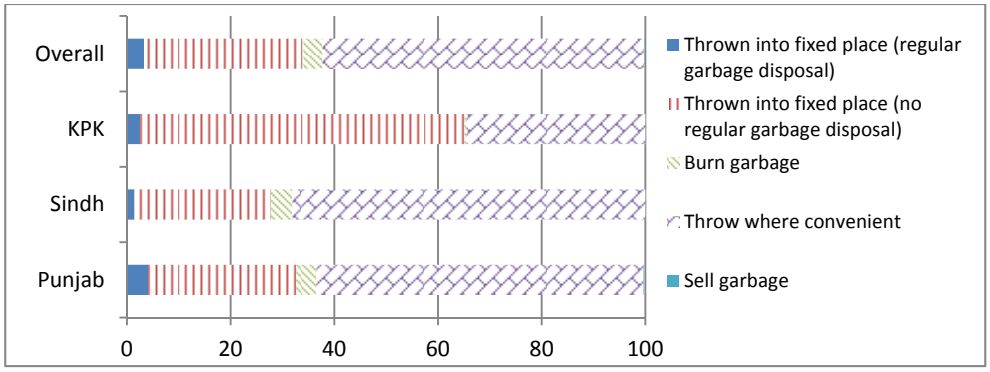


Source: Authors' calculation based on IFPRI/IDS (2012)

5.6 Access to Garbage Collection System

Only 3 percent of households have access to a proper garbage disposal system. Overall, about 60 percent of households reported that they do not dispose garbage at a fixed place and but simply discard it where convenient.

Figure 0.10: Garbage Disposal Facilities



Source: Authors' calculation based on IFPRI/IDS (2012)

Summing Up

This section shows that most households lack access to important facilities such as sanitation and garbage disposal. About 35 percent of households do not have access to any kind of toilet, while an additional 20 percent use a toilet facility that does not have any plumbing. The availability of garbage disposal facilities also seems inadequate; 60 percent of households report that they do not dispose garbage in a fixed location and discard it wherever convenient.

Across the three provinces, most households suffer from daily power outages. In Punjab, over 60 percent of households suffer from 13 hours or more daily power outages. In Sindh, 72 percent households face 7-12 hours daily power outages. In KPK, 91 percent households do not have electricity for 7-18 hours every day.

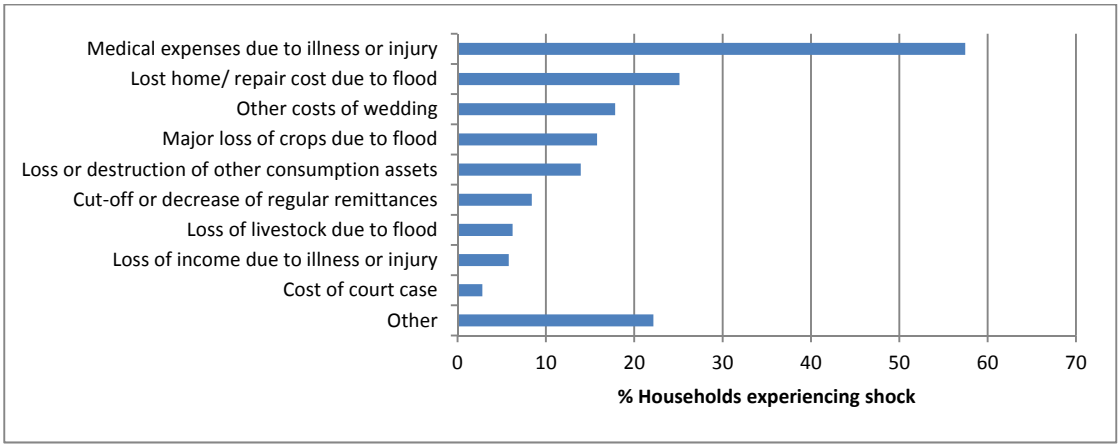
6. SHOCKS

Shocks are generally defined as such events that cause some monetary or non-monetary losses and increase the vulnerability among households. Shocks, in general, are considered events with negative welfare effects. However, some shocks may have positive effects on the welfare of households. For example, receiving an assistance, employment or increase in income of a household member, etc., can be considered as positive shocks. This section examines the negative shocks and coping strategies of households. In addition, the nature of positive shocks is also presented in this section.

6.1 Negative Shocks

A large majority of rural households have experienced some kind of negative shock in the past two years. The most common negative shock by a large margin was medical expenses due to illness or injury, with 57 percent of households having experienced this shock. The second most common shock was lost or damaged home due to a flood (25 percent of households), followed by wedding expenses (excluding dowry), experienced by 18 percent of households.

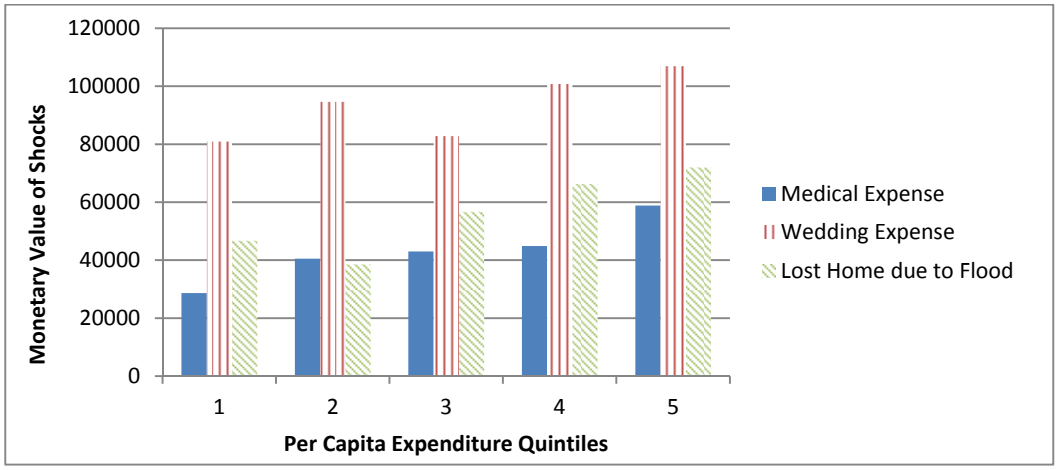
Figure 0.1: Negative Shocks Experienced by Surveyed Households



Source: Authors' calculation based on IFPRI/IDS (2012)

The ranking of shocks across the sample population obscures large variation by province. In Punjab, the most common shock experienced was medical expenses (43 percent), followed by wedding costs (10 percent), and cut-off or decrease in regular remittances (3 percent). Less than 3 percent of households experienced a lost or damaged home due to a flood. The main shocks experienced in Sindh, in contrast, were overwhelmingly flood related, with the three of the top four shocks being a lost or damaged home due to a flood (28 percent), the loss or destruction of consumption items due to a flood (19 percent), and a major loss of crops due to a flood (13 percent). Medical expenses were reported by 16 percent of households, and wedding costs by only 1 percent. Households in KPK also suffered significant flood related losses, with the second and third most common shocks being the loss or destruction of consumption items due to floods (12 percent) and loss of or damage to a home due to floods at 9 percent. The most common shock in KPK was medical expenses (30 percent), with 8 percent reporting wedding costs as a shock.

Figure 0.2: Monetary Value of the Three Most Common Shocks Faced (Rs.)



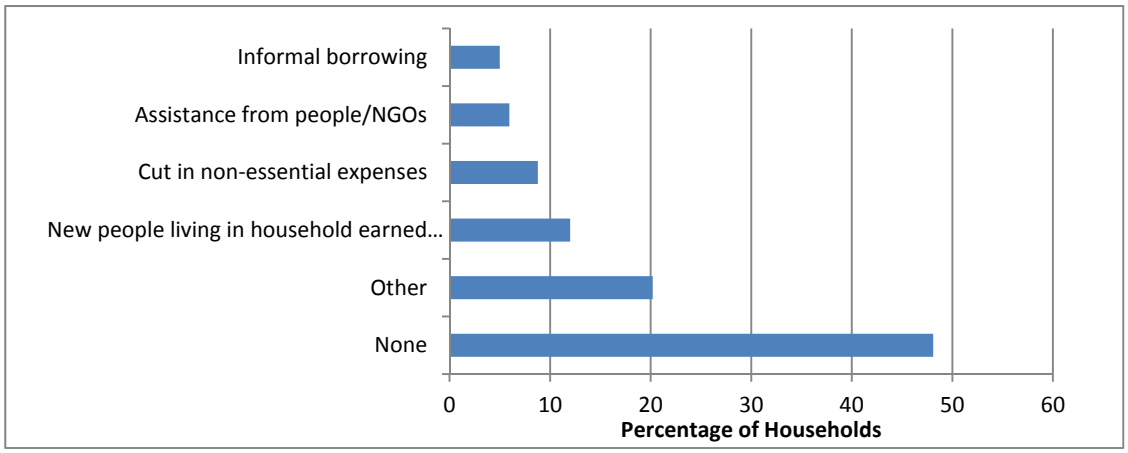
Source: Authors' calculation based on IFPRI/IDS (2012)

The monetary value of the loss incurred by these shocks varied greatly, from an average of Rs. 145,313 for a major loss of crops due to a flood and Rs. 144,406 for a cut-off or decrease of regular remittances, to an average of Rs. 42,752 for medical expenses (the most common shock) and Rs. 23,669 for a loss or destruction of other consumption assets due to

floods. The average wedding cost was Rs. 93,590, and the average loss or damage to a home due to a flood was Rs. 55,051.

Wedding costs generally increased by expenditure quintile, with a wedding in the richest quintile costing over 30 percent more than a wedding in the poorest quintile. The difference between the valuation of the loss of a home due to floods in the poorest and richest quintiles was even more extreme, at 54 percent greater in the richest quintile.

Figure 0.3: Most Common Main Coping Strategies for All Negative Shocks

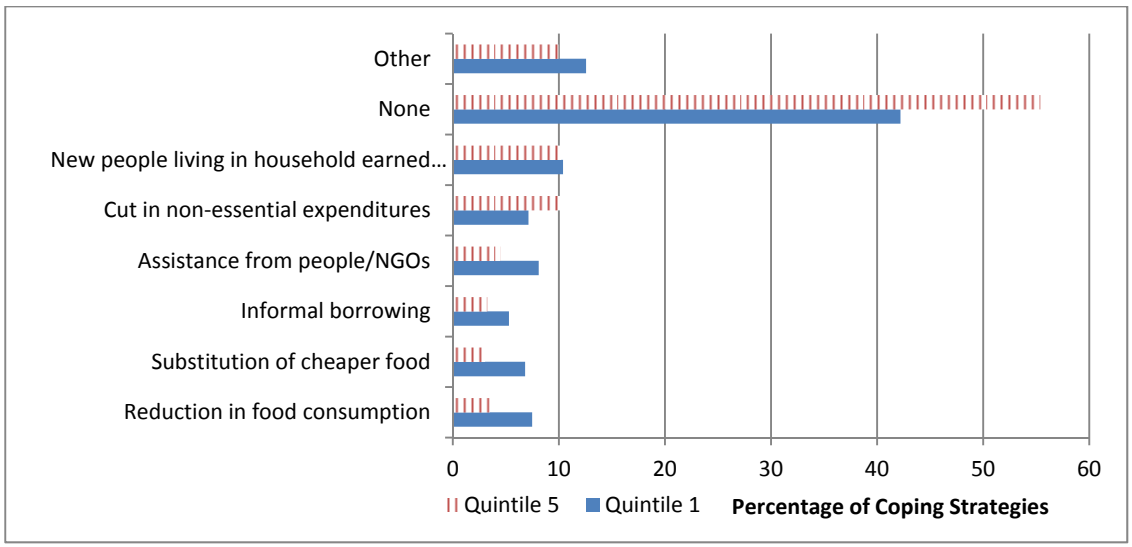


Source: Authors' calculation based on IFPRI/IDS (2012)

In order to cope with negative shocks, households used a variety of coping strategies. However, the most common response by far across expenditure quintiles and types of shocks was to do nothing. As shown in Figure 6.3, most households had no coping strategy for dealing with the negative shocks. The most common coping strategies were increasing the number of wage-earners in the household and cutting non-essential expenses. Few households turned to others for help, as only 11 percent of households say that they used informal borrowing or assistance from people/NGOs as their main means of coping with a negative shock.

The coping strategies used by the general rural population mask significant variation by expenditure quintile. The poorest quintile is far more likely to cut food expenditure, consume cheaper food and receive assistance. The richest quintile is more likely to cut non-essential expenses. This is likely due to the fact that the poorest quintile may have few non-essential expenses to cut. Indeed, this is shown by the 7 percent of households in the poorest quintile that use the relatively extreme strategies of reducing food consumption. Among the richest quintile, only 3 percent report substituting cheaper food.

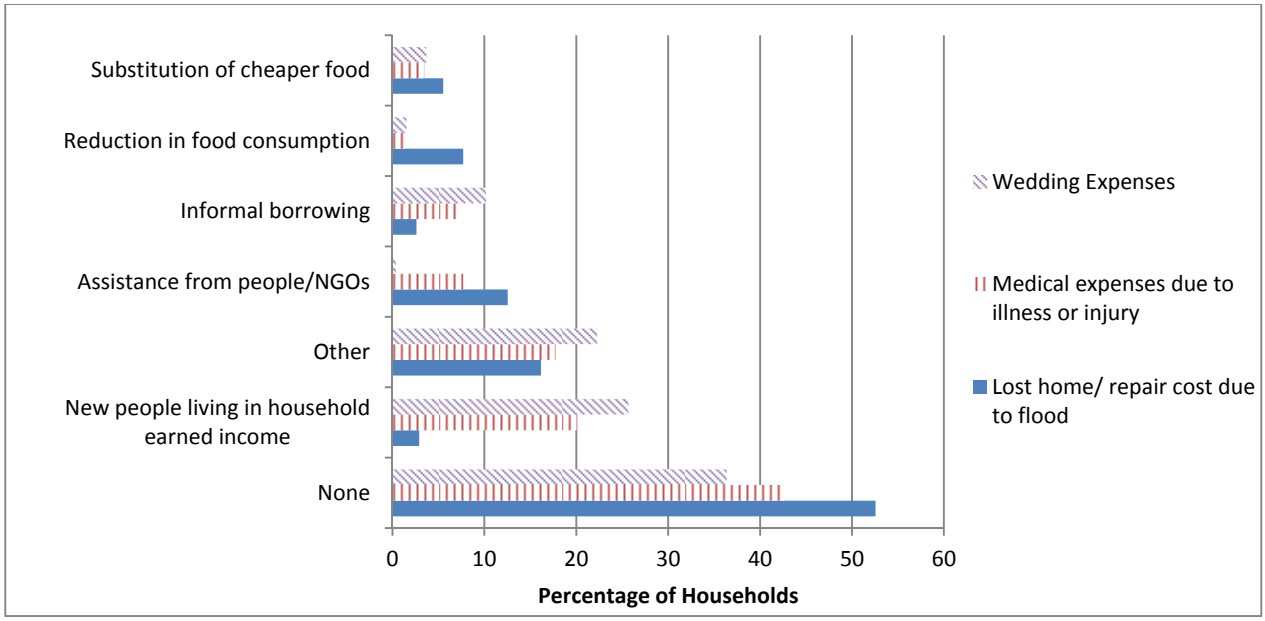
Figure 0.3: Most Common Main Coping Strategies – Top and Bottom Quintile of Per Capita Expenditure



Source: Authors' calculation based on IFPRI/IDS (2012)

In addition to varying across per capita expenditure quintiles, coping strategies also varied across the types of shocks experienced (Figure 6.5). This suggests that different shocks have different effects, requiring different behavioral responses. The three most common shocks, again, were wedding expenditures, medical expenditures, and flood losses. Of these three most common shocks, households were most likely to do nothing to cope with loss or damage to house due to flood. This suggests that the effects of the flood were so devastating that few households had coping strategies that they could use. The lowest proportion of households responding that they did not have a coping strategy was for wedding expenses. 26 percent households had extra members of household earning income, while 12 percent reported that they decreased non-essential expenses. These more proactive behaviors may reflect the fact that wedding expenditures are a more predictable shock than many others, and so can be planned for in advance.

Figure 0.4: Main Coping Strategies for Different Shocks



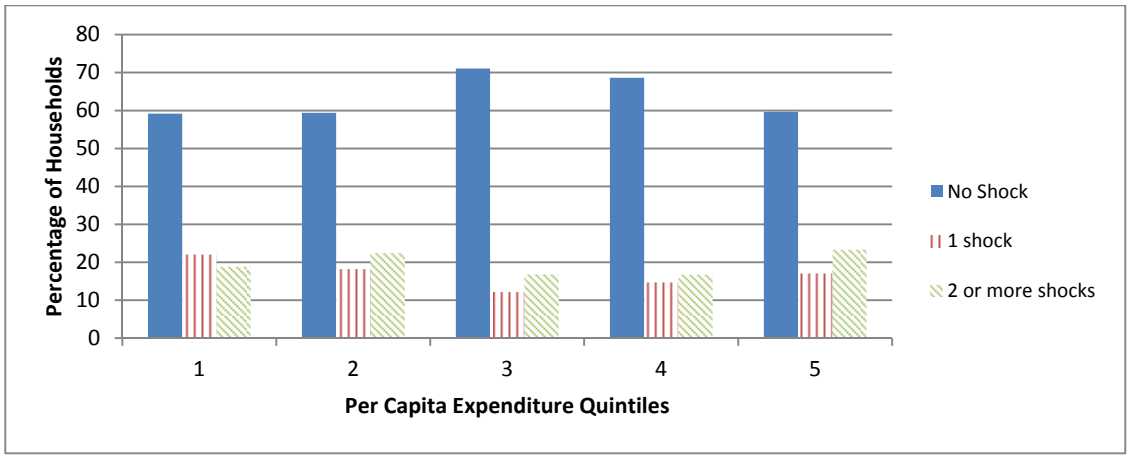
Source: Authors' calculation based on IFPRI/IDS (2012)

The main coping strategies used to handle a flood-related shock may differ from those used to cope with medical and wedding expenses because a flood is an even less predictable event than a wedding or an illness in many cases, and the shock is not only monetary. Thus, households facing these shocks may be more likely to turn to others for assistance. This is indeed the case; 20 percent of those experiencing flood shocks use assistance from other people, NGOs, or the government as their main coping strategy.

6.2 Positive Shocks

Relatively few households in rural Pakistan have experienced positive shocks (defined as a positive event that benefitted the households financially) in the past two years. Overall, 37 percent of households experienced at least one positive shock, while 20 percent experienced more than one. These general results are largely driven by a lack of positive shocks in Punjab, however, where only 19 percent of households experienced at least one positive shock. In Sindh, in contrast, 69 percent of households experienced at least one positive shock, and 43 percent experienced more than one. In KPK, 48 percent of households experienced at least one positive financial event, and 34 percent experienced more than one.

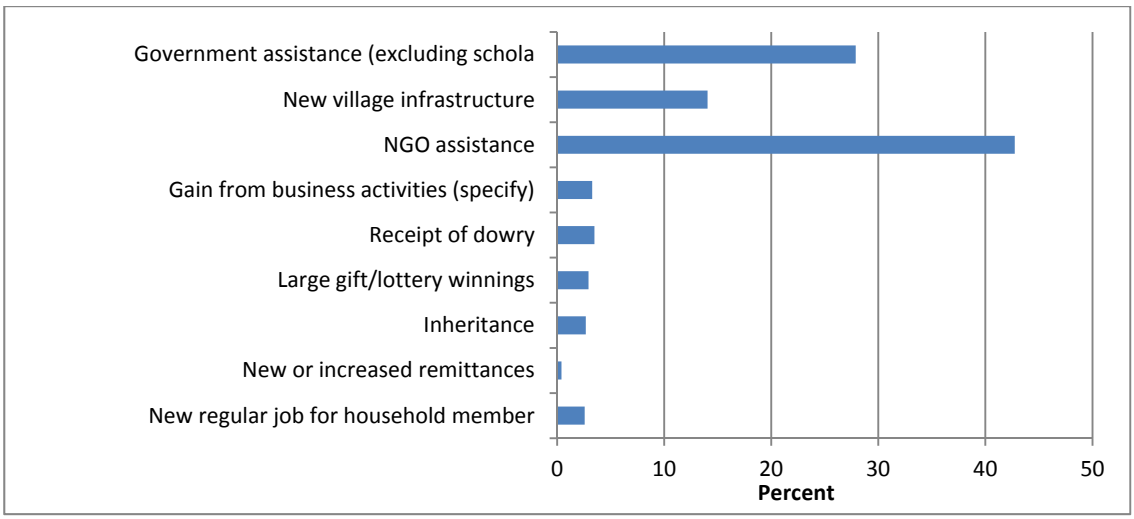
Figure 0.5: Number of Positive Shocks



Source: Authors' calculation based on IFPRI/IDS (2012)

The most common type of positive shock experienced by all households was NGO assistance, followed by government assistance, and then new village infrastructure. However, NGO assistance and government assistance are much more concentrated in KPK (56 percent NGO assistance and 22 percent government assistance, with gains from business activities at 7 percent a distant third) and Sindh (46 percent NGO assistance, 33 percent government assistance, and 17 percent new village infrastructure), while Punjab has a wider range of positive shocks (18 percent NGO assistance, 15 percent new regular job for household member, 13 percent new infrastructure and 13 percent government assistance). This is consistent with the finding of more flood-affected households in Sindh and KPK, and so these positive shocks may be more closely tied to negative events in these provinces. As seen in the previous section, NGO and government were common coping strategies for flood-related shocks.

Figure 0.6: Positive Shocks Experienced by Surveyed Households



Source: Authors' calculation based on IFPRI/IDS (2012)

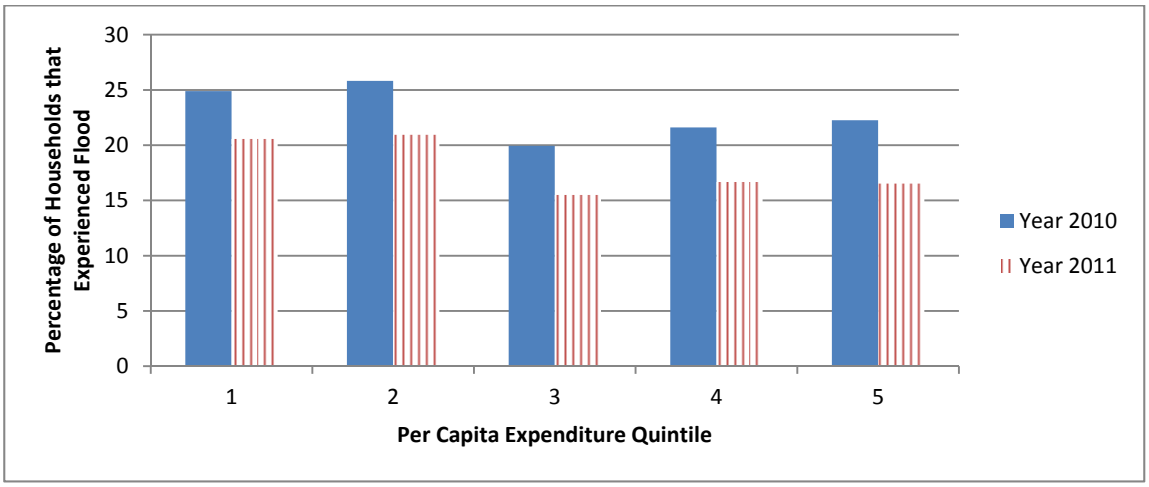
6.3 Floods of 2010 and 2011

The floods in 2010 and 2011 had a major impact on rural households in Pakistan. The Government of Pakistan (2011; 2012) estimated that over 20 million people in 2010 and 9.6 million people in 2011 were affected by the floods. Damages are estimated to be Rs. 855 billion in 2010 and Rs. 324 billion in 2011.

Indeed, of the entire sample, 23 percent experienced the floods in 2010, and 18 percent experienced the floods in 2011. In almost all cases, the 2010 floods also had a larger effect on those affected. However, the effects of the floods were felt much more strongly in Sindh and KPK than in Punjab. Indeed, 56 percent of KPK households experienced the 2010 floods, as did 51 percent of Sindh households. In Punjab, a much smaller 8 percent of households experienced the floods. In 2011,

the effects were smaller and almost exclusively felt in Sindh, where 63 percent of households experienced flooding. In contrast, only 4 percent of households in Punjab and no households in KPK experienced the 2011 floods. Figure 6.8 shows that the rates of flooding impacts are relatively similar across expenditure quintiles.

Figure 0.7: Percentage of Households Experiencing the 2010 and 2011 Floods

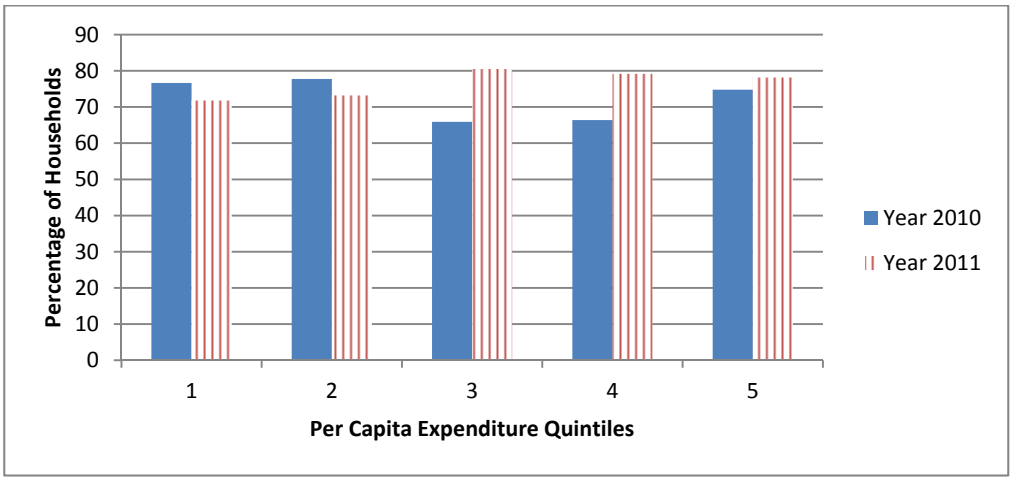


Source: Authors' calculation based on IFPRI/IDS (2012)

Despite high levels of flood impacts, few households actually experienced the death of a member due to the floods. No deaths were reported as a result of the 2010 floods, and 4 were reported as a result of the 2011 floods.

Most of the households that experienced the floods suffered significant damages as a result. Across per capita expenditure quintiles, a similar percentage of households suffered damages to their house during the floods (see Figure 6.9). In contrast, households in higher expenditure quintiles are more likely to have had their agricultural fields flooded (see Figure 6.10), possibly simply because they are more likely to own agricultural fields in the first place.

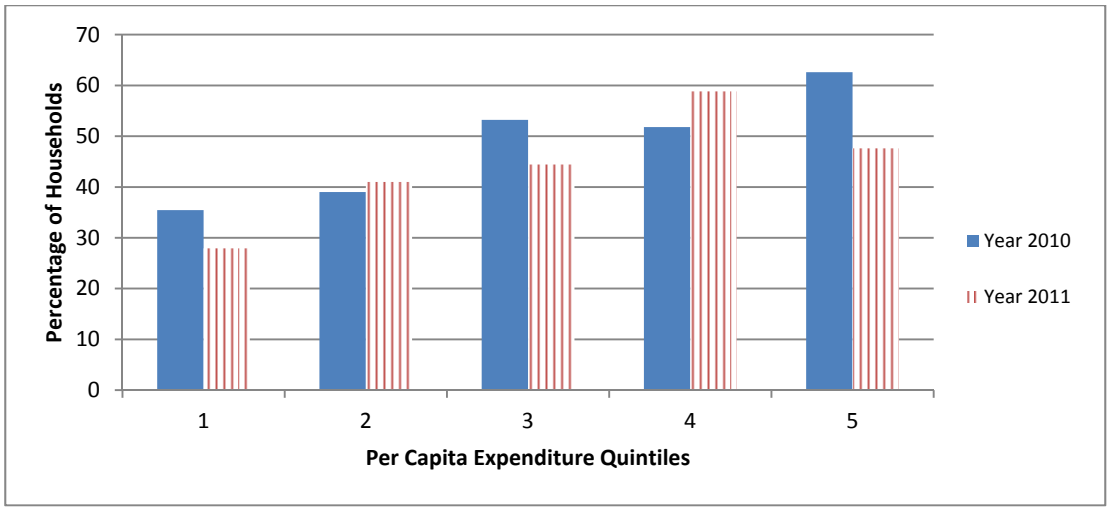
Figure 0.8: Households that Had Houses Damaged by the 2010 or 2011 Floods



Source: Authors' calculation based on IFPRI/IDS (2012)

Note: percentage calculated out of the households that experienced the flood.

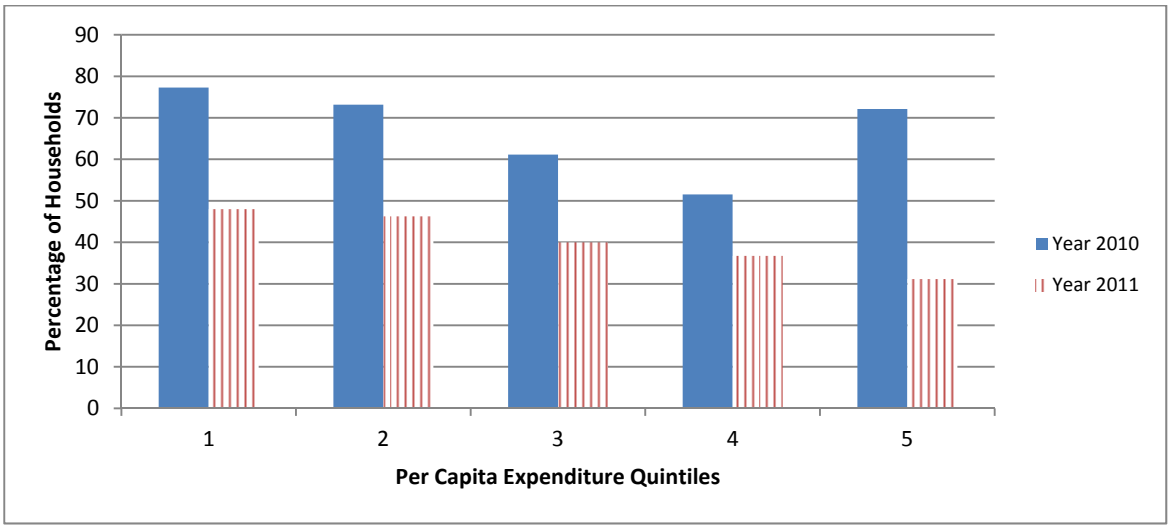
Figure 0.9: Households with Agricultural Fields Flooded by the 2010 or 2011 Floods



Source: Authors' calculation based on IFPRI/IDS (2012)
Note: percentage calculated out of the households that experienced the flood.

Those in KPK and Sindh who experienced the 2010 flood (and those in Sindh who experienced the 2011 flood) were more likely to have sustained damage to their house than those in Punjab, although households in Punjab and KPK are more likely to have experienced flooding in their agricultural fields. While 91 percent of households in KPK experienced damage to their houses in 2010 and 74 percent of households in Sindh did (77 percent in 2011), 53 percent of households in Punjab sustained damage to their houses (74 percent in 2011). In contrast, b63 percent of households in Punjab that experienced the flood in 2010 had their agricultural fields flooded (53 percent in 2011), compared to 36 percent in Sindh (41 in 2011) and 63 percent in KPK.

Figure 0.10: Households that Had to Leave the Village after the 2010 or 2011 Floods



Source: Authors' calculation based on IFPRI/IDS (2012)
Note: percentage calculated out of the households that experienced the flood.

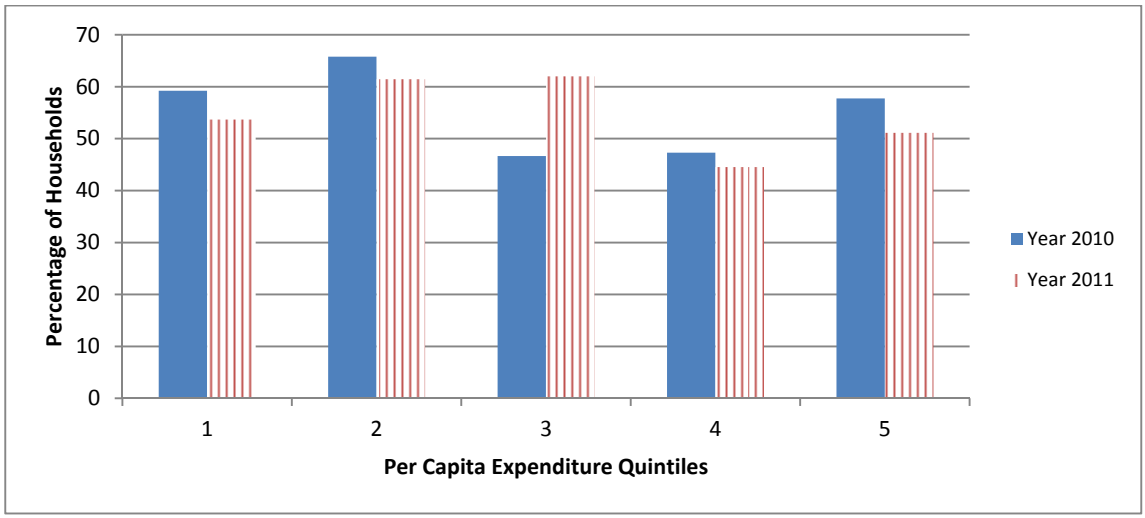
In the villages affected by the floods, a large proportion of households had to leave the village temporarily. Many houses were damaged or destroyed, and households had to seek shelter elsewhere. Also, in many areas several feet of water from floods made the locality temporarily inhabitable. Many households had trouble accessing food and clean drinking water immediately after the flood.

Households in lower expenditure quintiles are more likely to have had to leave their villages after the 2010 or 2011 floods; 72 percent of households left their villages in 2010 (31 percent in 2011) in the top expenditure quintiles, while 77 percent (48 percent in 2011) left in the bottom quintiles (see Figure 6.11). Yet the overall rates of leaving the village in

response to the two floods were high, at 67 percent in 2010 and 40 percent in 2011. Households in Sindh (82 percent) and in KPK (60 percent) were more likely to have needed to leave the village after the 2010 flood than households in Punjab (42 percent), in addition to having higher rates of experiencing the floods. As no households experienced the 2011 floods in KPK, no one had to leave their villages, but the rate in Sindh (41 percent) remained slightly higher than the rate in Punjab (39 percent) of those that experienced the floods.

While many households had to leave the village temporarily as a result of the floods, very few households relocated to these villages permanently as a result of the floods.

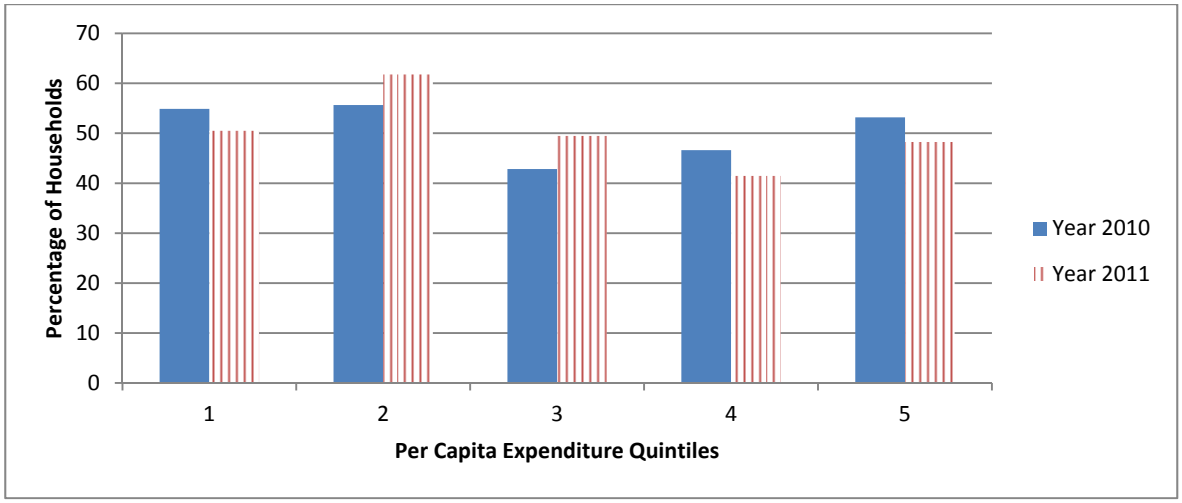
Figure 0.12: Households that Had Problems Accessing Food after the 2010 or 2011 Floods



Source: Authors' calculation based on IFPRI/IDS (2012)
Note: percentage calculated out of the households that experienced the flood.

Many households had problems accessing food as a result of both floods (55 percent of affected households in 2010 and 54 percent in 2011), but the effects were somewhat more equally felt across expenditure quintiles in 2010 than in 2011 (see Figure6.12). An almost identical picture appears when looking at households that had problems accessing water as a result of the floods (see Figure 6.13). At the provincial level, households in Sindh and KPK (in 2010 only) had much greater difficulty accessing food and water than did households in Punjab.

Figure 0.11: Households that Had Problems Accessing Water after the 2010 or 2011 Floods

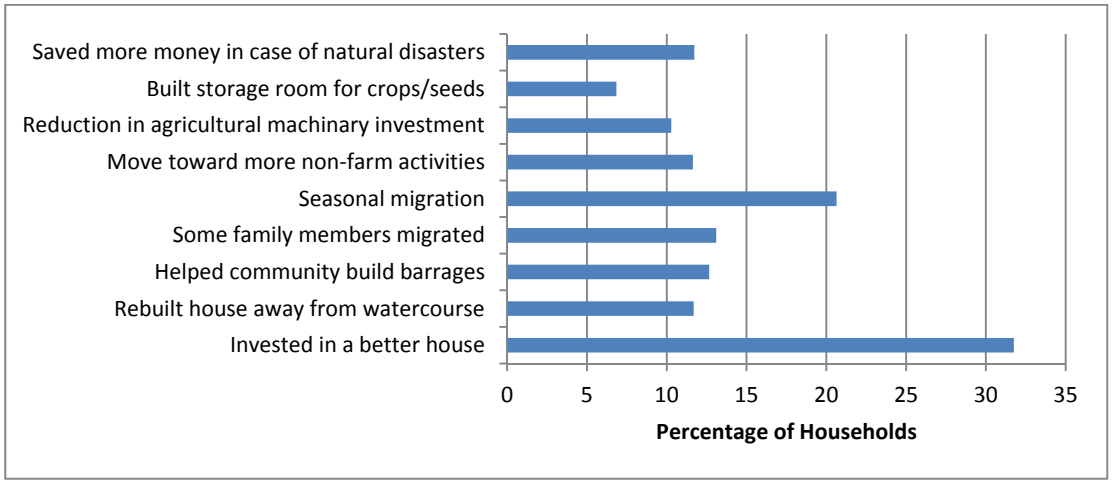


Source: Authors' calculation based on IFPRI/IDS (2012)
Note: percentage calculated out of the households that experienced the flood.

To deal with the effects of the floods in both 2010 and 2011, households used an array of coping strategies (see Figure 6.14). However, by far the most common strategy, employed by 32 percent of households, was to invest in a better house.

The number of households using this strategy does not necessarily indicate that households are taking proactive measures to mitigate the effects of the floods, as majority of households that were affected by either flood report damage to their house. Thus only a subset of those that had to make some repairs to their houses anyway used the opportunity to invest in a better quality structure. A large proportion of households that sustained damage to their house as a result of the floods did not invest in any improvements when repairing their houses. Households were less likely to use other, more proactive strategies to cope with the effects of the floods. For example, only 12 percent rebuilt away from the watercourse, and 13 percent helped build community barrages. A slightly higher percentage (21 percent) engaged in seasonal migration during monsoon season/after flood warning.

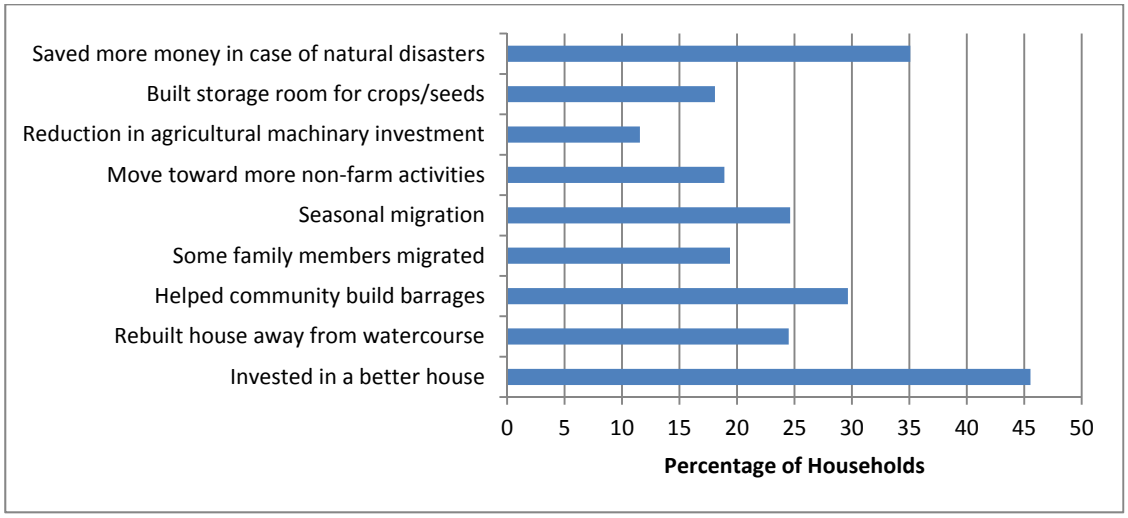
Figure 0.14: Flood Coping Strategies Used by Households



Source: Authors' calculation based on IFPRI/IDS (2012)

Households were significantly more likely to say they would use various coping strategies in a future flood than reported actually using these strategies in response to a past flood. While investing in a better house was still the most common planned strategy, at 46 percent of affected households, proactive strategies were much more popular as regards future floods, rather than those already experienced. The second most common strategy to cope with a future flood, to save more money (35 percent), was only performed by 12 percent of households in response to the 2010 or 2011 floods. Similarly, helping to build community barrages was the third-most-popular future strategy, with 29 percent of households saying they planned to participate. Households were least likely to want to reduce investment in agricultural machinery in response to a future flood, at 12 percent.

Figure 0.12: Households that Plan to Use Flood Coping Strategies in Future Floods



Source: Authors' calculation based on IFPRI/IDS (2012)

6.4 Participation in Social Safety Net Programs

Participation in social safety net programs is relatively uncommon in rural Pakistan, with only 41 percent of households receiving formal or informal social safety net assistance. The types of social safety nets considered range from government programs and employer pensions to community initiatives and relatives. A large proportion of households receive benefits through a female recipient. This is most likely due to the influence of the BISP: 71 percent of female beneficiaries receive their transfers through this program. A similar share of men receives their transfers through the Watan Card program (74 percent). The Watan Card is part of the Citizen Damage Compensation Program (CDCP), under which families affected by the floods in Pakistan are provided financial assistance in two tranches of Rs. 20,000 each.

However, participation in social safety net programs is much more common in Sindh and KPK than in Punjab, although Punjab is the only province in which women's participation outweighs men's. In Punjab, only 22 percent of households receive social safety net support, 60 percent of which contain female beneficiaries. In Sindh, in contrast, 77 percent of households benefit from social safety nets, 39 percent of which are female beneficiaries. KPK is relatively similar to Sindh in that 57 percent of households receive social safety net support, 34 percent of which are female beneficiaries.

The average value of benefits received from all social safety net programs by females is Rs. 7,865, while the average benefit for males is almost three times as much, at Rs. 21,897 in the last 12 months. The average benefit that females received from the BISP was Rs. 5,825, compared to an average of Rs. 21,866 for males receiving Watan Cards.

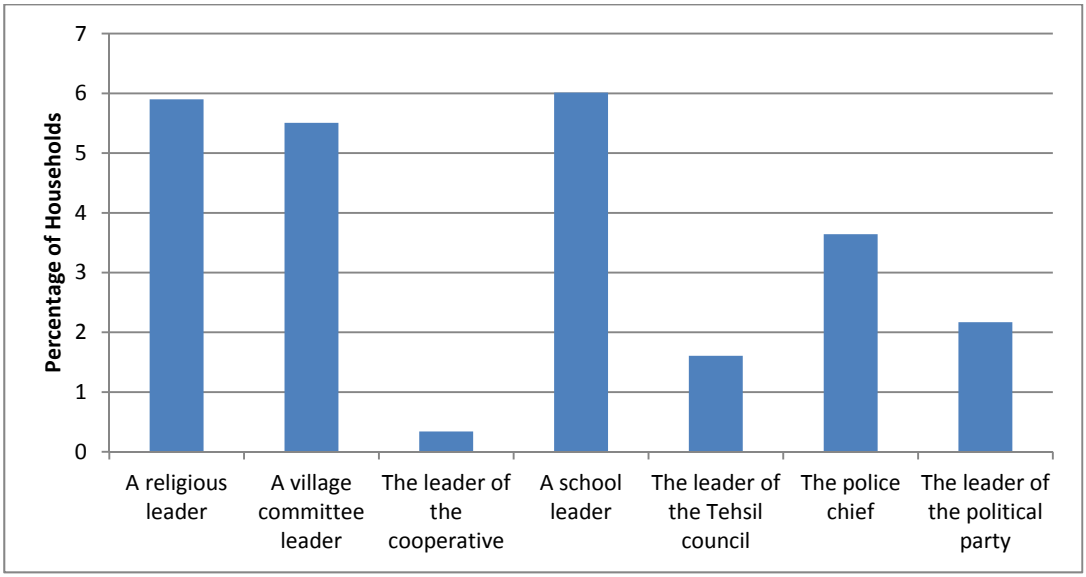
6.5 Social Network of Rural People in Pakistan

Few households in the sample were able to list five people that they could rely on in times of need. The average household can rely on three people in times of need. The is no systematic variation by expenditure quintile in how many people a household can rely on in times of need, though households in KPK and Sindh had a higher median (3) than Punjab (2).

The most common position of members of the social network that households turn to in a time of need is a farmer. This is reported as the profession of over 40 percent of these individuals across income quintiles. However, households in higher quintiles are more likely to report that they can rely on businessmen or self-employed people, increasing from 24 percent in the bottom quintile to 31 percent in the top quintile (even higher than farmers). Households in the top quintile are also more likely to be able to rely on government officials, at 8 percent.

When asked about relationships to prominent members of the community, households are most likely to respond that they have a relationship with a school leader, although the proportion is still low (6 percent). About 5.9 percent of households have a relationship with a religious leader, while 5.5 percent have a relationship with a village committee leader. A small proportion (2 percent) had relationship with the leader of a political party (see Figure 6.16).

Figure 6.16: Proportion of Households Expressing a Relationship with Prominent Members of the Community



Source: Authors' calculation based on IFPRI/IDS (2012)

Summing Up

We find that illness or injuries are the most common negative shocks experienced by households; 57 percent of households had experienced such a shock in the past two years. Many households had been affected by the floods in 2010 and 2011. One quarter of households had lost their house, or had significant damage to their house, due to the floods.

Most households did not have any coping strategies to deal with the negative shocks they experienced. We also find that in lower per capita expenditure quintiles, many households had to resort to extreme coping strategies, such as reducing food consumption or switching to cheaper food. Another interesting finding is that coping mechanisms varied significantly by the type of shock. While majority of the households had no coping strategy for damage to house due to floods, only 36 percent had no coping strategy for wedding expenses. This suggests that households are able to prepare themselves if a negative economic shock is predictable.

We also find that participation in social safety net programs is low. About 60 percent of households had not received any assistance from a formal or informal safety net in the past year.

APPENDIX 1: CONCEPTS AND DEFINITIONS

A brief explanation of the key concepts and definitions used in the report are as follows.

Agricultural Households are farm households who cultivate land, such as owner who cultivate land, tenants who rent-in land on fixed rent, and sharecroppers, who cultivate land on a predefined contract for the division of cost of cultivation and output in the last year.

Agricultural Wage Workers are defined as those who participate in any wage work related to farm operations or livestock including livestock care and production of livestock goods. Some activities are land preparation, fertilizer, pesticide applications, livestock care etc.

Economic Shocks are unexpected or unpredictable event that affects an economy of household, either positively or negatively.

Enrollment Rate is the ratio of number of students of a particular age group enrolled in all levels of education by the number of people in the population in that age group.

Ethnicity is the characteristic of a sizable group of people sharing a common and distinctive racial, national, religious, linguistic, or cultural heritage. In this survey ethnicity refers if a household is Punjabi, Sindhi, Pushtoon, etc.

Formal Source of Credit are those sources that provide credit in a transparent and regulated manner. Some formal sources of credit include commercial banks, ZTBL, Microfinance banks, etc.

Gross Enrollment at Middle level is defined as the proportion of children attending middle level (classes 6-8) with the children aged 10-12 years.

Gross Enrollment at Primary level is defined as the proportion of children attending primary level (classes 1-5) with the children aged 5 - 9 years.

Head of the household is one who may be most influential and main decision maker in the household or maybe not. He is nominated by the respondent at the time of enumeration.

Household constitutes all those persons who usually live together and share their meals. A household may consist of one person or more who may or may not be related to each other.

Household Expenditure refers to expenditures made by the household and individual members on goods and services. Value of goods and services received "in kind" or "own produced" which are consumed by the household are also included in household expenditure.

Household Members are those who have lived at least 3 months in the household over the past year, living and sharing meals often with the household. Such persons may be related or unrelated to each other. All such persons who normally live and eat in the household and are present at the time of enumeration and those who are temporarily absent for reasons such as, visiting, travelling in connection with business, attending schools/ colleges/ universities/ polytechnics/ other educational institutions, admitted in hospitals, outside tours etc., are treated as household members. Visitors, purely temporary boarders and lodgers, transients, servants and guests, etc. who consider their usual place of residence to be elsewhere but are found staying with the sample household are not household members. Absent household members such as migrant workers in the Middle East, are not considered to be part of the household and their income (as far as made available to the household) is included as remittances received. As these persons are not present, consumption expenditures also do not include expenses on their account.

Informal source of Credit are those sources that provide credit without any legal and regulated procedures. Some informal sources of credit include landlords, input dealers, money lenders, friends/relatives/neighbor, etc.

Labor Force Participation Rate is defined in terms of refine activity rate in which economically active population is expressed as a percentage of the population 10 years and above.

Large Farmers include farmers who those cultivate more than 25 acres of land.

Literacy Rate is defined as the number of all individuals older than 10 years who are able to read, write and do simple calculations with or without difficulty as a proportion of all individuals older than 10 years.

Marginal Farmers include those farmers who cultivate land up to 5 acres.

Medium Farmers include farmers who cultivate land greater than 12.5 but less than 25 acres.

Multidimensional Poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments, without access to clean water or sanitation.

Negative shocks are those events that surprises or things that hurt the household financially that were due to the floods, droughts, earthquake, fire, pest or diseases.

Non-agricultural Enterprises are those in which main proprietor of the business is a household member. Such as cobbler, tailor, handicrafts etc.

Non-agricultural Wage Workers are those who participate in any wage work other than farm activities. Some activities are employment in the construction industry, government employees, factory workers, private sector employees, teachers and professor etc.

Non-Farm Households include those who depend either on agricultural or non-agricultural wages/salaries, and households who have any business enterprise.

Non-participating Women are house wives who do not participate in any income generating activity.

Participating Women are those who are involved in a work to earn income for their livelihood.

Positive Shocks are those events that benefit the household financially. It includes inheritance, receipt of dowry, NGO assistance, government assistance (excluding scholarships), provident fund payout, etc.

Province is a principal administrative unit of Pakistan. Pakistan has four provinces (Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan) and two territories (Federally Administered Tribal Areas, and Islamabad Capital Territory).

Sex ratio is the ratio of males to females in a population.

Small Farmers include farmers who cultivate land up to 12.5 acres but more than 5 acres.

Social Safety Nets are non-contributory transfer programs seeking to prevent the poor or vulnerable to shocks and poverty from falling below a certain poverty level. Safety net programs can be provided by the public sector (the state and aid donors) or by the private sector (NGOs, private firms, charities, and informal household transfers).

Student-Teacher Ratio is the number of students who attend a school or university divided by the number of teachers in the institution.

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This Working Paper has been prepared as an output for the Pakistan Strategy Support Program, funded by USAID, and has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies or opinions of IFPRI.

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