SANEI WORKING PAPER SERIES

Social Dimensions of the Impact of Financial Crisis: Case of Pakistan

No. 11 - 05

ZAFAR MUEEN NASIR
MUSLEH-UD DIN

sanei
SOUTH ASIA NETWORK OF ECONOMIC RESEARCH INSTITUTES
www.saneinetwork.net

SANEI WORKING PAPER SERIES

No. 11 - 05

Social Dimensions of the Impact of Financial Crisis: Case of Pakistan

ZAFAR MUEEN NASIR
MUSLEH-UD DIN

March 2011

sanei
South Asia Network of Economic Research Institutes
Bangladesh Institute of Development Studies (BIDS)
E-17, Agargaon, Sher-e-Bangla Nagar, GPO Box # 3854, Dhaka-1207, Bangladesh
T: +88-02-9118324, F: +88-02-8181237
E-mail: saneibd@gmail.com, Web: www.saneinetwork.net

First Published March 2011

The SANEI Working Papers present research studies completed by the Network under its different Programs. These papers reflect research carried out by researchers from South Asian countries who were selected by SANEI to conduct research on specific topics. It is expected that these papers would eventually be published in learned journals or form chapters of books after undergoing due review process and hence comments are most welcome. Neither the Management of SANEI nor any other agency associated with SANEI necessarily endorses any or all of the views expressed in these papers. The Working Papers reflect views based on professional analysis of the authors and the usual caveat of research reports applies.

Recommended Citation

Nasir, Z. M. and Musleh-ud Din, 2011, *Social Dimensions of the Impact of Financial Crisis: Case of Pakistan*,SANEI Working Paper Series No. 11-05, South Asia Network of Economic Research Institutes, Dhaka.

Biography

Zafar Mueen Nasir is the Chief of Research and Dean at Pakistan Institute of Development Economics (PIDE), Islamabad. He was born on 20th September 1956 in Quetta, Baluchistan (Pakistan). He received his early education from Deny's High School Rawalpindi. After matriculation, he joined Government College, Asghar mall to do his F.Sc and B.Sc. Later on he joined Quaid-i-Azam University, Islamabad to do Masters Degree in Economics.

Dr. Nasir started his career at PIDE as Staff Economist in 1983 and carried out research on many important issues before proceeding for PhD in Economics at Kansas State University (KSU), Manhattan, Kansas, USA in 1990 on USAID Scholarship. He successfully completed his degree in economics with major in labor. He obtained straight A's both in Master and PhD courses work at KSU. After returning to Pakistan, Dr Nasir was posted in the Labor Division of PIDE where he produced number of research articles published in Journal of Labor Economics and Pakistan Development Review. His work is also published by the World Bank, International Labour Organization (ILO), United Nations Development Fund (UNDP), Government of Pakistan, and United Nations Funds for Population Activities (UNFPA). He also contributed a number of chapters in different books. In 2003, he was promoted as Chief of Research and posted as Chief of Human Capital and Innovation Division of PIDE. In 2006, Dr Nasir joined Government as Director Policies in Policy Planning Cell of the Ministry of Labor, Manpower and Oversees Pakistanis. He produced three national policy documents on employment, migration and human resource development. After completion of his assignment, Dr Nasir rejoined PIDE and assigned to work as Dean of Business. He was given additional responsibility as Project Director to manage the infrastructure development and capacity building activity at PIDE besides doing research on different economic issues.

Dr. Musleh-ud Din has completed his Ph. D. in Economics from the Johns Hopkins University, USA. He is a Joint Director of Pakistan Institute of Development Economics, Islamabad, Pakistan.

Cover Design

Samiul Ahsan

Page Layout

Ahshan Ullah Bahar

Contents

Social Dimensions of the Impact of Financial Crisis: Case of Pakistan

ZAFAR MUEEN NASIR
MUSLEH-UD DIN[1]

SECTION I

INTRODUCTION

The global financial crisis along with domestic conditions prevailing in Pakistan has adversely affected the economic conditions at the household level by reducing employment opportunities as well as wages and employment related benefits. The main reason was the stalled economic activity due to the dismal performance of the labor intensive sectors such as manufacturing, construction, retail trade, and transport. The fact is reflected in the survey of the Pakistan's economy (Pakistan Economic Survey 2008-09), which shows negative growth of 3.5 percent in manufacturing sector as a result of negative growth of 7.5 percent in large scale manufacturing (LSM) sector. Although small scale manufacturing sector, the other component of the manufacturing sector, is assumed to be growing at 7.5 percent rate annually, but it seems unrealistic, at least for the current fiscal year, when a large number of small businesses have either closed down their operation or scaled it down due to lower demand from LSM sector and power shortage. These developments led to a large number of job losses and/or reduced wages and employment related benefits and affected welfare at the household level.

There is no reliable information on how many people lost their jobs due to the global financial crisis however the available estimates depict different pictures of job losses. A recent survey by a leading daily newspaper "The News", for example, indicated unemployment of hundreds of thousands of people working in different sector of Pakistan' economy owing to the global economic meltdown (The News, 14 January 2009). The survey results show that about 285,000 workers lost their jobs in banking sector, 61,200 in computer industry, 115,000 in construction, 120,200 in electronic industry, 37,000 in media and publication while about 69,000 workers have been laid-off in telecom sector. [2] The official employment projections show a job loss of at least one million in the year 2008-09. An interview with the key informants and industry indicated that more than 3 million people lost their jobs owing to negative growth in the industry. The textile industry, an important sector of Pakistan's economy (almost 67% Pakistani exports consist of cotton and textile products), is also

---

[1] The authors are Chief of Research and Joint Director, respectively, at Pakistan Institute of Development Economics (PIDE), Islamabad, Pakistan. They greatly acknowledge the useful comments of Dr Rashid Amjad, Vice Chancellor, PIDE and Dr Ejaz Ghani, Chief of Research, PIDE. The authors also acknowledge the SANEI for providing funding for the study.

[2] No details are available of the survey methodology and reliability of the results. However this clearly indicates that the major job loss is in those sectors which have strong linkage with international economic system.

shedding employment due to low export demand. An assessment of industry shows that more than one million workers lost their jobs in this sector so far. Such a loss in leading sector is alarming because the sector employs more than 4 million workers; 2.2 million alone in Faisalabad city (Pakistan and Gulf Economist, January 2009). These indications suggest that unemployment rate in Pakistan has touched new heights and may have crossed the highest rate observed in 2001-02.[3]

The rise in unemployment rate resulted from the adverse impact of global financial crisis and local conditions has reduced income at the household level and increased their vulnerability to poverty.[4] The question remains; what are the factors which increase the vulnerability of households to economic shocks? The study is an attempt to answer this question by developing a link between global financial crisis and household vulnerability. The results can guide to design policies and programs to help vulnerable households. The analysis is primarily based on the statistical and qualitative representation of issues related to the study, based on data and information from the primary and secondary sources. Survey reports of the official statistical agencies such as the Census Organizations, Statistics Bureaus and the Central Banks on output, employment, and other aspects of economic performance are the main secondary source. These organizations also carry out frequent official surveys representing the socioeconomic conditions of the country. The Household Income and Expenditure Surveys and the Labour Force Surveys are used extensively in this study.

In order to analyze the impact of global financial crisis on household vulnerability, a household vulnerability survey is carried out in Pakistan from 500 households. Although a number of surveys collect information on income and expenditure however it is not sufficient to carry-out vulnerability analysis in detail.[5] A survey that identifies the tangible and intangible assets held by a family which can be used to determine the household's level of vulnerability to unforeseen events and its likelihood of being harmed by both endogenous and exogenous shocks is very important. The Household Vulnerability Survey (VHS) is especially designed to collect such information to measure the vulnerability of household to risks. The detailed and robust analysis of the impact of the crisis on household level is important to understand the dynamics of the crisis at household level. It is good starting point in devising a stronger and coherent policy response to alleviate the negative effects of economic shocks on the vulnerable families and groups at the national level.

The study is organized in five sections. Following the introduction, the second section presents the discussion on the transmission mechanism of global financial crisis on household vulnerability. The third section focuses on the household vulnerability in the context of global financial crisis. Pakistan Household Vulnerability Survey and multinomial regression results are also discussed in the

[3] The unemployment rate reached at 8.1 percent in 2001-02 which was the highest in the last twenty years (LFS; various issues).

[4] According to experts almost 45 percent households live in poverty in Pakistan.

[5] Household surveys such as income and expenditure surveys, labor force surveys, demographic and health surveys, and Living Standards Measurement surveys, generally include demographic information (age, gender, schooling, family units) for household members and may include information on the activities being undertaken by household members. This may permit the identification of Household's activities in particular, but usually does not permit this identification in much detail.

same section. The discussion on social protection and different schemes are presented in section four. Conclusion and policy options are provided in the last section.

SECTION II

THE GLOBAL FINANCIAL CRISIS AND HOUSEHOLD VULNERABILITY: THE TRANSMISSION MECHANISM

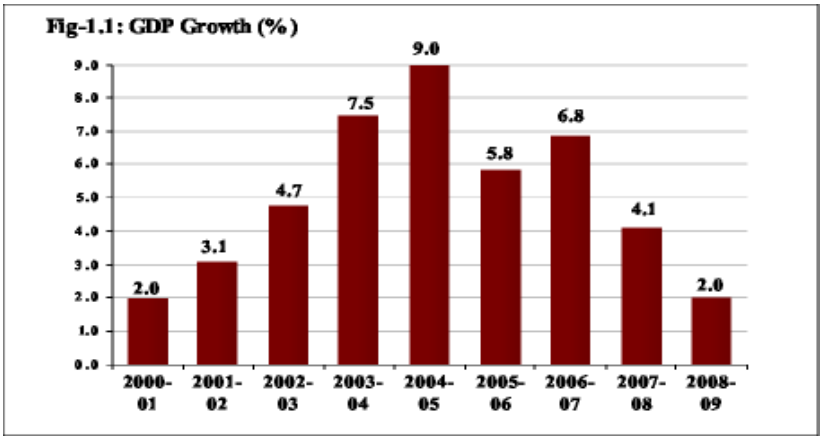
The adverse impact of the global crisis on different sectors of the economy ultimately trickles down to the households with an increase in their vulnerability to poverty. Generally, poor households are more vulnerable to economic shocks but many other households also fall into crisis situation due to the adverse impact of shock. As far as the impact assessment is concerned, the World Bank (2007) claims that a small shock can push a large number of non-poor households into poverty and poor households into extreme poverty. Loss of job and household income due to the crisis is an important issue at the macroeconomic level and needs a thorough investigation.

The economic slowdown in the US and Europe could naturally affect demand for their imports emanating from less developed countries like Pakistan. According to the World Economic Outlook (October 2008), World GDP growth has seen significant reduction in 2008 and this trend is going to continue for coming years due largely of the sharp decline in income growth of the industrialized economies. It is impossible for Pakistan to avoid economic slowdown due to its integration with the World economy. The evidence shows that a range of production sectors that are integrated more with the global economy than most of the domestic economic activities recorded a contraction in their output in 2009-10. These include textiles, minor export crops, export processing, tea, and many of the manufacturing activities including garments, surgical goods and sports goods. The service sectors such as trade, hotels and restaurants and port activities are also show slow-down in these activities. The reduction in exports was due to the fall in export demand, decline in export prices, inadequate exchange rate depreciation and increased competition for the available fewer number of orders. Employees have to bear at least part of the burden. Let's look at Pakistan's economy and performance of different indicators affected by the changes in the income of developed countries.

2.1 Contraction in Economic Activity

The decline in poverty and unemployment is ultimately related to the growth of the economy. The growth record of Pakistan has been good and it maintained above 6 percent growth over a long period of time which helped it to raise income at household level. The global financial crisis has however adversely affected the economy and retarded growth (Figure 2.1). Pakistan experienced low economic growth in 2008-09 after a decade long high growth period from 1999-2008. The economic growth raised the per capita income to US$1046 in 2008-09 from less than

US$500 in 2003-04. The decline in growth is the result of, beside domestic problems, decline in exports due to the global financial crisis.



The composition of the economy shows that agriculture and manufacturing sectors account for almost 50 percent share in GDP while services sector accounts for the other 50 percent share. Although the growth in the economy is more dependent upon the services sector due to its larger share but the two commodity producing sectors, agriculture and manufacturing, also influence growth. The data in Table 2.1 shows abnormally low (0.2 percent) growth in these two sectors in 2008-09. Agriculture sector has registered positive growth while manufacturing sector growth was significantly negative. The decline in manufacturing sector growth is the outcome of 7.7 percent reduction in large scale manufacturing sector output. The performance of this sector is also reflected in the reduction in exports. [6]

The global financial crisis appears to have produced adverse impact on the country's export sector. During the period after July 2008, export growth has slowed down recording negative growth of 3 percent in the year 2008-09 - shrinking to $14.76 billion from $15.22 billion last year (Table 2.2). The textile industry which has remained the major driver of the export growth depicted sluggish performance and registered negative growth of 9.3 percent. This downward trend in the textile sector is contributed by both significant fall in the unit value of almost all major textile items and supply constraints reflected through negative growth even in quantity terms. Other manufacturing exports which account for one-third of total exports showed a growing contraction throughout the year 2009. These non-textile exports grew by 18.3 percent on the back of strong performers like chemicals and pharmaceutical (14.5%), engineering goods (70.1%), and cement (75.7%). These items have very low weight and their huge growth have small impact on the overall quantum of exports. The export of petroleum products felt the pinch of falling petroleum prices and they declined by 27.9 percent. The main agricultural exports

[6] The manufacturing sector is composed of large and small scale sectors however the major contributing sector is large scale which is measured with actual data while growth in the small scale is assumed constant. The large scale sector is an important sector not for the overall economy but also for exports.

however remained positive and recorded a healthy growth. Total exports, which recorded a 10 percent growth in year 2007- 08 shrank by 3 percent in the year 2008-09. In the fiscal year 2009-10, total exports modestly recovered and show 8 percent growth.

TABLE 2.1
Sectoral Growth during 2001-02 to 2008-09

Sectors	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Commodity producing sectors	**4.6**	**4.2**	**9.3**	**9.5**	**5.1**	**6.6**	**1.4**	**0.2**
Agriculture	**4.4**	**4.1**	**2.4**	**6.5**	**6.3**	**4.1**	**1.1**	**4.7**
Major crops	3.5	6.8	1.7	17.7	-3.9	7.7	-6.4	7.7
Minor Crops	4.6	1.9	3.9	1.5	0.4	-1.0	10.9	3.6
Livestock	6.4	2.6	2.9	2.3	15.8	2.8	4.2	3.7
Fishing	3.6	3.4	2.0	0.6	20.8	15.4	9.2	2.3
Forestry	-5.2	-11.1	-3.2	-32.4	-1.1	-5.1	-11.5	-15.7
Mining and Quarrying	2.7	6.6	15.6	10.0	4.6	3.1	4.4	1.3
Manufacturing	**4.8**	**6.9**	**14.0**	**15.5**	**8.7**	**8.3**	**4.8**	**-3.3**
Large Scale	3.6	7.2	18.1	19.9	8.3	8.7	4.0	-7.7
Small Scale	7.8	6.3	-20.0	7.5	8.7	8.1	7.5	7.5
Construction	2.6	4.0	-10.7	18.6	10.2	24.3	-3.9	-10.8
Electricity and Gas	7.4	-11.7	56.8	-5.7	-26.6	4.7	-22.0	-3.7
Services Sector	**4.6**	**5.2**	**5.8**	**8.5**	**6.5**	**7.0**	**6.6**	**3.6**
Transport, Storage and Communication	5.1	4.3	3.5	3.4	4.0	4.7	5.7	2.9
Wholesale and Retail	3.7	6.0	8.3	12.0	-2.4	5.8	5.3	3.1
Finance & Insurance	5.8	-1.3	9.0	30.8	42.9	14.9	12.9	-1.2
Ownership of dwelling	5.3	3.3	3.5	3.5	3.5	3.5	3.5	3.5
Public	2.8	7.7	3.2	0.6	10.1	7.1	1.2	5.0
Defense	6.5	6.2	5.4	6.6	9.9	7.9	10.0	7.3
GDP	**4.6**	**4.7**	**7.5**	**9.0**	**5.8**	**6.8**	**4.1**	**2.0**

TABLE 2.2
Structure of Exports & Change in Major Exports (%), 2006– 10

Products	July-April 2006-07 & 2007-08	July-April 2007-08 & 2008-09	July -April 2008-09 & 2009-10
Food Group	22.4	24.9	7.1
Textile	-2.5	-9.3	7.0
Petroleum Products	38.1	-27.9	7.3
Carpets, Rugs and Mats	-5.7	-30.8	-7.7
Sports Goods	4.5	-6.4	4.1
Leather Products	23.7	-21.3	-21.7
Surgical Goods	33.2	-3.3	-10.2
Chemicals &Pharma Products	57.8	2.0	22.0
Engineering Goods	-14.6	31.4	-6.3
All other Manufactures	101.3	-16.9	-26.2
Total	10.2	-3.0	8.0

Source: Pakistan Economic Survey, various issues

Impact on Employment

The prevailing labor market conditions need to be taken into consideration in an analysis of job losses due to the crisis. First, due to the labor market rigidities constraining 'worker-firing' practice it is not easy for the registered firms to reduce the number of workers. These firms need to seek the approval of labour department for lay-offs, voluntary retirement schemes (VRS) and terminating employment even in the case of closing down operations. Therefore, many firms tend not to register with the labour department as means of cost-cutting practice. This way they can easily fire workers as well as avoid the social security and other payments to labor welfare departments. Secondly, even though there were job losses, they were not reported in labour force surveys as 'unemployed' because they did not actually remain unemployed during the reference period. This also explains why different agencies claim significantly different numbers of job losses.

Thirdly, even if there were no job losses by definition, income loss due to the reduction in the amount of work is an important adverse effect of the crisis on households. In the formal sector, workers have encountered reduction in the number of working-days week, over-time work, loss of financial incentives received for target achievement, loss of bonus, transport allowances and other benefits, shift in workers to lower ranks and activities within the same organization, and many other changes that have affected income. Informal sector is also indirectly related to the performance in the formal sector. Particularly the poor with irregular work and income streams find that average income per given period has reduced due to the reduction in the amount of work that they can find.

The assessment of the global financial crisis on employment is not easy because there is no labor market information system and periodic labor force surveys are the only sources to rely on. There are some independent estimates but their reliability is questionable due to non-availability of methodology. The estimates of this study, according to the information compiled, shows more than 3 million job losses in the country by the end of 2009. Furthermore, during this period a number of factories and firms in the textile and other sectors were closed down. The negative or low growth in large scale manufacturing and other labor intensive sectors such as construction, electricity and gas distribution, finance and insurance, and retail trade have adverse affect on the employment and income at the household level.

The labor force survey (LFS) shows that the agriculture sectors plays dominant role in generating employment. Although it contributes 23 percent in the GDP, its share in total employment is 43.3 percent (Table 2.3), more than any sector of the economy. The LFS data further shows that social and community services, trade, manufacturing, and construction sectors are having 19.8, 14.4, 13.4 and 6.6 percent shares in the total employment, respectively.

TABLE 2.3
Percentage Distribution of Employed Persons by Major Industry

Year	Agri.	Mining, Quar.	Manuf	Const.	Elec, Gas,	Trade	Commu	Finan. Insit	Social	Not Defined
2001-02	42.1	0.1	13.8	6.1	0.8	14.8	5.9	0.9	15.5	-
2003-04	43.1	0.1	13.7	5.8	0.7	14.8	5.7	1.1	15.0	0.1
2005-06	44.1	0.1	13.7	6.2	0.7	14.3	5.7	1.1	14.1	-
2006-07	43.6	0.1	13.5	6.6	0.7	14.4	5.4	1.1	14.4	-
2007-08	43.3	0.1	13.4	6.6	0.7	14.4	5.4	1.1	14.4	-

Source: Labor Force Survey, various issues

The Planning Commission of Pakistan, in its Medium Term Development Framework 2005-10 (MTDF), projected that about 7.28 million new work opportunities will be created in the economy in the plan period with an average of 1.45 million jobs annually. These projections were made on the basis of sectoral GDP growth targets and employment elasticties (Table 2.4). The economy however did not perform as envisaged in the plan period and all projections turned out to be guesstimates.

TABLE 2.4
Employment Elasticity and Sectoral Growth Rates (Projections)

Sectors	Employment Elasticity	GDP Growth Rates (percent)					
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Agriculture	0.24	4.0	4.1	4.2	4.3	4.4	4.5
Mining	- 0.32	5.5	5.6	5.7	5.8	5.9	6.0
Manufacturing	0.16	10.2	9.9	10.0	10.2	10.3	10.4
Construction	0.90	9.5	10.6	10.8	11.0	11.8	12.8
Elect &Gas	0.34	10.0	10.8	11.0	11.2	11.6	12.4
Transport	0.58	4.5	4.8	5.0	5.2	5.4	5.5
Trade	0.71	8.4	8.9	9.6	9.6	9.7	9.8
Finance	0.52	3.5	3.6	3.7	3.8	3.9	4.0
Services	0.92	5.1	7.0	7.3	7.5	7.7	7.7
Overall	0.40	6.5	7.0	7.1	7.3	7.5	8.0

Source: MTDF, Planning Commission of Pakistan, 2005

New projections are worked out in the paper by using the sectoral elasticities estimated in the MTDF with actual growth rate of 2 per cent in 2008-09. The overall increase in employment calculated by this way is about half a million (0.49 million) and that too in the agriculture (0.17 million) and services sector (0.66 million) only. The projections based on the growth rates of -3.5% in the manufacturing sector show a net loss of 0.97 million jobs in the sector. These projections commensurate with the

ground realities where assessment of the textile sector alone show the loss of one million jobs so far.[7] With the growth of 0.49 million job opportunities, total employment will reach at 49.58 million in 2008-09. Considering the actual size of labor force as 52.62 million, there is a deficit of 3.04 million jobs this year. This means the unemployment rate has increased to 5.8 percent. This rise in unemployment rate is the indication of impact of the global financial crisis.

Interviews with working-class household members employed in manufacturing firms confirmed the loss of income and employment and the adverse impact on their households. Many of the employees working in the textile firms encountered a substantial reduction in their income due to the changes within the firm affecting their employment. As a consequence, workers changed their expenditure patterns. Particularly, they reduced the amount of money spent on education and recreation and altered regular expenses such as those on food, clothing, transport, and medical care. The household impact of the crisis as such is equally applicable to the workers in the informal sector that experienced a reduction in the amount of work available for a given period of time leading to a corresponding reduction in income.

Monthly data on manpower export also shows a decline in the number of workers going abroad for employment, the decline is however not very significant (Table 2.5).[8] The exodus of laid-off expatriates back to Pakistan is yet to come. Experts believe that many Pakistanis returning from abroad were employed in the IT related occupations and software designing departments, while majority of construction labor working in Dubai was from India and Bangladesh and not Pakistan. That is the reason we did not see lot of Pakistanis returning.

TABLE 2.5
Monthly Data on Pakistani Workers

Month	2007	2008	2009
January	18,669	31,010	33,913
February	19,481	30,969	35,922
March	20,527	33,141	71,844
April	21,137	38,174	143,688
May	24,496	40,664	35065
June	23,424	39,032	37647
July	25,653	39,387	33600
August	29,542	38,401	33308
September	25,011	35,027	-
October	26,320	38,180	-
November	30,872	37,515	-
December	21,979	28,814	-
Total	**287,111**	**430,314**	**279,055**

Source: Bureau of Emigration and Overseas Employment (BE&OE), 2009.

[7] The textile sector is very important for Pakistan's economy as 67% Pakistani exports consist of cotton and textile products. More than 4 million workers are employed in this sector; 2.2 million of them in Faisalabad city only (Pakistan and Gulf Economist, January 2009).

[8] There is no information available on return migrants therefore it is not possible to capture the volume of return migrants. However recently, Ministry of Labor, Manpower and Overseas Pakistanis have prepared National Emigration Policy which recommends collection of information on different aspects of migrants and return migrants.

The absence of data on returnees who may have suffered from untimely terminated contracts, informal termination in the form of unpaid holidays, and the changes in work conditions of those continuing work abroad precludes conclusions on this issue. It is known that the Gulf countries in the Middle East – countries that hold the bulk of migrant workers – are facing an economic downturn that has affected large industries specially the construction sector. Informal inquiries from 50-60 returnees showed categories of unskilled and skilled workers, professionals, hotel workers of all levels whose contracts had not expired but had been instructed to take a long holiday and await their recall. Most expressed optimism about being called back but were indefinitely without employment currently.

There is no evidence of declining remittance inflows in the first half of the year. The absence of an immediate impact on remittances appears to lull the authorities making them tardy about seeking information on the job situation in these countries. From informal inquiries it appears that much of this increase could be attributed to remittances by the Pakistani Diaspora through formal channels compared with the informal channels that may have been preferred in the past, mainly for reconstruction of housing. The war on terror has probably made workers to use formal channel rather than sending remittance through hawala or hundi.

The fact that most of these were from low income households that were already vulnerable both domestically and abroad and had migrated to these jobs to get relief from deprivation for their families leaves these households more acutely vulnerable. They have in the first place lost the regular income from migration that they had relied on. Many had commenced on long term activities such as house building, paid educational courses for children, children's school transport, commencement of advanced medical treatment that would have been unaffordable had it not been for migrant earnings. These were all now interrupted with no hope of being revived. The shrinking employment opportunities abroad appeared to have added a new dimension since those from vulnerable groups now find it hard to get foreign employment opportunities.

SECTION III

GLOBAL FINANCIAL CRISIS AND HOUSEHOLD VULNERABILITY

The economic impact emanating from the global financial downturn has hit hard at the poor segments of the society through a number of channels. The official estimates claim that poverty in the last eight years came down to 22.3 percent from 35 percent in early 2001. Although lack of full integration of Pakistan's financial markets with international markets is expected to prevent the country from the adverse impact getting imported, the low growth of domestic economy has affected the households more. During the economic boom, all efforts were concentrated on the demand management which pushed up the prices of various essential items and made the life of the common people difficult.

The rise in the food prices has affected the poor and middle class the most as they spent major portion of their income on food items. The recent report of Oxfam

states that due to food inflation the number of poor increased from 60 to 77 million.[9] As a result of increased prices, people are forced to cut their expenditure; even on food. According to another estimate, the poorest one-fifth of the population spends 50-58 per cent of its income on buying cereal. A recent survey indicates that 32 per cent people have to cut their expenditure on food due to rise in prices.[10] The survey further shows that rising cost of food, fuel and electricity have put 56 per cent households in a vulnerable situation in the country.

Because the country has to comply with the IMF stabilization program, it is feared that brunt of adjustment would fall on the social sectors, in particular on education and health as happened in the past under IMF program resulting in reduced opportunities for the poor households and increasing their vulnerability. Rise in the interest rate under the IMF program is already hurting industry with increase in the cost of borrowing. This has set in the recessionary trend in the country and forced businesses to lay off workers resulting in higher unemployment and poverty level.

In the absence of reliable household vulnerability estimates, it is difficult to identify factors increasing household vulnerability. An attempt is made in the present study to fill the gap by estimating household vulnerability from the latest data collected from 500 Pakistani households. The study is expected to increase our understanding of the micro level impact of global financial crisis. In the context of Pakistan, various studies are available which analyze poverty in a dynamic framework (see McCulloch and Baulch, 1999 and 2000; Mansuri and Healy, 2002; Kurosaki and Hussain, 1999; Jamal and Lohano, 2008). These studies are based on household panel data which is rarely available in developing countries. However the data used for these studies is not representative of Pakistan or of rural Pakistan.

The study by Ninno et al (2006), on the contrary, used data from the Household Income and Expenditure Survey (HIES), which is nationally representative and traditionally used to determine poverty indices or aggregates in Pakistan. They utilized methodology developed by Chaudhuri et al (2002) to assess the vulnerability to poverty from cross sectional data in the absence of panel data. Authors found that the estimates of vulnerability range between 47 to 67 percent, depending on the choice of the time horizon of the analysis and the threshold of vulnerability. About one third of the population is vulnerable due to low level of resources, regardless of the time horizon, while for 24-34 percent of the population, vulnerability to poverty stems from a high volatility of consumption.

The objective of this section is to see how global financial crisis has affected the welfare at household level and increased their vulnerability to poverty. The multinomial logit model is utilized to determine the factors increasing the likelihood of the households to vulnerability. Part 2 of the section presents the review of literature on vulnerability; part 3 describes the dataset and methodology adopted for modeling household vulnerability; part 4 presents the general poverty and vulnerability situation in Pakistan; part 5 introduces the variables utilized in the

[9] Food crisis in Pakistan: real or artificial, Oxfam 2008.
[10] Living Standard Measurement Survey (LSMS) , 2008

regression model; part 6 presents the results of the multinomial logit model and the last part provides conclusions and policy recommendations.

3.1 Review of Literature

It is difficult to determine the factors related with vulnerability and risk directly by simply asking a household whether or not it is vulnerable to risk due to these factors. Because the range of unforeseen occurrences is very broad, any individual household could be vulnerable to some events and not to others. Vulnerability must be measured through proxies that can be defined as those assets that allow a household to manage risks and enhances their ability to withstand shocks. Assets can be tangible, such as land, labor capital, and savings, or intangible, such as social capital, access to employment opportunities and health and education. Both types of assets are important in being able to determine the vulnerability of households and individuals (Siegel & Alwang; 1999). In terms of determining the household's ability to cope with risks, the more assets a household has access to and the more diversified those assets, the better the household's ability to cope with the risks they face. Poor households have limited means of managing risk even though there are many different mechanisms and strategies. Some of the mechanisms and strategies are drawn from household resources, both financial and physical, and some are drawn from governmental organizations designed to provide assistance when households are unable to manage risks with their own resources.

It is important not only to know the assets that households possess, but also the attributes of those assets in order to determine the usefulness of a given asset for risk management. Attributes of household assets such as security of access, rights to use and/or transfer, interactions of the assets, liquidity and mobility needs to be understood in order to fully exploit the information known about the asset. It is important to note that when using assets as a proxy for determining vulnerability and risk without panel or very good retrospective data analyses/studies, it is difficult to know the extent to which a specific asset is linked to protecting against vulnerability. This can sometimes be determined through qualitative observations. For example, if there is no land market, selling land will not be an option.

Risks often manifest themselves in the form of shocks to households. Shocks can be thought of in terms of predictable events (seasonal drought) and unpredictable events (accidents, natural disasters, economic crises). These events can be at the country level (economic crisis), community level (floods) or at the household level (unemployment or death of an economically active household member). The household's response to those shocks can be measured in one of two ways. The first way requires the use of panel data. In the first round of the survey, households are asked about the assets they currently possess. In the second round of the survey the same households are asked about the assets they possess at the time of the second round and any shocks they may have experienced between the two rounds of the survey. Additional questions can be included on the disposition of the assets to carry out ex-post analysis to see the responses of the households to the shocks. The second way uses retrospective questions about the occurrence of shocks. Households can be inquired about the assets they currently possess and any

shock they experienced during a time period in the past and what the household's reaction was to those shocks in terms of their behavior and the disposition of assets. The behavior can be some re-distribution of real assets or human capital to deal with the crisis. Following on this, an assessment of vulnerability should examine the nature of the shock (Sinha and Lipton, 1999), how this is transmitted to the household as well as the coping mechanisms available at the household or community level (Holzmann et al., 2001; Moser, 1996, 1998; Shaffer, 2001; Dercon, 2001). At the same time, a methodological criterion is needed for identifying the households unable to secure their living standards in the face of a negative event.[1] The literature proposes two main approaches to household vulnerability.

In the first approach, vulnerability is defined as a downturn in consumption which can be attributed to an "uninsured exposure to risks" or, more generally, to the lack of effective coping mechanisms (Hoddinott et al. 2003). Glewwe and Hall (1998) provide one of the earliest applied analyses of household vulnerability defined as variability in household consumption. They identify the socio-economic groups experiencing positive or negative changes in their consumption value in a period of five years (between 1985 and 1990). The literature has also analyzed vulnerability by looking at the covariance between income changes and consumption changes (Amin et al. 2001). Vulnerability is estimated by looking at the response of household consumption to household-specific (idiosyncratic) income shocks. Higher covariance means higher vulnerability of consumption to income risk. The application of this methodology to the participants of micro-credit programs in Bangladesh shows that households below the poverty line have significantly higher average vulnerability than those above the poverty line.

This approach provides evidence of the incapacity of existing risk coping mechanisms to protect household consumption from income fluctuations (Hoddinott and Quisumbing, 2003). However, this literature does not provide information on what creates vulnerability. This is the focus of Dercon and Krishnan (2000): consumption fluctuations are linked to shocks experienced by rural households. The authors analyze movements of household consumption along an 18 month dataset in Ethiopia. The authors find that shocks have a negative effect on household welfare: harvest failure is the most frequently quoted cause of hardship; other problems are related to public policy, labor and livestock. The second approach to vulnerability looks at the decline in living standards below a certain threshold, such as the poverty line. In both approaches, vulnerability manifests itself in terms of downward fluctuation in living standards. However, the second approach exclusively looks at the households whose decline is such that the poverty line is crossed. This definition of vulnerability excludes those households among the non-poor who are well- enough off so that when they experience the decline in welfare provoked by the shock they remain non-poor.

Within this framework, various methodologies have been proposed in literature. Chaudhuri et al. (2001) define vulnerability as the ex-ante risk of facing poverty in the future, conditional on the current observable household characteristics. They estimate the probability that a currently non-poor household will fall below the

poverty line and the probability that a currently poor household will remain in poverty even if it does not experience any large adverse welfare shock. It must be specified that Chaudhuri et al (2001) utilize a cross-section survey. The utilization of a cross-section survey forces the establishment of very stringent hypothesis regarding the process generating household consumption. The authors assume the consumption generation process in which a mean-zero disturbance term captures idiosyncratic factors (shocks) that contribute to different per capita consumption levels for households that are otherwise observationally equivalent. The idiosyncratic factors that contribute to different per capita consumption levels are identical and independently distributed over time for each household. And the uncertainty over future consumption stems solely from the uncertainty about the idiosyncratic shock, *eh,* that a household will experience in the future.

Similarly, Christiansen et al. (2000; 2001) define vulnerability as the probability statement regarding failure to attain a certain threshold of well-being in the future. The methodology elaborated in Christiansen et al. (2000; 2001) requires the definition of the time horizon (set by the authors at one period ahead) and of the indicator of well-being (consumption). The household's ex-ante distribution of future consumption is obtained from a flexible heteroskedastic regression specification, which allows the prediction of the ex-ante mean and variance of future consumption for each household based on its current characteristics and assets. The methodology also requires the definition of the poverty line and of a probability threshold such that a person or household is considered vulnerable if its probability of shortfall exceeds the given threshold. Prichett et al. (1998) instead expand the analysis on a multiple time horizon and they define vulnerability as the probability of observing at least one episode of poverty in the future.

However the identification of vulnerable household is a very delicate task. Because of the intrinsic uncertainty that features human life, it is impossible to find exact factors which push households into risk of falling below the poverty line or at risk of experiencing welfare downturns in the future. Nobody can predict what it is going to happen in the future: the size, the persistency and the severity of the negative event are unknown. Similarly, the household reaction and the capacity to cope with the shock are unpredictable. Most of the methodologies proposed for measuring household vulnerability identify vulnerable households when they have already fallen into poverty or when they have already experienced welfare downturns (Chistiaensen et al, 2000; Prichett et al, 1998; Glewwe et Hall, 1998). By doing so, assessing vulnerability does not lead to the identification of today's households at risk of experiencing poverty, but of those who were at risk of poverty who are currently in a poverty status.

An attempt is made here to identify the factors pushing households into adverse situation. This way the occurrence of shocks can be modeled and their impact on household living standards explored. The paper uses multinomial logit model in estimating a household's vulnerability to poverty due to economic or demographic factors. This approach looks at "vulnerability to poverty" of the households which fall into poverty after the shock. This methodology produces relevant policy

implications since it allows identifying factors and households categories that needs special attention.

3.2 Methodology and Model of the Study

The methodology of the study is based on two steps. In the first step, households are categorized into four different groups based on the monthly per capita consumption expenditure. This is the same approach adopted by the PSLM in defining four groups i.e. extremely poor, poor, vulnerable and non-poor groups. The cut-off points of these groups are defined as:

Extremely poor (HG1): Households having per capita monthly consumption less than 50 percent of the poverty line;

Poor (HG2): Monthly expenditure required for 2250 calories;

Vulnerable (HG3): Per Capita monthly consumption greater than Poverty line but less than or equal to double poverty line expenditure; and

Non-poor (HG4): Per Capita monthly consumption above the double of Poverty line expenditure.

In the second step, Multinomial Logistic Regression (MNLR) is used to ascertain the factors pushing households into the vulnerable situation. Although a number of other estimation techniques such as Ordinary Least Square, Logit or Probit Model are also available to be applied on the cross-section data but MNLR is the most appropriate technique for our study due to its multi-dimensional focus. The model is explained in more detail in the following section.

3.2.1 Multinomial Logistic Regression

The family vulnerability is assessed through their spending on different goods and services. Assume that households are rational decision-making units who make choices between consumption of goods to maximize their perceived utility subject to budget constraints. Considering the households maximize their utility function of the form

$U = U$ (Ci, Lj) where i = 1,2,3 .....n and j= 1,2,3....m … … … (1)

where C_i is household consumption of *good "i"* and L_j represents the leisure hours for family member "j". The household maximizes utility subject to the following budget constraint

$$W_1L_1 + W_2L_2 + W_3L_3 + P_yY = M \equiv I + W_1\Omega + W_2\Omega + W_3\Omega \quad \ldots \quad \ldots \qquad (2)$$

where W_1 , W_2 and W_2 are wage rates of family members, respectively, P_y is price of good consumed, Y, I is non labour income, M is full income and Ω is total number of hours available for work and

$$L + \Omega = T$$

where T is the total time.

Maximizing utility function subject to the constraint (2) yields the demand functions for leisure and the composite good of the household members.

$$L_i = F_i\,(W_h, W_w, W_c, P_y; M) \qquad i = 1, 2, 3, 4\ldots$$

$$Y = F_y (W_h, W_w, W_c, P_y; M) \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (3)$$

Substituting these optimized demand functions into the utility function yields the indirect utility function for each household. Households maximize their indirect utility functions given prices and incomes. Following McFadden (1973), we assume that due to imperfect information, knowledge and perception of the households there are errors in the maximization process which makes household utility a random function. Following Maddala (1983), we suppose that our households face p situations for allocation of resources and define a latent variable V_k^* denoting the level of indirect utility attached with the *k*th situation. The variables V_k are given by

$$V_k = 1 \quad \text{if} \quad V_k = Max\,(V^*_1, V^*_2, \ldots, V^*_m)$$

$$V_k = 0 \quad \text{otherwise} \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (4)$$

The variables V_k are decomposed into a non-stochastic component, $V_k(X_k)$ and a stochastic component, ε_k, written as

$$V_k = V_k(X_k) + \varepsilon_k \qquad k = 1, 2, \ldots, m \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (5)$$

where X_k is the vector of attributes of the *k*th situation and ε_k gives the errors in perception and optimization.

More specifically, we assume that a typical household falls among four mutually exclusive and exhaustive alternatives. These include (i) poor and head unemployed, (ii) Poor and head employed, (iii) non-poor and head unemployed; and (iv) non-poor and head employed. We categorize these alternatives as HH1, HH2, HH3 and HH4, respectively. A household maximizes its utility function subject to the constraints imposed by each of the alternatives. The household, therefore, modifies its budget constraints to reflect respective costs and returns of each alternative. This results into four indirect utility functions. The household compares the levels of indirect utility, which can be achieved from the various alternatives, and choose the alternative that maximizes the household's indirect utility. The probability that household *i* falls in *k*th category is the probability that the indirect utility from *k*th choice is greater than that derived from other alternatives

$$P_{ik} = P_r\,(V_{ik} > V_{ij}) \qquad \forall\, j \neq k, j = 1,2,3,4 \quad \ldots \quad \ldots \quad \ldots \quad (6)$$

This implies that the probability of household *i* falling in category *k* is the probability that the difference between the stochastic components is greater than the difference between the non-stochastic components.

$$P_{ik} = P_r\,(\varepsilon_{ik} - \varepsilon_{ij} > V_{ij} - V_{ik}) \qquad \forall\ j \neq k, j = 1,2,3,4 \quad \ldots \quad \ldots \quad (7)$$

Assuming that the errors are independently and identically distributed with Weibull distribution then the difference between the errors has a logistic distribution (Greene; 2007) and the Multinomial Logit is the appropriate technique of estimation. The probabilities in the Multinomial Logit model are therefore given by

$$\Pr ob(Y = j) = \frac{e^{\beta_j x_i}}{1 + \sum_{k=1}^{J} e^{\beta_k' x_i}}$$

$$\Pr ob(Y = 0) = \frac{1}{1 + \sum_{k=1}^{J} e^{\beta_k' x_i}} \qquad \text{for } j = 1,2,3,4.\ldots \quad \ldots \quad \ldots \quad (8)$$

where coefficients β's are normalized to zero, and *x* is the vector of explanatory variables. The Multinomial Logit Model is identified by normalizing the coefficients of one of the choices to zero. Hence we normalize the coefficients of the alternative of poor and head unemployed (HH1) to zero.

To interpret the effect of the independent variables (*x*) on the probabilities of each category, we calculate partial derivatives as

$$\frac{\partial P}{\partial X} = P_j(1 - P_j)\beta_{xj} - \sum_k P_j P_k \beta_{xk} \qquad \text{where } j,k = 1,2,3,4. \ldots \quad \ldots \quad (9)$$

where *P* is the probability of falling in each alternative.

The log of likelihood function is derived by defining for each household, d_{ij} =1 if households *i* falls in alternative *j*, and 0 if not, for the possible outcomes. Then, for each household *i*, one and only one of the d_{ij}*'s* is one (Greene; 2007). The log likelihood function is given by

$$lnL = \sum_i \sum_j d_{ij} \quad ln \text{ Prob } (Y_i = j) \qquad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (10)$$

This model is based on the assumption that the four categories of household are independent of each other. The model will help in identifying factors that enhance the vulnerability of the families and put them in a situation where they have to solicit protection.

3.3 The Household Survey

The data for the analysis of household vulnerability is collected from a sample of 500 randomly selected Pakistani households. The size of the sample limits our ability to disaggregate results to small geographic levels. The village list published by the population census organization in 1998 was taken as sampling frame for drawing the sample for rural areas. For urban areas, sampling frame developed by the Federal Bureau of Statistics (FBS) was used. In this frame each city/town has been divided into enumeration blocks of approximately 200 to 250 households. Cities having population of half a million or more such as Karachi, Lahore, Faisalabad, Rawalpindi, Multan, Hyderabad and Peshawar were treated as self-representing cities (SRCs). Islamabad and Quetta, being federal and provincial capitals respectively, were also considered as the SRCs. Each of these cities constituted a separate stratum and also further sub-stratified according to low, middle and high-income groups. The remaining urban population in each division of all the four provinces was grouped together to form a stratum. A division thus was treated as an independent stratum. Rural population of each district in Punjab, Sind and NWFP was grouped together to form a stratum. For Baluchistan province a division was treated as a stratum.

Two stage stratified sample design was adopted for the Household Survey. Enumeration blocks in urban domain and Mouzas/Dehs/Villages in rural domain were taken as primary sampling units (PSUs). Households within the sampled PSUs were taken as secondary sampling units (SSUs). Within a PSU, a sample of 3 households from urban domain and 5 households from rural domain was selected. As noted above, the main objective of the household survey was to examine the impact of global financial crisis on poor and vulnerable groups. The survey was carried out in low income PSUs so that the impact of shock on vulnerable households is captured properly.

Distribution of the sample by province with rural/urban breakdown is reported in Table 3.1. The Survey was carried out in 100 PSUs; 66 rural and 34 urban PSUs. Table 3.1 shows the distribution of sampled households covered in the survey. A total of 500 households were randomly selected from rural and urban PSUs of all the four provinces. As the share of rural population is more than urban, this ratio is maintained in the selection of urban and rural samples.

TABLE 3.1

Distribution of the Sample PSUs and SSUs with Urban/Rural and Provincial Break-down,

Province	Sample PSUs			Sample SSUs		
	Total	Rural	Urban	Total	Rural	Urban
Punjab	45	30	12	228	180	48
Sind	25	14	9	120	84	36
Khyber Pukhtunkha	20	12	7	100	72	28
Baluchistan	10	6	4	52	36	16
Total	100	66	34	500	372	128

A questionnaire is designed to collect information on household's different activities including income, consumption and assets. The questionnaire was divided into five major sections consisting of household roster, labor force and employment, income and expenditure, savings and assets and adverse shocks to households.[11] The set of questions pertaining to shocks that family has experienced and the response to that shock helps in analyzing the vulnerability of the households to shocks. Before launching the survey, the questionnaire was tested in both urban and rural areas. Pre-testing of the questionnaire provided an opportunity to understand the field problems and shortcomings of the questionnaire. In general, questions were easily understood by respondents and no major problem was reported. However a few minor problems were detected and fixed in some parts of the questionnaire. These include employment, income and expenditure and household assets. The field teams were trained in Islamabad and Karachi before sending them in the field. Filled

[11] The questionnaire is provided in Appendix 1.

questionnaires were edited and data was entered in the SPSS program. The data cleaning was carried out before analyzing it.

The cost of the survey compelled us to limit the sample of the study to 500 households which is a small sample by any standard. The questionnaire is however quite exhaustive and comprehensive in obtaining required information. It is important to mention that there is always a tradeoff between the length of the questionnaire and the number of respondents in order to keep costs at reasonable level. This tradeoff for obtaining the detailed information may be to have a smaller sample size. Small sample sizes, however, are not necessarily an obstacle to analyses. They provide the ability to limit non-sampling errors such as refusals, respondent fatigue, and interviewer errors which cannot be predicted and for which statistical tests do not exist. The sample of the study is therefore enough to generate good estimates.

Beside cost, the time is also a critical factor to collect information from a large number of people. If there are a large number of interviews to be done in a small time period, the emphasis is often to get a response from any household member who is available at the time of the interview. This is not the ideal solution to gather information on household vulnerability but best alternative under the given conditions. Moreover, the random sampling technique is used so that more reasonable results are obtained in a limited time frame.

3.4 Poverty and Vulnerability in Pakistan: Some Stylized Facts

Pakistan has experienced a sharp decline in the poverty during the period 2000-07. But situation changed drastically afterwards mainly due to the inflationary pressures. The trends in the prices of essential items during 2007-08 show steep rise especially of the goods consumed by poor household such as wheat flour, rice, edible oil, vegetables and pulses. A price hike of 200 percent is witnessed of palm oil; 150 percent of wheat, while over 100 percent of oil in the international market. Besides, economic growth has slowed down considerably during the last three years. Two main sectors, the industry and construction, have contracted due to the slowdown in the domestic economy, energy shortage and global recession. These developments adversely affected the local and foreign job markets and absorbing capacity of the economy and points towards a strong likelihood of a sharp increase in the poverty incidence in Pakistan.[12]

The Pakistan Social and Living Standard Measurement (PSLM) Survey established a poverty line in 2005-06 which amounts to Pak Rupees (PRs) 944.47 per person per month. The extreme poverty line (half of the poverty line) amounts to PRs 472.23 per person per month. The poverty line is based on the household consumption and according to the estimates about 1.0 percent population was living in extreme poverty in Pakistan in 2005-06 while 23.5 percent were living below the general

[12] The poverty estimates based on the Pakistan Social and Living Standard Measurement (PSLM) Survey data by two public sector agencies (Centre for Poverty Reduction and Social Policy Development (CPRSPD) and Planning and Development Division) show a sharp decline in the headcount poverty ratio for 2007-08. However, these findings appear to contradict other assessments conducted subsequently, and which better reflect global and domestic price developments after June 2008.

poverty line (PSLM, 2005-06). At the same time, significant regional differences in poverty incidence were present: 13.1 percent population in urban areas compared to 27 percent in rural areas. There are no official estimates available after 2005-06 however the World Bank has recently estimated poverty by using same methodology adopted by Center for Poverty Reduction and Income Distribution. Their estimates indicate that poverty head count ratio could rise to over 25 percent by 2009-10. The estimates based on the data collected for the present study and on inflation adjusted poverty line of PRs.1290.52 per person per month in 2009-10 shows 31 percent population living below poverty line.

In Pakistan, together with the poverty figures, terms like "vulnerability" and "risk of poverty" often recur in the social policy debate. It is assessed that a sizeable proportion of the population faces the risk of falling into poverty. Therefore "the percentage of population classified as poor on the basis of the current consumption levels is only a fraction of those in Pakistan who must worry about, and struggle to avoid becoming poor at some point in the relatively near future" (World Bank, 2003). There is something more than the official poverty figures to be said on the household exposure to shocks, their weak endowment of productive assets, the uncertainty of income, etc.

Households are defined vulnerable whose per capita consumption is slightly above the poverty line (GOP, 2009). A vulnerability line, set at 100 percent above the general poverty line, is drawn and a household is defined vulnerable if its per capita consumption falls in the interval determined by the two lines. The households termed vulnerable if they fall between PRs 1290.52 and 2581.04. Those having per capita consumption above PRs 2581.04 are termed as non-poor. This approach is highly useful in the identification of the vulnerable households by simply counting the number of households falling in the pre-determined interval. The data presented in Table 3.2 shows that about 56 percent population in 2010 is living in the vulnerable situation. However, the counting of the households whose living standard is slightly above the poverty line is a measure of the welfare distribution rather than household vulnerability. This way of looking at vulnerability identifies the vulnerable without explaining why they are vulnerable. In other words, why should policy-makers look at those households who are slightly above the poverty line? Why does being slightly above the poverty line matter? These questions are of central importance because households defined as vulnerable according to the Pakistan Economic Survey approach, might count on a quite secure livelihood system although proximal to the poverty line. Therefore the data was further analyzed to find out the transmission mechanism as well as factors which global financial crisis has affected and put households in the vulnerable situation.

TABLE 3.2

Population under Various Poverty Bands

Poverty Status	Year 2004-05 Poverty Line= Rs 878.64	Year 2005-06 Poverty Line= Rs 944.47	Year 2010 Poverty Line= Rs 1290.52
Extremely Poor consumption <50%	<Rs 439.32 **1.00%**	<Rs 472.23 **0.50%**	<Rs 645.26 **4.9%**
Poor	<=Rs 878.64 **22.9%**	<=Rs 944.47 **21.8%**	<=Rs 1290.52 **29.6%**
Vulnerable >100%<200%	878.64-Rs 1757.28 **55.5**	Rs 944.47-1888.94 **56.8**	Rs 1290.52-2581.04 **56.2**
Non-Poor >200%	>Rs 1757.28 **20.50**	>Rs 1888.94 **20.90**	>Rs 2581.04 **13.1**

Source: Pakistan Economic Survey 2007-08 and Current Survey 2010

The data shows that two important factors which affected the income and expenditure at the household level were the employment and inflation. These two shocks are the main source of household vulnerability as almost all households having monthly per capita consumption of less than PRs 2000 were hard hit by them. Most of the households are having the employment as their main source of income. The data shows almost 40 percent families experienced unemployment of one or more members due to the down turn of the economy or financial crisis. This shock was more pronounced for low skilled and illiterate families. The impact of this shock for about one fifth of the sampled families having only one employed member was devastating and pushed them either into poverty or increased their vulnerability to poverty.

Similarly the impact of the inflation shock was also disturbing for almost 82 percent of the surveyed households. These families used to spend 50-60 percent of their income on essential food items. The overall general inflation of 12 and 22 percent in two consecutive (2008-09 & 10) years badly affected the household budget and created difficult situation for poor families. A number of families cut down their food expenditure to adjust to the inflation. This increased their vulnerability to poverty by eroding their assets.

There are a number of safety nets available in the country to provide assistance to the vulnerable families. These include the Zakat and Ushr, Bait-ul Maal, Social Security, Employees Old Age benefit etc. Recently government launched Benezir Income Support Program (BISP) especially for people hard hit by the inflation and global financial crisis and fell into the poverty or vulnerable situation. Families affected by this crisis receive PRs1000 per month under this program. In the first phase, a total of seven million families were selected from all over the country to receive compensation. The data collected for the study contains the information on different safety nets programs including BISP. Table 3.3 shows the average consumption of families receiving compensation under BISP along with those not receiving any help. A total of 87 families (out of 500) in our sample are receiving income support. The data clearly indicates that families with BISP assistance are able to increase their monthly expenditure on food consumption. This support the

implementation of such cash transfer programs in different countries of region to mitigate the impact of global financial crisis at household level.

Table 3.3
Average Monthly Per Capita Consumption Expenditure of Families with and without BISP Assistance

Poverty Status	Families with BISP assistance	Families without BISP assistance	Total
Poor	Rs 1473 (87)	Rs 894 (85)	Rs 1187 (172)
Vulnerable	-	Rs 1634 (229)	Rs 1634 (229)
Non-Poor	-	Rs 2867 (99)	Rs 2867 (99)
Total	Rs 1473 (87)	Rs 1777 (413)	Rs 1724 (500)

Source: Current Survey 2010

In the following section, factors increasing likelihood of families falling into vulnerable situation are estimated by using Multinomial Logit Model.

3.5 Multinomial Logit Model

The dependent variable for the analysis is categorical having four categories i.e. HH1= poor household with head unemployed; HH2=poor household and head employed; HH3=non-poor household and head unemployed and HH4= non-poor household and head employed. The poverty status of the household is derived from the household per capita monthly consumption expenditure. The four categories adopted in the study are same as being used in the official documents. These include two poor and two non-poor categories.

There may be a number of economic and social factors leading households to different situations such as poverty, vulnerability and non-poor status. The primary motivation of this study is to identify factors which may have role in pushing households to one of the above situations. The broader classification of the factors into Demographic Characteristics, Education, Employment and Location is given below.

3.5.1 Demographic Characteristics

This set of variables includes the characteristics of the households in terms of size, composition, and dependency ratio. Three categories are identified according to the age of the household members: below 15 years, 15-60 years and above 60 years. For individuals aged between 15 and 60, a gender distinction is applied. The household size and dependency ratio (ratio of household members below 15 and above 60 years to household size) is included in the model as independent variables. The regression also explores the connection between household vulnerability and the gender of household head. A dummy variable is introduced to indicate whether the household head is married and living with spouse.

3.5.2 Human Capital

The regression includes variables indicating different educational attainments of household members older than 14 years of age. This is due to the investment in education made by household adults which cannot be influenced by the current household living standards because it dates back to years ago. The first education variable in the regression considers the ratio of adult members who never attended school and unable "to read, write and do simple arithmetic with understanding" to total adults in the household. The second variable identifies the adult members who never attended school or never attained qualifications but capable of reading and writing. The investment in human capital is analyzed by looking at the number of adults with primary, secondary and higher level of education as well as those who received training (vocational /technical). Following Datt et al (2000) and others, the education variables are differentiated by gender.

3.5.3 Employment

This set of variables refers to household employment and livelihood characteristics. The presence of unemployed in the household is represented by the number of unemployed over total adults in the household. These unemployed include both who were employed in the domestic or foreign market. The case of individuals employed in informal labor is represented by two variables. The first includes household members engaged in agriculture activities such as owner cultivators, unpaid family helpers who support other members in their work and those who perform other activities such as sale of agricultural goods and other unspecified services. These are defined as agricultural occupation. The other category, informal laborers, includes persons working for private enterprises not registered with the labor department. This categorization is in accordance with Bernabe (2002) which proposes a distinction between unregulated and unregistered activities whose main purpose is to meet basic needs and activities which are concealed to avoid taxes and regulations. These two aspects are very relevant in Pakistan where enterprises attempt to escape registration and legislation procedures while households and individuals turn to small scale income activities to generate livelihoods in absence of formal employment opportunities. Formal labor is described through two variables: the first identifies household members working in public enterprise, institutions and organizations. The second identifies those working for private sector employers registered with labor department and regularly receive pension contributions. Another variable represents self-employed; the owners or co-owners of enterprises or small-businesses. Finally, the ratio of employed workers in the foreign labor market to family size is also included.

3.6 Regression Results

The estimated parameters for each category of household, i.e., HH1 – HH4, are obtained from single maximum likelihood multinomial logit estimation. The estimates of the regression are presented in Table 3.3 with * representing statistical significance.

3.6.1 Human Capital

The estimated results show positive and significant coefficients of human capital variables for HH3 and HH4 categories showing the importance of human capital in the economic well being of the family.[13] The results indicate that the likelihood of being in a non-poor household increases as compared to HH1 (poor and head unemployed) households with investment in education and training of both males and females. The positive and highly significant coefficient of training variable for non-poor households indicates that probability of household to be non-poor increases with the presence of individuals having some type of training. The coefficient has negative but statistically insignificant coefficient in poor category showing no effect of training on poor households. The only education variable that has significant negative relationship with household well-being relates to illiterate individuals who do not have reading, writing and arithmetic skills. The coefficient is statistically significant in all three categories however the magnitude of the coefficient declines as we move from poor to non-poor households.

TABLE 3.3
Multinomial Logit Regression Results

Variable Name	HH4	HH3	HH2	HH1
Constant	-9.45	-8.91	-6.18	-3.52
	(0.16)	(0.42)	(0.27)	
Demographic Characteristics				
Age of household head	0.013**	0.012**	0.013	0.01
	(3.29)	(4.81)	(1.03)	
Age Square of household head	-0.000**	-0.000**	-0.000	-0.00
	(-2.682)	(-2.67)	(-0.211)	
Household size	-0.121	-0.090	0.103**	0.19
	(0.26)	(-1.64)	(3.26)	
Dependency ratio	-0.013**	-0.036**	0.081**	0.01
	(-3.34)	(-3.42)	(4.10)	
Dummy, 1 if Married spouse present	0.031	0.014	0.021	0.02
	(0.27)	(0.34)	(0.02)	
Dummy, 1 if hh head is a women	-0.64**	-0.86**	0.82**	0.42
	(-8.24)	(-9.52)	(7.56)	
Dummy, if own a house	0.41**	0.59**	0.47**	0.44
	(7.21)	(7.10)	(6.11)	
Human Capital				
Ratio of Ill. and no RWA with hh size	-0.56**	-0.49**	-0.32**	-0.27
	(-3.42)	(-3.27)	(-2.96)	
Ratio of ill but RWA with hh size	0.121	0.097	0.101	0.02
	(1.35)	(1.23)	(0.19)	

[13] The magnitude of the education coefficients is enough to make the argument that investment in education by household is a rational choice in determining their future well being.

Variable Name	HH4	HH3	HH2	HH1
Ratio of Male ad. with primary ed. with hh size	0.87**	0.85**	0.63**	0.02
	(7.67)	(6.93)	(4.02)	
Ratio of Fem. ad. with primary ed. with hh size	0.98**	0.73**	0.45**	0.15
	(7.41)	(5.53)	(5.56)	
Ratio of Male ad. with secondary ed. with hh size	0.54**	0.35**	0. 23**	0.12
	(4.57)	(3.63)	(3.51)	
Ratio of Fem. ad. with secondary ed. with hh size	0.41**	0.38**	0.31**	0.36
	(5.44)	(4.30)	(4.13)	
Ratio of Male ad. with higher ed. with hh size	0.59**	0.67**	0.54	0.11
	(6.25)	(7.12)	(6.91)	
Ratio of Fem. adults with higher ed with hh size	0.34**	0.32**	0.02	0.31
	(5.72)	(6.08)	(1.32)	
Ratio of trained workers with hh size	0.45**	0.43**	0.52**	0.34
	(8.76)	(8.45)	(7.86)	
Employment				
Ratio of formal sector employees with hh size	0.21**	0.17**	-0.04	-0.03
	(3.82)	(4.12)	(0.56)	
Ratio of overseas employees with hh size	0.64**	0.61**	0.021	0.00
	(8.87)	(8.34)	(0.20)	
Ratio of self-employed with hh size	0.34**	0.26**	0.27**	-0.25
	(16.32)	(7.67)	(3.64)	
Ratio of Agr. workers with hh size	0.21	0.23*	0.09**	0.14
	(1.32)	(1.98)	(2.87)	
Ratio of inf. employees with hh size	0.32	0.26	0.19*	0.12
	(1.19)	(1.43)	(1.84)	
Ratio of unemployed with hh size	-0.14**	-0.39**	-0.46**	-0.34
	(7.25)	(7.91)	(8.10)	

Note: ** indicates significant at the 5 percent level and * indicates significant at the 10 percent level.

This suggests that illiteracy is a concern especially for vulnerable and poorer population strata more than the other groups.

3.6.2 Demographic Characteristics

The stage in life cycle of the household head is expected to have a significant effect in the economic well being of the household. The older the head of household, the more likely it is that the household is non-poor. Consistent with this expectation, we find a concave probability profile for the age of the household head on household status. The function peaks at age 40 and declines thereafter. There is no significant effect of the age of head of household on the other two alternatives though. In developing countries, in general, female headed households are more likely to be poor because of the limited work opportunities for women. This is exactly what we find from our results where female headed households are less likely to be non-poor and more vulnerable to poverty. We could not find a significant relationship of marital status with the well being of the household. The regression shows a strong and negative relationship of household size for non-poor households where head is

unemployed however it has positive significant coefficient with poor category. This indicates that as the family size increases, the likelihood of household to be non-poor declines and increases its vulnerability to poverty. The dependency ratio is also found to be positively related with poverty status and enhances household vulnerability to poverty with rise in the dependency ratio. The variable has statistically significant negative coefficient for non-poor households and positive for poor households. These findings raise the concern for the high exposure to poverty of children living in large households having higher dependency ratio.

3.6.3 Employment

The likelihood of being non-poor increases with the presence of overseas worker, employees of formal sector and those working as self-employed in the household. The coefficients of these variables are positive and significant for non-poor households irrespective of head's employment status. But for poor households, the coefficients are small in size and statistically insignificant showing that the formal sector and overseas employment does not affect the probabilities of poor households. This is because of the low ratio of such workers in the poor households. There is low probability for a worker of the poor household to be employed in the formal sector or in overseas market. However, the contribution of formal sector employees, self-employed and overseas workers in terms of income is highly relevant for non-poor and it reduces the vulnerability of the households to poverty significantly. The positive significant coefficient of self-employment for poor households with head employed shows the increase in the likelihood of being in poor households if some members are engaged in the self-employment activities. The chances of these members to be involved in low income activities are high which are not adequate to lift them out of poverty. The coefficients of agriculture and informal occupations are found positive but only significant for poor households with employed head. This indicates that the employment in the agriculture and informal sector does not significantly affect the well-being of households and increases their likelihood to be poor. The presence of unemployed in the household is negatively associated with household welfare for non-poor households and positive for poor households showing the likelihood of household falling into vulnerable situation with increase in the unemployment in the family. On the basis of the regression results, the increase in unemployment has a major negative impact on the poorest households. It is reasonable to suppose that a larger welfare loss will be experienced by the households hit by the unemployment shock.

3.7 Main Results and Policy Relevance

The results indicate that household demographic characteristics especially the household size, dependency ratio and females being head of the household increase the likelihood of families to fall into vulnerable situation. The results further suggest that employment along with human capital variables have a key role in reducing the vulnerability of the household to poverty. For poor families, it is reasonable to attribute the non-significance of the coefficient to the low skills endowment of individuals belonging to low population strata which imply low accessibility to well-

paid jobs (both in formal and informal sectors), whereas for richer households, the variable becomes a relevant livelihood source.

By looking at household members involved in income generating activities, the highest coefficient refers to overseas employment. The presence of such employees positively influences household consumption and significantly reduces their vulnerability to poverty. Same is the case for the formal (public and private) sector jobs and self-employment which significantly increase the likelihood of households to be in the non-poor households. The agriculture and informal sector employment are found to be increasing the likelihood of households to be vulnerable to poverty.

The findings of the study are very important for policy makers because it identifies factors increasing vulnerability of the households. A large number of Pakistani workers are involved in informal sector including agriculture and self-employment. Formal sector private and public sector jobs are limited which provide protection against sickness and old-age. The share of workers employed in the foreign markets is also high. The global financial crisis is having its impact through the employment. The immediate measures to coup with the impact of the financial crisis are to strengthen the existing social safety net systems and initiating crisis specific new programs.

Another important result is the effective role of income support program such as BISP in mitigating the adverse impact of global financial crisis at the household level. The data shows that BISP has successfully increased the consumption level at the household level and pulled many families out of poverty though temporarily. The immediate relief provided to the poor families through BISP is a good model for other countries caught up in the similar situation due to global financial crisis. The cost of such cash transfer program is however high and puts extra burden on the fiscal position of the country. It requires a long term strategy to finance such programs through increase in tax revenues or other sources.

SECTION IV

SOCIAL SAFETY NETS AND THE GLOBAL FINANCIAL CRISIS

Social protection can be described as the protection against risks. It could include almost everything that does to reduce the vulnerability of the individuals or families. Good village to market roads, for example, may lower the risk of poverty for villagers and good schooling may reduce the risk of poverty later in life for the good student. To distinguish social protection from other aspects of poverty reduction, we can think of it as consisting of special help to individuals and families or protection for particular categories of people those are vulnerable or at risk. These include people or households affected by the disasters, anticipated risks such as seasonal poverty, public health risks associated with the urbanization process, social ills such as dowry, and erosion of family-based safety nets.

Groups such as the elderly and the disabled, and victims of the uneven globalization process which may give rise to new categories of poor whether in terms of worker displacement, livelihood losses or victims of environmental disasters also

come under the definition of vulnerability. In general, following categories of people fall in the vulnerable situation,

- People who have no family support and would be unable to take part in any income-generating activities.
- Rural laborers working for little or no money and trapped in exploitative situations.
- The unemployed who would be able to work but have no opportunities.
- People in extreme poverty because of a life event such as illness, drug addiction or fire etc.
- People with low incomes sufficient to sustain themselves but not enough to escape poverty.
- Poor women and children who have needs that cannot be addressed by assistance through their household.
- Workers in the formal economy.

Vulnerable households can escape poverty, if only temporarily, help is provided to them at the time of need. The highest priority has to go to those who have no escape. The Pakistan PRSP tries to address this issue by defining people as "transitory" poor or non-poor if they fall within 25% above or below the poverty line. A person's income or consumption is not the sole factor in deciding whether a particular form of social protection would be a good intervention. For example, it is not appropriate to always give cash benefits to the poor because of problems of work incentives or difficulties in establishing what income people really have.

The Social Safety Net Programs (SSNPs) have been broadly categorized into two: Social Protection and Social Empowerment. The SSNPs address basic needs of the people namely food, shelter, education and health. Distressed people particularly women, children and disabled persons have been given priority under Social Safety Net programs. They are implemented through both non-development budget and development budget. Social protection encompasses: cash transfer allowances and food security. Social empowerment includes: stipends, housing, rehabilitation, micro-credit, and development programs. In this section social safety nets will be discussed along with some policy initiative for providing the coverage to newly vulnerable groups due to global financial slowdown.

4.1 Social Safety Nets in Pakistan

Official data reveals that only 6.62 million people out of the total labor force of over 50 million in Pakistan benefit from some form of social protection including social insurance, pensions and survivors' benefits. There is no scheme that specifically covers the workers in the informal sector such as home-based workers, employees in small unregistered factories or sub-contracted workers of large-scale manufacturing units. The official statistics indicate that out of 6.62 million workers are being provided with formal social protection, 2.8 million are covered by the Employees Old Age Benefits Institutions (EOBI) operating at the federal level and the Employees Social Security Institutions (ESSI) operating at the provincial level.

The coverage, nevertheless, is only for the private formal sector. The main social insurance schemes, EOBI, and PESSI, together cover less than three percent of the total employed workforce in Pakistan as only a small number of establishments with five or more workers are registered in these schemes. The number of workers deprived of social protection would further rise in coming years as a result of the changes in EOBI Act that has curtailed its applicability in the formal sector and rendered smaller establishments ineligible to register. The need for increasing the social protection coverage is now an important policy issue for the government.

4.1.2 Formal Sector Schemes

Social protection for people in the formal sector is currently provided through social insurance programs and other employer benefits. At present, there are several such programs operating in Pakistan but two main categories can be distinguished. The first category consists of the general government schemes that employers are required to contribute unless they have been specifically exempted by the legislation. Three of these schemes are;

- The Employees Old Age Benefits Institution (EOBI). A Federal body that provides age, disability and survivors pensions.
- The Employees Social Security Institutions. Provincial bodies (ESSIs) that provide health services and some cash benefits.
- The Workers' Welfare Fund. A Federal body that provides a range of small benefits to workers and provides educational and health facilities for workers.

Majority of workers in each of these schemes are covered by all three schemes but there are substantial differences in coverage. EOBI covers approximately 1.3 million workers, while the ESSIs cover only 850,000.

The second category consists of schemes that are specific to particular sectors or enterprises and are specifically exempted from membership of the general schemes. The main category exempted consists of government workers and members of the armed forces but there are a number of others.

4.1.3 Informal Sector Schemes

Government-funded social protection in the informal sector is largely social assistance. By social assistance, we mean programs that transfer money or goods to individuals that are not linked to contributions. They are usually, but not always, targeted at the poorest and means tested. The main organizations providing social assistance are Zakat and Bait-ul-Mal. These organizations provide a wide range of programs. Not all would be classified as social assistance but, for the sake of convenience, we describe all the functions related to social protection performed by these agencies. The type of assistance provided through Zakat and Ushr include Guzara Allowance (Rs500 per month paid for six months to eligible workers), Educational Stipends (paid to poor students in mainstream schools, colleges, polytechnics and universities), Health Care (Poor patients can get help with the cost of an operation or necessary medication), Social Welfare (consists of grants to social welfare institutions, largely those run by provincial welfare and labour departments to

pay the fees of *Mustahiq* getting vocational training), Marriage Assistance (dowry to deserving girls). The schemes of Zakat and Ushur also cover victems of Natural Calamities.

The other important institution helping needy households is Pakistan Bait-ul-Maal, a semi-autonomous organization within the Ministry of Women Development, Welfare and Special Education. Unlike Zakat, Bait-ul-Maal benefits are open to all regardless of creed. Also, unlike Zakat, the funds are entirely controlled by public servants. It has offices at provincial and district levels that are closely linked to, but not part of provincial administrations. Bait-ul-Mal's main programs of direct assistance to individuals are the Food Support Program, Individual Financial Assistance, National Centers for Rehabilitation of Child Labour, Vocational Training Institutes, Tawana Pakistan (school feeding program) and building of homes. Besides, the grants are provided to NGOs, institutional support for orphans, the disabled and abandoned and destitute women, and the aged. It also provides some grants for water supply. In the past, it has also completed a housing development for the poor in Sindh.

4.1.4 Benazir Income Support Program

The present government has launched the Benazir Income Support Program (BISP) with an allocated budget of PRs 34 billion (0.3 percent of GDP) to provide cash assistance of PRs 1000 per month to 3.4 million poor families in its first phase. In the second phase the amount has been increased to PRs 70 billion to provide assistance to seven million vulnerable families. These families were identified by the elected representatives of the area on the basis of their poverty status. These mostly include those who are being affected by the global financial crisis and slow down in the domestic economy due to the crisis. The design of the BISP, in particular the targeting of transfers and the delivery mechanism, was reviewed in the first half of 2009, in consultation with the World Bank. The new phase is now targeting the vulnerable families through poverty score card survey being conducted by World Bank first in nine districts and later all over the country.

4.1.5 Global Financial Crisis and Safety Nets

It has been increasingly realized that the government has to play a key role in the time of contingencies, shocks and hard economic situation to protect the vulnerable groups from the adverse affects of such conditions. The current financial crisis has given rise to increasingly more interest on social safety net programs. Added to the urgent need to revisit safety net issues is the ongoing debate over the optimal policy mix between the indirect growth oriented path to poverty reduction and the direct path of targeted transfers to the poor. Should all scarce resources be allocated so as to maximize economic growth, the benefits of which will eventually trickle down to the poor, or should a part of these resources be transferred to the poor to improve and maintain their living standards during the process of economic growth? A third option is to give the poor access to assets (such as land) that provide them with a source of economic growth based on their absolute advantage that is, labor.

Theoretically, cash transfers are preferred to in-kind transfers for minimizing distortions in the economy, but if the objective is to encourage the consumption of a particular commodity and if there are political objective that are better served through in-kind transfer then in-kind transfer is preferable. In addition, in-kind transfers, hold their real value during inflationary period. If safety net programs are properly chosen and designed, they can complement economic growth; otherwise they crowd out growth-promoting investments and private safety nets. Thus it is important to relate program choice to desired objectives and the nature of poverty, with a clear understanding of the potential constraints and trade-offs. For example with a high incidence of rural poverty where it is difficult to separate needy from non-needy households, cash transfers will be infeasible in terms of targeting and fiscal sustainability.

The economic crisis and the adjustment mechanism that has followed will have short term effects on the life standards of the vulnerable groups. The shrinking budgets are severely restricting the amount of the resources available for the social assistance. There is clearly an acute need to protect the new poor and the chronically poor by introducing social assistance programs or restructuring existing ones in ways that make them fiscally, politically, and administratively sustainable. There is no formula for providing the best or most appropriate and effective safety net programs, but in order to avoid the pitfalls and enhance the positive aspects of the program we have to ask what makes program work well and how could they be made work even better while designing any safety net program. In order to examine the appropriateness and efficiency of the safety net programs we need to examine how well were the poor reached? Were programs cost effective? Have there been any disincentive effects for food and labor supply?

4.1.6 Reforming Safety Net Programs

In the era of global financial crisis there is a need for expansion and redesigning of the the SSNPs. It appears that in general, there is relatively high leakage from these programs and despite popular assumptions they are not better targeted. The programs are very urban focused and have significant administrative leakages. Too many programs are run by too many Government departments and thus a large administrative overhead which can be reduced and used to provide benefits. There are also too many layers of decision making in selection of beneficiaries. Some of the weaknesses in safety nets programs are:

1. **Lack of an Integrated National Policy:** There is no integrated national policy for social protection and safety net programs based on a comprehensive and updated risk and vulnerability mapping. Often, the extent, nature and mechanisms of many safety net programs change with a change of government. There is also lack of integration and coordination among various safety net programs and providers. A number of ministries are involved in implementing and monitoring safety net programs. Many are funded with donor money. Budgetary provisions are ad-hoc and given as block allocations.
2. **Limited Coverage of Safety Net Programs:** Though SNPs have played a role in mitigating poverty, their coverage remains limited given the magnitude of extreme poverty that exists in the country. Furthermore, SNPs cover mainly the rural poor,

whereas the nature of urban poverty is more severe than rural poverty in certain respects.

3. **Missing Poor and New Vulnerabilities**: Current social safety-nets also lack coverage of specific socially excluded and marginalized groups. Some groups living in extreme poverty for years together. Farmers, particularly the small farmers, are exposed to large-scale vulnerability due to various natural uncertainties, price fluctuation and low price of output. This may be exacerbated by the globalization process. If prices suddenly fall due to large-scale imports, there are no means to protect these farmers. There is also a lack of understanding of the poverty implications arising from globalization-induced shocks and their gender dimensions for the garment sector.
4. **Insensitivity to Geographic and Agro-Ecology Specific Poverty:** The nature of extreme poverty varies with variations in geography and agro-ecology. Separate safety net programs are needed to alleviate poverty arising from area specific problems like river erosion, salinity and arsenic pollution. Geographic targeting taking these characteristics into account is still lacking.
5. **Inadequacy of the Amount of Transfers:** Almost all beneficiaries of the Old Age Pension Scheme reported that during old age, health care is a basic need and for this a more substantial amount of money is required every month. About 97 percent of the beneficiaries reported the amount of allowance as inadequate. The dissatisfaction related to micro-credit disbursements is also universal.
6. **Inadequacies of Poverty Criterion:** For all the safety net programs, the poor have been identified mainly on the basis of land ownership and income criteria. It is possible to identify the poor with respect to various socio-economic characteristics such as land ownership, income, housing condition, food security and consumption expenditure. The use of these characteristics should be applied, based upon the particular focus of the safety net program subject to the provision that they should not be too complex to understand and apply.
7. **Inadequate understanding of the Gender Dimension of Poverty:** In the existing safety net programs, the gender dimension of poverty has been addressed inadequately. All the safety net programs undertaken for women addressed their income poverty whereas social and psychological poverty is pervasive among women. Human poverty, particularly health poverty, is more acute in case of women but there is no safety net program addressing the health insecurity of poor women. Access to education and skill training is highly restricted to poor women but no women-focused safety net program was undertaken to provide education to girl children of poor families.
8. **Gender specific risks and insecurity in the labour market are also by-passed by the existing safety net programs.** Poor women-workers face specific risks and insecurity. Risk of violence is also rampant for them in the workplace. Safety net programs addressing these risks and insecurities are inadequate both in number and magnitude.
9. **Targeting and leakages:** Despite the successes in safety net programs, there have been causes of concern on several counts. There have been various administrative problems obstructing the smooth running of the programs. Targeting has been off the mark in some of the programs. In some cases, leakages have been more of a problem than targeting. Also in-kind transfers such as food may have depressed prices somewhat, and this could be a disincentive to small producers.

A number of areas are identified in the official documents for the development of effective SSNPs. Given that the expenditure on safety net programs is less than one percent of GDP, an increase in the allocation for social assistance programs is warranted. However, it is difficult to be prescriptive about how big this should be. Safety net programs have an important role to play. The challenge is to base program choice on an effective and updated risk and vulnerability mapping and ensure that chosen programs serve both to limit total cost and reduce opportunity cost. Based on the experiences of other countries in the implementation of safety/social assistance programs, a number of steps can be taken. These include:

1. A coherent and integrated national social protection policy based on a comprehensive mapping of existing and emerging vulnerabilities needs to be developed. This policy will have to decide upon what to include and what to exclude for public action. Particularly, the variety of social assistance and the social insurance programs that may be undertaken over phases needs to be clarified.
2. Coverage of existing programs which have proven track records can be expanded. For example, the Rural Maintenance Program (RMP) needs to be continued. The old age pension scheme may also be expanded in phases.
3. The labour laws that already have provisions for several types of social insurance related to employment need to be reviewed by a body composed of government representatives, employers, employee unions and other stakeholders. These laws should be further strengthened and implemented. A strong regulatory role by the Government may be needed.
4. Rigorous evaluation of current SNPs to identify weaknesses and improve their effectiveness will have to be undertaken.
5. Programs need to be developed which address emerging vulnerabilities such as urban poverty, livelihood loss due to economic integration and policy reforms, and disadvantaged groups not covered by existing SNPs.
6. Holistic strategy needs to be developed to provide long-term solutions to entrenched problems such as seasonal poverty in northern districts and other affected areas.
7. Introducing health and nutrition related assistance programs towards reducing maternal mortality and improving child nutrition. An active exploration of a viable school meal program will be a priority.
8. Facilitating the growth of insurance programs targeted to the poor and vulnerable groups as viable alternatives for their social protection needs. In addressing all of the above, gender concerns will have to be accommodated as a matter of priority.

Consideration could be given to

(i) establishing a clearing and designing house for keeping track and coordinating optimal utilization of scarce resources by avoiding duplication and dovetailing programs so that the needs of the special groups may be catered to;

(ii) minimizing the number and improving the accountability of intermediaries who are involved in administering safety net programs;

(iii) establishing a standing arrangement for monitoring and overseeing the development and implementation of policies and programs for safety net programs;

(iv) coordinating the views and activities of the government and non-government organizations in SSN areas;

(v) outsourcing responsibility for implementing safety net programs at the local level;

(vi) introducing periodic evaluation of programs to throw light on what is working and what is not; and

(vii) allowing for reform and consolidation of programs where needed.

Apart from these, one important aspect of safety net programs demanding improvement is the "regional disparity" issue. Uneven distribution of wealth and variation in poverty incidence between regions has to be incorporated in targeting the poor. Employment creation in under-developed areas in a more permanent basis should be emphasized.

SECTION V

CONCLUDING REMARKS

The adverse impact of the global financial crisis has penetrated the real sector and trickled down to the household sector. The crisis impact on the household sector has affected the country's progress in poverty alleviation and employment generation, and has created new dimensions of these issues with increased vulnerability of the social groups. The issue needs to be taken into consideration in the context of redirected development strategies and the policy framework of the country. The government placed emphasis on domestic agriculture and rural development, and increased government intervention in the economy. In addition, the government increased public spending and raised expenditure on transfer payments to households and on welfare expenditure. These changes in the development strategies and policy frameworks of these countries, though not sustainable in the long-run, have mitigated at least to a certain extent the crisis impact on households.

It was evident that the crisis impact on poverty and unemployment is different across different sectors. The urban poor who were pushed further below the poverty line appear to be affected more by the crisis than the rural poor. If not for the increase

in daily wages in the urban sector and the rise in world market prices of export crops in the past few months, the poverty and unemployment impact of the crisis on poor would have been devastating. In the face of the crisis, the rural sector has also benefitted from the increased government assistance to domestic agriculture during the past few years.

In spite of all above, there are serious poverty and unemployment implications of the crisis. This problem arises mainly due to the loss of output and employment in many production sectors which are integrated with the world economy. As many industrial and service sectors unlike domestic agricultural activities suffered due to the crisis, the loss of jobs, work and income has produced adverse effects on households directly and indirectly. Therefore, the crisis has created new poor and vulnerable groups, who were not considered to be poor or unemployed prior to the crisis. For the same reason, these new social groups vulnerable to the crisis impact have no formal access to the existing safety net programs of the country.

The discussion points to the fact that there is a need to strengthen the SSNPs in the country in order to face the challenges of global economic crisis. Evidently, poverty reduction is not confined to, rather supplemented by, safety nets. However, safety nets undoubtedly are vital options to fight damages from natural disasters as well as from external economic shocks like the on-going global economic crisis to prevent transmission of poverty from generation to generation in the long run. While on one hand the safety nets provide immediate relief during emergencies, by ensuring employment, education and nutritional intake of the poor, these programs can often play leading role in addressing poverty and inequality in the long run. Success of any such attempt will depend on how, where and for whom the government decides to design the safety net programs.

Almost country's most extensive targeted safety nets cover the poverty alleviation program and the subsidy program for rural farmers. In addition, the extensive welfare programs such as free health care, free education and administered and subsidized price schemes also derive benefits to the poor as well as to others. The poor targeting and unproductive nature of spending appear to be the main weakness in both targeted safety net programs and general welfare programs. Given the serious fiscal limitations due to both the internal developments resulting in increased spending and the adverse impact of the crisis resulting in revenue contraction, there is little room for further expansion of the safety net programs. What is more important is the improvement in targeting of the safety net programs with the identification of the new vulnerable groups.

When the official poverty line is considered in identifying the poor, more than half of the people who are currently benefiting from the relief programs do not appear to be eligible for safety net under the poverty alleviation programs. In addition, the new poor and vulnerable people emerged due to the loss of work, employment and income need to be identified in order to extend the safety net. While streamlining the existing

poverty alleviation program, it could be supported further by improving the effectiveness and efficiency of public spending by cutting down unproductive expenditure. This is important not only in respect of releasing public expenditure on more productive use but also in improving the long-term sustainability of fiscal management.

In case of Pakistan, it is in the process of finalizing development instruments for its next planning cycle; the Poverty Reduction Strategy Paper-II, has an ambitious agenda for a range of interventions for protecting the vulnerable households. The Medium Term Development Framework 2010-15 is also in the pipeline and inputs are solicited for an agenda setting exercise to recast its vision. All these strategic planning tools will need resources for implementation and it appears that our resource realities will not be able to support the plans, these instruments aspire to deliver. Within this financially constrained milieu, there are a number of imperatives for the government in terms of planning and ensuring financial allocations for a social protection. The first priority should be to synchronize planning and to review various national development strategies and associated operational frameworks. To increase the effects of growth on poverty, there is a need to pursue policies that can affect the poor directly by reducing income inequality, inflation, access to credit in particular micro credit, raising educational achievement and better health facilities for the poor.

REFERENCES

FAO, (2008). *The State of Food and Agriculture in Asia and the Pacific Region,* Bangkok.

Fallon, Peter R. and Robert E. B. Lucas, (2009). *The Impact of Financial Crises on Labor Markets, Household Incomes, and Poverty: A Review of Evidence,* The World bank, Washington, D.C.

Ferrari, A., G. Jaffrin, and S. R. Shrestha, (2007). *Access to Financial Services in Nepal*. Conference Edition. World Bank,Washington, D.C..

Gautam, Bharat R., (2007). *Governance, State Capacity and Poverty Reduction"*, Paper presented at the Annual Conference of the Norwegian Association for Development Research, Christian Michelsen Institute, Norway.

Gwartney, J. and Lawson, R. (2009), *Economic Freedom of the World: 2009 Annual Report*, Fraser Institute, Vancouver, BC

Gulati, Ashok, Shenggen Fan (eds), 2008. *The Dragon and the elephant: agricultural and rural reforms in China and India,* Oxford University Press, New Delhi.

IMF (2009), *Press Release No 07/373*, (July 24), International Monetary Fund, Washington DC

Kantipur Daily, September 10, 2009.

Kang, Sung Jin, (2004). *Are private transfers crowded out by public transfers? The case of the developing economies,* http://dx.doi.org/10.1111/j.1746-1049.2004.tb00248.x visited on Tuesday October 13, 2009.

Khan, Azizur Rahman, (1997). *Macro-economic Policies and Poverty: An Analysis of the Experience in Ten Asian Countries*, paper written for Asian Regional Policy Workshop on Macro Policies and Micro Interventions for Poverty Alleviation, 5-7, February, Washington, D.C.

Morduch, Jonathan and Manohar Sharma, (2001). *Strengthening Public Safety Nets: Can the Informal Sector Show the Way?* International Food Policy Research Institute, Washington, D.C.

Quisumbing, A. (2007). 'Poverty transitions, shocks, and consumption in rural Bangladesh: Preliminary results from a longitudinal household survey'. CPRC Working Paper No. 105. Manchester: Chronic Poverty Research Centre.

Schwab, K. (2009), *Global Competitiveness Report*, World Economic Forum, Geneva

World Bank (2009), *Doing Business 2009*, Washington DC

World Bank (2008), *World Development Report 2008*, Washington DC

World Bank, (1995). *Poverty Reduction and The World Bank: Progress in Fiscal 1994,* Washington, D. C.

World Bank, (1997). *Safety Net Programs and Poverty Reduction: Lessons from Cross Country Experiences,* Washing

Yap, Josef T. (2007). *Ten years After: Financial Crisis Redux or Constructuve Regional Financial and Monetary Cooperation?* Discussion Paper Series No. 2007-05, Philippine Institute for Development Studies.

ANNEXURE 1

Variables Contained in the PHVS Questionnaire

Section 1: Household Roster

Place of residence
Relationship to the head of household
Sex
Age (in completed years)
Religion
Marital status
Literacy and level of education
Type of school and medium of instruction
Vocational/technical education
Migration status
Place from where moved in
    Period of movement
    Place where moved out

Section 2: Employment and Earnings

Activity status
Employment status
Industry status
Occupational status of main job
Occupational status of secondary job
Number of hours worked on main job
Number of hours worked on secondary job
Total work experience
On the job training
Downsizing/privatization and unemployment

Labor market earnings from first job
Labor market earnings from the second job
Earnings from other activities
Pension and social security

Section 3: Household Expenditure

Food
Clothing and Footwear
Fuel and Lighting
Transport
Housing
Household Effects
Personal Effects
Recreation
Medical
Education
Miscellaneous Items
Durable Goods

Section 4: Ownership of Durable Items of the Household

Bicycle
Radio
Television
Video Cassette Recorder
Sewing Machine
Knitting Machine
Washing Machine
Electrical appliances
Camera
Refrigerator
Gas stove
Car / Jeep
Motor cycle/scoter
Personal Computer
Air-conditioner
Other items

Section 5: Transfer Income

Zakat, User, Nazrana, or Fitrana
Domestics and Foreign Remittances
Assistance from Government / Other Sources
Grants / Inheritance
Pension

Section 6: Ownership of Land and Property

Expected Value of Property and land
Rent form Property and Land
Value of the Property Sold
Value of the property Purchased
Money spent on renovations
Value of the Property or land Received as Gift
Value of the Property or land Lost

Section 7: Financial Assets and Liabilities

Total bank Deposits
Total savings
Total Interest / Profit Received
Total Withdrawal
Total Securities, Types and Value
Profit / Interest on Securities
Total Loans to Pay
Amount Paid
Amount Remains
Time Period for payment and Interest Rate
Purpose and Institution From which Loan Received
Life Insurance
Annual Installments and Duration
Total Payment Made
Provident Fund
Annual Contribution
Balance

Balance Sheet

Total Income
Total Expenditure
Income / Expenditure Ratio

Section 8: Household Shock

Present occupancy status
Number of rooms
Source of drinking water
Sanitation system
Type of toilet facilities
Garbage collection

Agricultural Establishments (Sub-Module)

Agricultural land ownership
Land rented out
Land rented in
Harvesting of different crops during the last year
Livestock
Agricultural operating expenses during the last year
Persons working and labour costs
Hand tools ownership

Non-Agricultural Establishment (Sub-Module)

Major activity of the business
Persons working during the last working month
General operating expenses and revenues
- Manufacturing
- Mining and quarrying
- Service related business
- Transport
- Wholesale and retail trade
- Hotels and restaurants
- Construction

Land, building, equipment and other items owned

ANNEXURE 2

Descriptive Statistics (Mean and standard Deviation) of Regression Variables

Variable Name	All Households	HH1	HH2	HH3	HH4
Per Capita Monthly Consumption Expenditure	1649.25	581.31	1056.54	2364.36	3321.72
	(5.20)	(3.51)	(8.81)	(7.26)	(9.73)
Persons 0- 14 years old	0.274	0.366	0.294	0.231	0.172
	(0.61)	(0.74)	(0.68)	(0.46)	(0.54)
Males 15-60 years old	0.857	1.386	1.096	0.879	1.371
	(0.84)	(0.87)	(0.72)	(0.87)	(0.85)
Females 15-60 years old	1.109	1.175	1.501	1.209	1.153
	(0.78)	(0.85)	(0.94)	(0.65)	(0.78)
Persons above 60 years old	0.993	0.278	0.150	0.321	0.028
	(0.76)	(0.43)	(0.54)	(0.76)	(0.82)
Household size	7.031	7.812	7.374	6.548	5.543
	(0.65)	(0.65)	(0.75)	(0.65)	(0.52)
Dependency ratio	0.762	0.735	0.425	0.348	0.213
	(0.51)	(0.56)	(0.54)	(0.52)	(0.41)
Dummy, 1 if hh head is a women	0.021	0.025	0.021	0.018	0.012
	(0.41)	(0.35)	(0.41)	(0.37)	(0.42)
Age of household head	52.341	56.569	55.664	55.136	54.858
	(13.85)	(13.75)	(14.68)	(13.18)	(13.17)
Age Square of household head	3121.31	3338.81	3317.35	3232.05	3181.191
	(1351.24)	(1552.25)	(1660.6)	(1528.73)	(1461.27)
Ratio of Ill. and no RWA with hh size	0.672	0.845	0.823	0.692	0.565
	(0.20)	(0.26)	(0.23)	(0.21)	(0.19)
Ratio of ill ad. but RWA with hh size	0.255	0.028	0.075	0.126	0.260
	(0.36)	(0.32)	(0.36)	(0.36)	(0.36)
Ratio of Male ad. with primary ed. with hh size	0.116	0.000	0.000	0.093	0.178
	(0.16)	(0.00)	(0.00)	(0.16)	(0.16)
Ratio of Fem. ad. with primary ed. with hh size	0.105	0.000	0.000	0.011	0.195
	(0.18)	(0.00)	(0.00)	(0.17)	(0.21)
Ratio of Male ad. with secondary ed. with hh size	0.189	0.000	0.00	0.017	0.201
	(0.22)	(0.00)	(0.00)	(0.20)	(0.21)
Ratio of Fem. ad. with secondary ed. with hh size	0.160	0.000	0.000	0.011	0.178
	(0.21)	(0.00)	(0.00)	(0.01)	(0.22)
Ratio of Male ad. with higher ed. with hh size	0.046	0.000	0.002	0.034	0.047
	(0.13)	(0.00)	(0.01)	(0.11)	(0.11)
Ratio of Fem. adults with higher ed with hh size	0.012	0.000	0.011	0.015	0.029
	(0.10)	(0.00)	(0.05)	(0.03)	(0.13)
Ratio of trained workers with hh size	0.110	0.000	0.000	0.041	0.173
	(0.12)	(0.00)	(0.00)	(0.32)	(0.42)
N of overseas employees with hh size	0.074	0.000	0.001	0.131	0.219
	(0.65)	(0.00)	(0.02)	(0.34)	(0.87)
N of unemployed with hh adults	0.141	0.234	0.180	0.159	0.122
	(0.23)	(0.26)	(0.25)	(0.28)	(0.27)
N of self-employed with hh adults	0.026	0.023	0.041	0.033	0.029
	(0.12)	(0.06)	(0.07)	(0.06)	(0.11)
N of Agr. workers with hh adults	0.173	0.238	0.197	0.064	0.015
	(0.15)	(0.14)	(0.17)	(0.17)	(0.15)
N of inf. employees with hh adults	0.055	0.053	0.041	0.059	0.057
	(0.19)	(0.18)	(0.15)	(0.18)	(0.17)
N of public employees with hh ad.	0.188	0.000	0.036	0.156	0.203
	(0.27)	(0.00)	(0.55)	(0.37)	(0.62)
N of formal private employees with hh ad.	0.03 1	0.000	0.001	0.025	0.352
	(0.21)	(0.00)	(0.10)	(0.11)	(0.17)
Dummy, if own a house	0.640	0.002	0.024	0.245	0.739
	(1.25)	(1.06)	(0.75)	(1.59)	(0.98)
Dummy, 1 if Married spouse present	0.895	0.912	0.936	0.921	0.952
Dummy, 1 if living in urban areas	0.355	0.341	0.395	0.532	0.647
Dummy, 1 if living in Punjab	0.293	0.183	0.185	0.261	0.324
Dummy, 1 if living in Sindh	0.265	0.26 1	0.201	0.207	0.268
Dummy, 1 if living in NWFP	0.180	0.371	0.269	0.167	0.126
Sample size (households)	1000	54	253	562	131

The study has been carried out under the 11th Round of the SANEI Regional Research Competition (RRC) made possible with a financial grant from the Global Development Network (GDN).