In Search of
Gendered Development
A Compendium

Edited by
Kaiser Bengali

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FOREWORD

Gender equality is not only a basic human right, but its achievement has enormous socio-economic significances. Empowering women fuels thriving economies, spurring productivity and growth. Yet, gender inequalities remain deeply entrenched in every society.

UN Women - the United Nations Entity for Gender Equality and the Empowerment of Women, established in July 2010 - is committed to the advancement of women's human rights and places their realization at the centre of its work. Women confront manifold violations of their human rights - when they cannot participate in the decisions that affect their lives or claim fair political representation, when they face discrimination in employment, when they are denied entitlement to land and property, or when they suffer violence within their own home. Other obstacles to rights arise when women and girls are prevented from going to school or attaining health care, or are subject to harmful traditional practices.

UN Women places women's human rights at the centre of all its efforts and ensures that commitments on gender equality and women's empowerment is translated into action. It works around a number of specific outcomes that express the need to: (i) address structural and deep rooted issues through strengthened national and provincial government capacities for fulfilling their commitments through laws, policies and institutional frameworks to promote gender equality and the empowerment of women; (ii) enhance institutional capacity of stakeholders, who are on the forefront of human rights and gender and social justice, to deliver on international and national commitments; (iii) integrate human rights of marginalized and excluded populations through enhanced competences of institutions and promote equal opportunities for women, girls and excluded groups to access and use social services, employment and economic opportunities, human security including preventing crimes of violence, and disaster preparedness and response; and (iv) generate and produce disaggregated data and statistics for gender sensitive policy making and service delivery.

I take the opportunity to quote the UN Secretary General's message on the occasion of the International Women's Day 2014, "Countries with more gender equality have better economic growth. Companies with more women leaders perform better. Peace agreements that include women are more durable. Parliaments with more women enact more legislation on key social issue, such as health, education, anti-discrimination and child support."

This publication will be useful as a reference tool for evidence-based advocacy and informed planning, programming and budgeting, towards realization of gender equality and the empowerment of women in line with Pakistan's national and international conventions and commitments on gender equality and human rights. In this context, I would like to take this opportunity to congratulate the Gender Research Programme of the Social Policy Development Center, for their efforts in publishing this valuable Compendium.

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PREFACE

This Compendium is a result of the research undertaken and published between 2009 to 2013 under the Gender Research Programme of Social Policy and Development Centre (SPDC). The programme was developed to factor in gendered perspectives in hardcore economic issues as well as social progress-engine concepts of development in the research and policy analysis. It is important to add to the research in Pakistan on the gender aspects of social and economic policies by developing quantitative and qualitative data, including gender disaggregated statistics and indicators.

Although Pakistan ranked at the bottom in the Gender Gap Index (Global Gender Gap Report 2012) and despite its overall poor gender empowerment indicators, research on gender has not been adequate. Notwithstanding the good quality research and reports generated by non-governmental organizations and research institutions, most such endeavors have focused on micro and meso-levels. National level studies are frequently an amalgamation of official statistics with focus on local manifestations of relevant issues. Interrogations of patriarchy have generally zeroed affect on customary practices that victimize women and on laws that discriminate against them. Some research has explored the political economy behind certain practices and laws, but the national political economy is yet to be critically examined through a gendered lens.

The literature produced globally, particularly in the twentieth century has helped in understanding the important linkages that exist between gender and macroeconomy. Frequently referred are Marilyn Waring, Nilufer Cagatay, Diane Elson, Caren Grown, Margarat Lewis and Laskey Aerni, among several others. Their work has helped in juxtaposing gender into the realm of macroeconomic policy making based on the premise that it has its social consequences. It is these social contents of economic policies that continue to affect the balance of power across varied social groups. Unfortunately, the consequential repercussions remain under-theorized in Pakistan.

The simplistic view of public policy and the power asymmetries at the societal level, on the one hand, and the tendency of the bureaucracy to institutionalize the power asymmetries attached to gender difference, on the other, only result in making the challenge more daunting. The approach and the policies are also not gender-neutral. Such critique of economic policy reform at the macro level questions how economic policy treats the interdependence between the productive economy and the reproductive economy, between making a profit and meeting needs, and between covering costs and sustaining human beings. Gender, thus, becomes the continuation of a political strategy of extrapolating relational inequities on existing discourse to urge policy makers to take account of the economic costs of ignoring the gender bias. So far public interventions have tended to exacerbate private biases.

In Pakistan, traditional participation of women in economic activities has remained low. It is the social paradigm of the country which continues to influence their role in the society and family and has been instrumental in preventing their participation in the

workforce. The existing social structure discourages and negates women empowerment including in employment, education, trade or any other type of benefit reaching them – whether during normal or emergency times such as floods. The marginal improvement noticed in the conditions of women is mainly due to the expansion of civil society organizations and international non-governmental organizations working for the uplift of females or those that are involved in development programmes for women.

The Compendium deals with a cross-section of issues from public spending on education and health to trade liberalization and gender dynamics of employment; from socio-economic characteristics of female headed households to gender differentials of rural non-farm employment; from gender dimensions of development induced displacement and resettlement to the socio-economic impact of floods in District Thatta. The two research reports that have not been included in this compendium, but have been undertaken and completed under the same programme are: Gender Dimensions of Social Safety Nets: The Case of Zakat Recipients in Pakistan and Living and Working Conditions of Female Domestic Workers in Pakistan. The former study was not included because later developments, particularly changes in the social security provision regime, rendered the analysis obsolete, while the latter is yet to be finalized and disseminated.

Several of the researches that are included in the Compendium are pioneer works. It is earnestly hoped that the researches undertaken would not only help policy makers, along with other stakeholders, in effectively addressing existing and emerging issues, but also open new avenues for researches in the future.

Prof. Dr. Khalida Ghaus
Managing Director

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List of Boxes

List of Charts

ACRONYMS

ADF	Augmented Dickey Fuller
AERC	Applied Economics Research Centre
AP	At Present
APEC	Asia-Pacific Economic Cooperation
ATD	At the time of Displacement
ATR	At the time of Resettlement
BHU	Basic Health Unit
BISP	Benazir Income Support Program
BPFA	Beijing Platform for Action
CBOs	Community Based Organizations
CCI	Council of Common Interest
CDGK	City District Government Karachi
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CGE Model	Computable General Equilibrium Model
CNIC	Computerized National Identity Card
CPI	Consumer Price Index
CrPC	Criminal Procedure Code
CSW	Commission on the Status of Women
CZC	Central Zakat Council
DHS	Demographic and Health Survey
DIDR	Development Induced Displacement and Resettlement
DOTS	Directly Observed Treatment Strategy
ECOSOC	United Nations Economic and Social Council
EFA	Education For All
EIA	Environmental Impact Assessment
EPI	Expanded Program on Immunization
EPZ	Export Promotion Zone
ERP	Effective Rate of Protection
ESR	Education Sector Reforms
Fata	Federally Administered Tribal Areas
FBS	Federal Bureau of Statistics
FGDs	Focus Group Discussions
FHH	Female Headed Households
FIR	First Information Report
FSP	Food Support Program
FWO	Frontier Works Organization
FY	Fiscal Year (July 1 to June 30)
GDBIA	Gender Disaggregated Benefit Incidence Analysis
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GoP	Government of Pakistan
GRAP	Gender Reform Action Plan
GRBI	Gender Responsive Budgeting Initiative
GRP	Gender Research Programme
HEC	Higher Education Commission

HIES	Household Integrated Economic Survey
ICT	Islamabad Capital Territory
IDB	Inter-American Development Bank
IDP	Internally Displaced People
IGTN	International Gender and Trade Network
ILO	International Labour Organisation
IMF	International Monetary Fund
IRR	Impoverishment Risk and Reconstruction
IWGGT	Informal Working Group on Gender and Trade
JPMC	Jinnah Postgraduate Medical Centre
KESC	Karachi Electric Supply Company
KPK	Khyber Pukhtoonkhwa
KW&SB	Karachi Water and Sewerage Board
LCZs	Local Zakat Committees
LERP	Lyari Expressway Resettlement Project
LEW	Lyari Expressway
LFP	Labour Force Participation Rate
LFS	Labour Force Survey
LHV	Lady Health Visitor
LHW	Lady Health Worker
MCH	Mother and Child Health
MDGs	Millennium Development Goals
MENA	Middle East and North Africa
MFA	Multi Fibre Agreement
MHHs	Male Headed Households
MLO	Medico-Legal Officer
MoE	Ministry of Education
MoWD	Ministry of Women Development
MRI	Magnetic Resonance Imaging
MTDF	Medium Term Development Framework
NCR	National Centre for Rehabilitation of Child Labour
NCSW	National Commission on the Status of Women
NEMIS	National Education Management Information Systems
NER	Net Enrollment Rate
NFBE	Non Formal Basic Education
NGOs	Non Governmental Organizations
NHA	National Highway Authority
NPA	National Plan of Action for Women
NTB	Non Trade Barrier
NWFP	North West Frontier Province
NZF	National Zakat Foundation
OPD	Outpatient Department
PBM	Pakistan Bait-ul-Mall
PDS	Pakistan Demographic Survey
PES	Pakistan Economic Survey
PIHS	Pakistan Integrated Household Survey
PIMS	Pakistan Institute of Medical Sciences
PLSMS	Pakistan Living Standard Measurement Survey

PP	Phillips-Perron
PPC	Pakistan Penal Code 1860
PRSP	Poverty Reduction Strategy Paper
PSLM	Pakistan Social and Living Standards Measurement
PSLMS	Pakistan Social Living Standard Measurement Survey
PSU	Primary Sampling Unit
RBM	Roll Back Malaria
RCC	Reinforced Concrete Cement
RHC	Rural Health Center
ROW	Right-of-Way
SADs	Single Approach Designs
SAP	Structural Adjustment Program
SH	Shelter Home
SPDC	Social Policy and Development Centre
SRO	Statutory Regulatory Order
SSGC	Sui Southern Gas Company
SSN	Social Safety Nets
TB	Tuberculosis
UC	Union Council
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
URC	Urban Resource Centre
US	United States
VAW	Violence against Women
WDD	Women Development Department
WTO	World Trade Organization

Introduction

Aggregates are useful in depiction of overall scenarios or situations; however, they also conceal information with regard to components within the aggregates, i.e., income groups, regions, gender, etc. For example, a discussion of aggregate income fails to reveal information regarding the distribution of income inter-personally and inter-regionally. With regard to gender, aggregate data tends to render women invisible.

The invisibility of women has had far-reaching and deep impact on women's welfare and rights over centuries – and continues to do so. Budgets allocate growing amounts to public expenditure, but it is unclear whether and to what extent such outlays benefit men and women differentially. Many productions processes are carried out manually by women. However, where machines are introduced to automate production, men man the machine. Mechanization does lead to greater efficiency, which is lauded; however, the women who are rendered unemployed as a result are just ignored. And so on.

However, there are a range of other areas where men and women are affected in varying ways. To take an example far from economics, political rivalry and conflict scenarios usually find men pitched against each other and the ensuing violence generally claim men as direct casualties. The events attract high pitched media coverage and invite public eulogizing of victims. However, the womenfolk and the children who are bereaved as a result remain silent sufferers hidden from public glare. They are left behind to pick up the pieces to put their lives together, manage a living and care for the children. It is, thus, critically important to focus attention on different aspect of life in terms of disaggregated effects on women and men, so that women's interests, problems and rights are not overlooked by default.

This book – a collection of gender-specific studies, carried out over the years 2010 to 2013 – attempts to throw light on women in various aspects of development activity. Comprising a total of eight studies, two of them address gender dimensions of demography, income, consumption, asset ownership, housing, education and health; two analyze issues relating to women's employment – one, arising from trade liberalization and, the other, with respect to the rural non-farm economy; two examine gender dimensions of displacement – one, in urban and, the other, in rural context; and two highlight issues of women's vulnerability – one, in terms of violence against women and the other in terms of the body of laws dealing with women workers and with protection of women.

The gendered treatment of a range of issues brings forth the fact that policymaking in aggregate terms tends to leave out aspects that affect women and, as such, an explicit gendered view is necessary. All the studies included in the book reveal that women are vulnerable and subject to implicit, and often, explicit, discrimination; which is, largely, a

function of archaic traditional socio-cultural values ingrained by feudal-tribal norms and compounded by religion.

Chapter 1 lays out the landscape with regard to female-headed (FHH) and male headed (MHH) households and powerfully highlights the disadvantages that the former face with respect to the latter in almost every aspect. Illiteracy among female household heads is more than twice that of male household heads and unemployment among female household heads is 5.5 times higher in urban areas and 4 times higher in rural areas.

Average household income in FHH is about 15 percent lower than in MHH. While nearly half of urban FHH are in the Rs. 0 – 10,000 monthly income bracket, the share of urban MHH is one-third. Among rural households, 62 percent of FHH and 52 percent of MHH are in this low income bracket. On the other hand, 27 percent and 33 percent of urban FHH and MHH, respectively, are in the Rs. 20,000 – 40,000+ bracket. The respective shares of rural FHH and MHH are 14 percent and 18 percent.

In rural areas, more than two-thirds of households are landless; however, landlessness is relatively skewed against FHH, with nearly 90 percent of FHH and 70 percent of MHH with no land ownership. FHH own house ownership is 7 percent lower than MHH. In terms of housing facilities too, FHHs appear to be underprivileged. Significantly fewer FHHs have in-house water supply than MHHs, with the difference more pronounced in urban areas; more FHHs are bereft of any sewerage facility than MHHs, with the difference significantly more marked in rural areas; and more FHHs than MHHs heads possess telephones, with the difference more prominent in rural areas. Among the poorest 20 percent households, the percentage of FHH that consume three meals a day is about three-fourths of MHHs in urban areas and one-sixth of MHHs in rural areas.

Among the poorest 20 percent of households again, nearly 80 percent of FHH cannot afford expenses for education, compared to 62 percent for MHH. Similarly, 24 percent of FHH cannot afford health related expenses, compared to 7 percent of MHHs.

Chapter 2 provides a detailed account of the gendered benefit incidence of public expenditure in education and health. The analysis for education shows that the benefit incidence at the primary, secondary and tertiary levels in all provinces is higher for males for all income groups and for both years under investigation. However, the differences in male-female benefit incidence have narrowed in 2010-11.

There are inter-provincial differences though. In Punjab, secondary level benefit incidence for the lower middle income group has improved further in favour of males. At the tertiary level, benefit incidence has moved in favour of females for all income groups; albeit marginally. In Sindh, the benefit incidence has improved further in favour of males for the poor at the primary level and for the rich and the middle income brackets at the secondary level. And in Khyber Pakhtunkhwa, the benefit incidence has improved further for males at the tertiary level for the upper middle income bracket. In Balochistan, there has been the most progression in favour of males; with enhancement of benefit incidence at the primary level for the rich, upper middle and poor income brackets, at the secondary level for the rich, upper middle and lower middle income groups, and at the tertiary level for the upper

middle group. The above result pattern is corroborated by the distribution of per capita subsidies. Subsidies are higher for males for all income groups and all three levels.

The analysis for health shows that the need for health services is greater for females for all income groups and for both years under study; with the difference between female-male need higher in Khyber Pakhtunkhwa and highest in Balochistan. The need differential has increased between 2004-05 and 2010-11 in all provinces: marginally in Punjab and significantly in Sindh.Despite the greater and increasing need for health services, benefit incidence of health expenditure is tilted in favour of males in 2010-11, except for the rich; although, it was in favour of females in 2004-05 for all income groups, except middle income and poor brackets. In other words, there has been a regression with respect to females. In Sindh, on the contrary, benefit incidence of health expenditure was in favour of males for all income groups, except for the middle income bracket, and has moved for all income groups in favour or females. In other words, there has been a progression in favour of females. In Khyber Pakhtunkhwa and Balochistan, benefit incidence of health expenditure was biased in favour of females for all income brackets in 2004-05 and has remained so in 2010-11; the sole exception being in Khyber Pakhtunkhwa, where there has been a regression for upper middle income group in 2010-11.

Chapter 3 examines the impact of trade liberalization on the female labour force. Pakistan commenced with liberalization of trade in 1988 and which gained pace in 1991-92. The study looks at the period 1990-91 to 2007-08 – a period of 17 years to measure the impact[1]. The analysis shows that the impact of trade liberalization is positive for women; although the relationship is weak. Women are predominantly employed in agriculture and export manufacturing and women's employment fortunes are linked with the fortunes of these sectors. Commodity concentration is also shown to affect women, as a decline in the major exports cuts into women's employment. The link with education is also weak; implying that women with higher levels of education have not benefitted from trade liberalization.

Overall, the labour force participation rate of women is shown to have increased from a low of 9 percent in 1971-72 to 22 percent in 2007-08. Period-wise, the rate increased in the 1970s, remained static in the 1980s and increased in the 2000s. Resultantly, the overall gender gap has been narrowing; although over three-fourths of women in the age bracket 15-60 continue to remain out of the labour market.

The major gain in female labour employment has occurred in the agriculture sector, where its share has increased by 8 percentage points. However, the increase is largely on account of unpaid family helpers, bulk of whom are illiterate or educated up to primary level. Its share in construction and wholesale and retail trade and restaurants and hotels, already low, has declined further.

In manufacturing, the share of female employment has been fluctuating; falling from 13 percent in 1990-91 to 8 percent in 1999-00, rising thereafter to 15 percent in 2003-04, and dropping again to 12 percent in 2007-08. Manufacturing sub-division-wise, female employment rose in textile, wearing apparel and leather and handicrafts and fell in all others between 1990-91 and 2007-08.

Female employment also appears to have declined in the higher-level categories and increased in the mid-level occupational categories. Employment can be seen to have declined in the 'professionals', 'service workers', and 'elementary unskilled workers' categories and increased in the 'technicians and associate professionals', 'skilled agriculture and fisheries workers', and 'craft and related trades' categories.

In terms of employment status, there has been a decline in female employment in urban areas between 1990-91 and 2007-08 in all categories: employer, self-employed, employees and unpaid family helpers. In rural areas, there is a decline in the employer and self-employed categories and rise in the unpaid family helper category. The trend in the 'employees' category is, on the whole, constant.

Chapter 4 explores the rural non-farm sector and the role of women therein. The non-farm sector is an important component of the rural economy, accounting for nearly 40 percent of rural employment. However, only 15 percent of rural female labour force is engaged in the non-farm sector. The incidence of female non-farm employment is the highest in Punjab and the lowest in Balochistan. Female employment in the non-farm sector has grown between 2001 and 2011 by about 15 percent in Punjab and Sindh and by 76 percent in Khyber Pakhtunkhwa; and declined in Balochistan by 37 percent.

The study identifies 'push' and 'pull' factors that determine participation in non-farm activities. 'Pull' factors include higher returns in non-farm work relative to farm work. This situation is expected to obtain in areas that are characterized by dynamic, commercialized agriculture, operated with relatively modern technology. Non-farm work is generated by demand for modern agricultural inputs and services and for consumer goods; the latter driven by higher incomes. Central Punjab represents the dynamic agro-climatic zone.

Push factors include subsistence incomes for the majority of the rural population, rendering it necessary for them to seek alternative income opportunities. This situation is expected to obtain in areas characterized by traditional feudal land tenure systems, weak commercialization and extensive landlessness. Non-farm work is found in unskilled manual labour tasks. South Punjab and Sindh correspond to the non-dynamic agro-climatic zone. Push factors also operate in upper Punjab, Khyber Pakhtunkhwa and Balochistan, which classify as distress areas.

The highest incidence of poverty – percentage of population below the poverty line – is in rice growing areas of Sindh and south Punjab. And female non-farm employment is also the highest in the non-dynamic rice producing areas of Sindh, followed by south Punjab; ostensibly, driven by push factors. The highest incidence of wage employment and self-employment are also in south Punjab Sindh's rice zone, respectively.

The lowest incidence of poverty is in upper Punjab, followed by central Punjab. Herewith, female non-farm employment is below the national average in upper Punjab and half that in central Punjab. Wage employment among women for non-farm work is high in upper Punjab, but self employment is negligible in both the zones. It appears the 'pull' factors have failed to mobilize women significantly for non-farm work.

By and large, participation in non-farm work appears to enhance women's

empowerment. The empowerment impact in this regard is the highest in Balochistan and the negligible in Khyber Pakhtunkhwa. In Punjab, the difference is the highest in central Punjab and the lowest in south Punjab. The reverse is the case in Sindh rice zone, where the empowerment score is lower for women participating in non-farm work.

Chapter 5 carries out an appraisal of the gendered impact of urban redevelopment and resettlement projects. In 2000, the government began to build the 32 kilometer long Lyari Expressway (LEW) along the banks of the seasonal Lyari river in Karachi. Both the banks were densely populated with squatter settlements, with two-thirds of them dating more than 20 years and over one-tenth dating more than 40 years. About 30,000 houses were demolished affecting about 250,000 people.

LEW was ill-planned from its inception, requiring repeated changes of design and alignment. No consideration was given to the population that was to be displaced and, as such, there was no resettlement plan. Subsequent protests led to the setting up of the Lyari Expressway Resettlement Plan (LERP) and a compensation package, comprising a plot and cash, was prepared. However, repeated changes of the definition of 'family unit' caused considerable chaos in distribution of compensation.

Three relocation sites were developed, with the claim that an objective of LEW was to relocate the population from slum housing along the sewage infested river banks to improved housing and hygienic environs. However, the settlements along the Lyari river were in the heart of the city and provided easy access to employment, shopping and educational sites. On the contrary, the resettlement sites were on the outskirts of the city and placed the affectees at significant distance from employment, shopping and educational sites.

The analysis of impact, measured for three periods – At the time of Displacement (ATD), At the time of Resettlement (ATR) and At Present (AP)[2] – shows massive disruption in the lives of the affectees. While housing conditions improved, employment, livelihood, education and socialization factors worsened. Employment and livelihood impact affected entire families, while women and children suffered in many more ways. With respect to the latter, half the children suffered from discontinuation of education, with 40 percent of boys and 32 percent of girls unable to resume their studies.

The male employment rate fell from 79 percent during ATD to 35 percent during ATR, but recovered to 61 percent only during AP. The female employment rate fell from 15 percent during ATD to 5 percent during ATR and failed to recover during AP. Even the female self-employment rate fell by half from 6 percent during ATD to 3 percent during AP. Occupationally, the percentage of male skilled labour fell from 77 percentage during ATD to 67 percent during AP; an indication that formerly skilled workers accepted work in unskilled occupations. For women, on the contrary, the percentage of skilled labour increased from 29 percent during ATD to 79 percent during AP. This is on account of the fact that women with skills found work, while those without specific skills had to drop out of the labour market.

Consequently, the impact on income was also significantly adverse. While there were no families with zero income during ATD, 43 percent of families reported zero income

during ATR. This percentage has again fallen to zero during AP; however, the severe financial stress experienced by the displaced families during resettlement can be imagined. For those who have found employment, however, income levels appear to have improved. This is indicated by the fact that the percentage of families in the monthly income bracket up to Rs. 7,000 fell from 59 percent during ATD to 44 percent during AP and the percentage of families in the monthly income bracket rose from 40 percent during ATD to 56 percent during AP.

Housing and hygiene conditions improved in many ways. The percentage of families living in slum housing increased from 13 percent to ATD to 23 percent during ATR, but then fell to 7 percent during AP. With respect to sanitation, the percentage of families with flush toilets linked to the sewerage system rose from 75 percent during ATD to 85 percent during AP.

There were serious problems as well. Water supply has emerged as a major issue, with the percentage of families with in-house connection declining from 72 percent during ATD to 40 percent during AP and with the percentage of families acquiring water on payment from private tankers rising from 2 percent during ATD to 45 percent during AP.

Distance and access to basic facilities – grocery store, hardware store, medial store, health facility, community centre and public transport – declined significantly for families from 15 to 45 percentage points. However, access to parks and playgrounds improved for families by 15 percentage points.

The impact on socialization was particularly damaging for women. Relocated to distant localities, with limited access to public transport, families have been left with minimal contact with relatives and friends. Where (homogenous) communities moved together, social contacts were maintained and girls married. Where communities were dispersed and marriage of girls have become seriously problematic.

Chapter 6 focuses on the gender impact of natural disasters; with the case study of Thatta district, which was severely affected by floods in 2010. Thatta was faced with floods when the Indus *bundh* (dyke) breached before dawn. The response of the government as well as non-governmental entities was swift. Over 40 percent of women reported that the first alert was sounded by the local administration and about 30 percent were alerted by family and friends. The army, police and political parties also played an important role in this respect.

While the entire population had to relocate, all families lost their homes and two-thirds lost household assets. Agricultural and grazing land is poor and unproductive and which suffered further deterioration. An indicator of poverty in Thatta is the pre-floods male and female employment rates of 42 percent and 18 percent, respectively. Post-floods, women suffered heavily in terms of employment. While 42 percent of men reporting being employed before and after the floods, the post-flood employment rate for women fell to 13 percent.

Apart from physical losses, the flood affectees suffered physical ailments and psychological trauma during the 4-5 months they had to remain in camps, waiting for the flood water to dry up[3]. The former was a result of physical stress and poor hygiene in the

camps and the latter on account of being uprooted, loss of assets, uncertainty, and privacy issues in the camps. Women suffered more than men, with three-quarters of women and half of men reporting needing medical assistance. The major illness reported was fever, with over one-quarter of men and over one-third of women reporting such cases. About 16 percent of men and women reported suffering from gastro-intestinal problems. The incidence of psychological health issues was far greater among women than men – 99 percent versus 60 percent, respectively.

Incidentally, there were some positive impacts of the floods. Pre-floods rural literacy rates were 31 percent and 12 percent, respectively, and gross primary enrolment rates were 40 percent for boys and 30 percent for girls. Post-floods, the gross primary enrolment rates for boys and girls have risen to 49 percent and 46 percent, respectively. It appears that the presence of tent schools in the camps, set up by non-governmental organizations, has – perhaps – altered the cultural view of education and induced parents to send their children, including girls, to school.

There were gains for women on the reproductive front as well. There were women who had had multiple children – eight in one case – and had never obtained any ante-natal check-ups or any professional medical assistance. In the camps, though, 15 percent of the women were pregnant and 95 percent of them obtained the ante-natal check-up facility.

Chapter 7 analyses the direct cost of violence against women. According to a report, 80 percent of women in Pakistan experience some form of domestic violence, which ranges from verbal or psychological abuse to more extreme forms of assault , including rape and honour killing.

Women who are most prone to violence are found among the illiterate, in the age group 19-29, and are not economically active. However, women who are educated up to primary level, are in the age group 20-50, and are engaged in unskilled occupations also experience violence. A large majority – three-fourths – of victims of violence belong to families earning up Rs. 8,000 per month. Over 40 percent of victims are also married.

Physical, verbal, economic and psychological abuse – in this order – is the predominant types of violence against women. The major factors that induce violent behavior among men is aggressive nature, poverty and frustration, and drug addiction. In more than half the cases, the violence is perpetrated by the husband, followed by in-laws. Male neighbours are often responsible for rapes. The major injuries include bruises, sprains and cuts, followed by head and facial injuries and even fractures. Poisoning is not uncommon. Pregnant women also suffer miscarriages on account of violence.

The major direct financial costs of attending to injuries include medical costs, which may include hospitalizations in more serious cases. Where victims decide to pursue the case, legal, police and judicial costs are also incurred. Police costs include 'facilitation' payments for registration of a case. Frequent trips to the lawyer's chamber, to police stations, and to the courts also entails transportation costs. Ironically, police and judicial costs far exceed medical costs. Given that the women suffering violence belong to low income families, these costs impose a significant burden on their meager resources.

The effects of violence are felt beyond the immediate occasion of the incident. About 29 percent of women reported leaving work as a result of violence; although, 14 percent resumed work subsequently. At the same time, victims also found themselves financially handicapped and were forced to commence work. About one-third of victims of violence commenced work immediately after the incident and another one-third of victims commenced work at a later stage.

Interestingly, women do respond to violence. Nearly 60 percent of victims countered verbally and one-quarter even retaliated physically. About 13 percent fled their homes, 3 percent attempted suicide and 2 percent even resorted to hunger strike. Two-thirds of victims who retorted verbally said that the perpetrator felt ashamed and apologized. However, one-third said that they were subjected to more violence; with some threatening to harm the children and some even threatening murder.

Two-thirds of victims were aware of the legal protection against violence towards women and nearly 70 percent desired counseling and therapy facilities. Others desired legal assistance and speedy disposal of cases, financial support and emergency accommodation. Post-recovery, victims asked for social security and employment opportunities.

Chapter 8 deals with laws relating to women workers and to protection of women. The review highlights the absence of provisions for women in almost the entire body of labour laws; except, provisions relating to maternity benefits. Herewith too, the laws are deficient. For example, while women are allowed maternity leave, no leave is provided in case of a miscarriage.

The narrative on laws relating to protection of women reveals that the first major post-independence legislation to protect women's interest was the Muslim Family Laws Ordinance 1961. Thereafter, the years 1976 to 2004 is marked by a lull in terms of women-specific legislation. Legislatively, the decade of the 1980s was a dark era for women, with promulgation of a series of laws detrimental to women. The most progressive years in terms of pro-women legislation have been 2008-2012, whence a total of 30 laws relating to women's rights and interest were enacted. The challenge now is for the legislation to be implemented and made part of social norms.

The eight areas on which this book focuses attention are not exhaustive by any stretch of imagination. Rather, they represent the tip of the iceberg. There are a host of other spheres where it is essential to see behind the aggregates to identify and highlight women's issues and their vulnerabilities and to ensure the women remain in focus while policies and programmes are formulated. Gender equality is a worthwhile goal and careful research and analysis can provide the empirical underpinning to an advocacy campaign in this regard.

NOTES:

1. The study was first published in 2010 and has not been updated for the purpose of this book as other post-2008 developments are likely to have influenced trends in the labour market.

2. AP refers to the time the survey was carried out, i.e., in 2010.

3. The slope of the land and the nature of the soil did not allow the water to drain out or be absorbed by the soil; resultantly, affected residents had to wait for the water to evaporate before moving back to their villages.

1 Contextualizing Female Headed Households in Pakistan

Female headed households (FHH), as opposed to Male Headed households (MHH), have particular characteristics, issues and problems that need to be understood and addressed specifically in policies, plans and projects. FHH have diverse characteristics and there are particular contextual factors that lead to their formation. FHH and MHH have different levels of access to employment and basic services and of poverty and deprivation. Labour force participation, education, health, nutrition, and living standards are known to vary widely between the two. Resource allocation mechanisms and relative advantage between boys and girls are also assumed to vary. This study attempts to document the above characteristics of FHH relative to MHH. The initial analysis also shows differences between urban and rural areas with respect to the patriarchal approach to FHH.

Household headship is assumed to be the position carried by an individual who contributes to family income and takes final decisions related to major or minor family affairs. In some cases, age is also considered as a qualifying determinant of household headship – especially in culturally bounded societies – and is complemented by income, education and marital status. Female headship is largely dependent on the socio-cultural norms of a particular geographical area in the country. Often males are recognized as family heads even if they are minors, despite the presence of educated, employed or older females.

Definitions of Female Headship

Research on households has attempted to define criteria for identification of the household head. In traditionally patriarchal societies, the task is complicated because women are rarely identified as heads of the household in the presence of a husband or other male relatives, even when they are the main economic providers (Gangopadhyay & Wadhwa, 2003; Morada et al., 2001). Headship is often associated with power and decision-making authority, and women in male-dominated societies have poor bargaining power. Miralao (1992 in Morada et al., 2001) describes the household head as "the reference person for obtaining information on the other household members and on the characteristics of the household." Under this simplified definition, the person regarded as the household head does not necessarily bear economic responsibility.

The problem arises with attempts to draw conclusions on socio-economic implications of headship, based on headship-as-a-reference-point definition suggested above. Mookodi (2000) has noted that the household head, in addition to being a

reference person for information on the household, is also responsible for decision-making processes and resource provision within households. Similarly, Rosenhouse (1994) and Buvinic & Gupta (1997) have argued that for the concept of headship to be useful for policy purposes, it must include some dimension of economic support as well as decision-making authority on resource allocation. This implies that there is a difference between reported head and working head.

Many households are economically dependent on women even when a male member is present. Proxies and alternatives to the term FHHs that encompass the range of household structures dependent on women to a greater or lesser degree, such as: "female-maintained," "female-led," "mother-centered," "single-parent," or "male-absent" have often been used in literature (see Buvinic & Gupta). Moreover, it is useful "to distinguish between female-headed households (residential units) and female-maintained families (kinship units) because a female-headed family may reside as a sub-family in a larger, often male-headed household". Morada et al. on the other hand have described FHHs as "households where a female adult member is the one responsible for the care and organization of the household or is regarded as head by the other member of the households".

Gangopadhyay and Wadhwa identify four different kinds of FHHs comprising of women who are currently married, have never married, are widowed, or are divorced/separated. The last three types of female heads are often described as *de ju*re heads (see Sanni, 2006). In the case of a married woman, the husband is usually not living in the same house, hence making the woman the *de facto* head of household. In such cases, decision-making power resides with the female head, but who will yield this role to the male spouse upon his return or to a male child when he is old enough to be regarded as the head. Furthermore, Mookodi has observed that such women tend to rely greatly on male relatives for support and representation in public matters. The proxy terms female-managed or female-maintained may, therefore, be more appropriate for such households. Sometimes, female headship may be a 'ceremonial' position as a mark of respect given to older women (Sanni). This does not necessarily translate into greater bargaining power and decision-making authority for the female head. Other reasons for emergence of FHHs are unemployment of the male earning member due to prolonged and/or permanent illness or disability, out of wedlock children, and sex-ratio imbalances as a result of civil conflicts and war (IFAD, 1999).

The diverse structure and features of households headed by women across countries are thus clearly reflective of the contextual factors that contribute to the formation of FHHs. Socio-economic characteristics of FHHs that are commonly studied include variables such as: location (urban/rural), marital status, highest educational attainment, labour force status, occupation, hours of work, type of residence, and average household size (see Sanni on Ibadan; Morada et al. on Philippines).

Comparison of these characteristics in different settings is also indicative of spatial variations across the rural/urban divide. Many studies find female headship more common in urban areas as compared to rural areas. Female heads are usually found to be older in

age compared to male heads and are likely to be currently married or widowed (see Morada et al.: Panda, 1997 on rural Orissa; Rosenhouse, 1994 on Peru). The average household size of FHHs is also smaller in comparison. Most FHHs comprise of four members compared to an average of five to six members in male-headed households.

Studies have also found most female heads to be less educated. This is reflected in gender-related differences in employment patterns for male and female heads. Only 22 percent of female heads are literate in Orissa compared to 44 percent among male heads (Panda), while the number of female heads in Peru who never went to school was three times that of male heads and, on average, males received two more years of schooling than females (Rosenhouse). Similarly, in rural Bangladesh, 58 percent of female heads are illiterate compared to 36 percent of male heads (Mannan, 2000). As an exception, Morada et al. finds that a greater number of female heads in Philippines have attained higher levels of education compared to male heads, but that more female heads also have not finished basic schooling as compared to male heads. In terms of occupation and employment, female heads are usually found in clerical work and informal services sectors, while male heads are involved in agriculture, animal husbandry, fisheries, and forestry (Morada et al.; Rosenhouse). Mannan finds that the primary source of income for FHHs in rural Bangladesh comes from leasing land, share cropping, cattle-fattening, wage labour, and other small businesses.

Rosenhouse has also observed that in at least 32 percent of Peruvian households, the head does not bear the sole responsibility of maintaining the household. Similarly, Morada et al. finds that the co-residential members in FHHs are mostly older, more educated, and economically active as compared to their counterparts in MHHs. Rosenhouse finds evidence that households which are disadvantaged due to the status of work or educational attainment of the household head are more likely to expand the pool of available labour supply through extended family living arrangements, which may include sons or other adult male relatives (also Chant, 2007). Working female heads are also more likely to work longer hours than male heads and bear the dual burden of housework and out-of-home employment. The reported head concept which fails to reflect this, thus, understates the role of female working heads. There is also a tendency to overstate incidence of poverty in households headed by females. Many have argued that it is not fair to compare FHHs with MHHs; rather as Chant suggests, comparison should be between socio-economic features of female-heads with the working women members of MHHs.

The 'feminization of poverty' thesis assumes that women belong to the poorest segment of society, so that households headed by women must inevitably be the 'poorest of the poor'. Further complicating the situation is the 'inter-generational transmission of disadvantage' thesis, which raises questions about the well-being of future generations in FHHs. It assumes that the circumstances which disadvantage female-heads compound over time and create future hardships for children in such households (see Chant for more on assumptions underlying feminization of poverty thesis).

Many factors that place women at an economic disadvantage as compared to men are responsible for the perception of greater poverty among FHHs. The dependency ratio per worker in FHHs is usually higher compared to MHHs, where there may be more than one earning member (Morada et al., 2001). The gender bias against women, which may occur in terms of limited access to better paying jobs and opportunities, poor access to physical and financial capital (e.g. land-holding) and fewer investments in human capital (via education and health) means that women and girls have fewer opportunities than men (Gangopadhyay & Wadhwa; Morada et al.; Joshi; and Mannan). Panda finds that three-fourths of MHHs in Orissa owned land to only one-fourth in case of FHHs. In Zimbabwe, FHHs have between 30 and 50 percent smaller landholdings than MHHs with similar figures existing for Malawi and Namibia (IFAD, 1999). The living standard of MHHs (in terms of housing type, housing size, and facilities such as electricity, running water) is higher and they are also more likely to own modern consumer appliances compared to FHHs. Furthermore, female heads must balance home and work obligations, which limit the opportunities open to them for employment and add to time and mobility constraints (Buvinic & Gupta).

Buvinic & Gupta in their analyses have brought-forward some evidence of "transmission of disadvantage". The analysis undertaken indicates that the issue of headship has some implications for children's nutrition and educational attainment, though no conclusive positive or negative impact can be determined.

The 'transmission of disadvantage' is not just in terms of material deprivations. It also includes the psychological, emotional and social traumas and insecurity that children in FHHs confront (see Chant). Society's attitude and stereotypes towards children in male-absent families can have a negative impact on the children's well-being. Nevertheless, as Chant has pointed out, children in MHHs can be just as deprived as children in FHHs if women have weak bargaining power in decisions about resource allocation. Consequently, the girl child in particular is expected to face discrimination when resources are scarce and men have primary decision-making authority. In comparison, women and children may be better off in FHHs where there is less insecurity, less threat of physical and emotional violence and less discrimination against the female child. The heterogeneous nature of female headship results in different configurations of households headed by women that have multifaceted impacts on poverty and inter-generational disadvantage.

Defining Female Headship in Pakistan

The social composition of households in Pakistan is changing with changes in social, cultural, technological and economic relationships at local as well as global level. Growing urbanization and improved telecommunication systems including cellular phones, satellite TV channels and the internet are the core instruments of this social transition. The social transformation process that was initiated with the migration of semi and unskilled workers

mainly to the Arab countries has now been reinforced with cultural globalization. While Pakistani society is still built on the more traditional foundations of tribe, clan and biradri, external and internal drivers influencing decision-making, authority and empowerment are posing new challenges to intra-family relationships. Female headship in Pakistan is a complex phenomenon in this dynamic process of social transformation.

It is important to define female headship in Pakistan and to look at this phenomenon through the lens of the cultural and traditional value system that places an aging member of the family, sometimes with no authority and decision-making power, as the household head. This 'ceremonial headship' is closely linked with possession of assets and inheritance rights.

One important aspect that is found missing in literature is the 'multiplicity in household headship' that is based on the concept of partial headship of the household by the female and male members. Thus, minor decision-making and authority over day to day matters may rest with female family members, but major decisions and power are in the male domain.

Existing literature in Pakistan, when defining female headship has suggested that *de facto* and *de jure* headship does not really mean that women who are heading the household are empowered in all respects [Bilquees & Hamid (1981), Shaheed (1981) and Abbasi & Irfan (1983)]. In the context of women empowerment at household level, the education and employment of female heads guarantees a change in household perceptions about the status of women in the family.

The number of female-headed households is rising in Pakistan, the increase largely attributed to rising economic pressures on account of changing consumption patterns and decline in the sustenance base, that has forced women to enter the labor market and constitute female-headed households. The emerging female labor force in Pakistan, though encouraging, is more a causal effect of rising economic stress than of a conducive social environment based on values of gender equity and equality. Nevertheless, female-headed households in Pakistan have the potential to have a positive impact on the overall structure of society by overriding cultural and traditional barriers, enhancing empowerment and decision-making, recognition of inheritance rights and exercising authority in marriage, setting intra-family expenditure priorities, education of children and taking decisions on female health problems.

Of the many perceptions related to the socio-economic characteristics of specific households based on headship, the most common one is that households headed by women are usually the 'poorest of the poor.' This is the case in Pakistan. The incidence of poverty in Pakistan is quite high in FHHs of urban slums as reported by Mohiuddin (1989). Cultural and social traditions further limit the capacity of female heads in Pakistan to impart their duties. Mohiuddin reports an interesting finding of female-headed households having fewer earners as compared to male-headed households. This is a situation that brings a double-burden on women and further weakens the already disadvantaged position of women in society.

An acceptable and plausible definition of female headship in Pakistan needs to be developed within a larger framework, addressing the following questions.

a) Do socio-cultural traditions and religious values influence individual and collective behavior towards females in Pakistan?

b) Given the *de facto* weakness of inheritance rights and ownership of assets, to what extent do women in Pakistan possess an empowered and economically independent status in society?

c) With a history of marginalization and subjugation, how effective would female headship be in relation to empowerment and decision-making?

d) Since work done by women is often not recognized, how does a woman who is the sole bread winner or a higher contributor in total family income influence prevalent perceptions about working women? What impact would this have on the overall family structure?

e) Are rural women more vulnerable compared to their urban counterparts who have greater access to information and justice?

f) In a class based society, how does one definition of female headship encompass varied factors such as culture, value systems, traditional practices, religion, and ethnic and linguistic divisions?

g) How important are the female marital status, employment, income, education, and age in determining female headship in Pakistan?

For the purposes of this research, a slightly modified version of the government definition of FHHs, as specified in the Pakistan Social and Living Standards Measurement (PSLM)[1] survey, has been used. According to the PSLM definition 'a person is recognized as head of household who is considered as the head by household members.'[2] If a woman claimed to be the household head, that household has been recognized as headed by a female.

For Pakistan, it is not only the definition of female headship, but also the route taken by women to assume this position which is important. The present study attempts to establish a link between socio-economic characteristics at household level and the most common reasons for female headship. It distinguishes between economically active female heads (*de jure*), female headship due to certain events and/or circumstances (*de facto*), and ceremonial household headship. This is necessary because resource contribution, decision-making authority and bargaining power are different depending on the route into female headship. Also, a household is classified as one whose members live together and share meals. A FHHs that exists as part of a co-residential unit constitutes a separate household, if it has separate living quarters in which members of the FHHs cook their own meals.

Socio-Economic Characteristics by Household Headship

Female headship has increased from 7.6 percent in 2004 to 9.0 percent in 2007-08, with Punjab and Pukhtunkhwa witnessing a greater trend in this respect. In the analysis that follows, the socio-economic characteristics of FHHs and MHHs have been compared with resepct to marital status, age, education and relationship with the household head, employment status, nature of employment, income and reasons for unemployment. The anlaysis is based on household survey conducted by SPDC in 13 districts of Pakistan. Survey methodology is given in Annexure 1.

Family Demographic Profile

Average Family Size

Family size is directly proportional to the live birth rate and inward migration at the household level. While population growth rate in Pakistan has come down from an average of 3.2 percent per annum in the decade of 1980s to about 2 percent

Table 1.1
Average Household Size in Selected Sample Area

	Urban	Rural	Total
Female Headed Households	6.9	6.8	6.8
Male Headed Households	6.9	7.4	7.2
Total	6.9	7.2	7.0

Source: SPDC field survey in 13 districts of Pakistan

recenlty[3], it is still higher than in other South Asian countries. According to the Pakistan Demographic Survey (PDS) 2006, the average family size in Pakistan was 6.7 in which the average urban family size was 6.5, while the average rural family size was 6.8. The average family size in FHHs and MHHs is the same in urban areas. In rural areas, however, the average family size is larger at 7.4 for MHH than for FHH, which is 6.8 (Table 1.1).

Marital Status of Family Head

Marriage is a strong institution in Pakistan that determines the social status of the individual, particularly of the woman. The common perception is that a married, non-working woman has a higher social and economic status as compared to a single non-working woman. In case of men, marriage does not distinctly alter their social and economic status.

Since marital status is one of the key variables in determining the rise in female headship in Pakistan, further classification of the 'currently single' category into unmarried, divorced and widowed is

Table 1.2
Marital Status of Household Head by Region
(Percent)

	Urban	Rural	Total
Female Headed Households			
Unmarried	1.5	1.5	3.0
Married	35.3	22.6	58.0
Divorced	0.5	0.5	1.0
Widow	21.5	16.5	38.1
Total	58.8	41.2	100.0
Male Headed Households			
Unmarried	2.0	1.2	3.2
Married	52.5	38.2	90.7
Divorced	0.0	0.0	0.0
Widower	3.5	2.6	6.1
Total	58.0	42.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

necessary. Table 1.2 explains some interesting figures for FHHs further classified into rural-urban dimensions. One of the key findings of the survey is that female headship is

explained by the large number of widows who make up 38 percent of the total FHH sample. Of these, 22 percent are in urban areas and 17 percent in rural areas. The percentage of divorced women is negligible. The table also shows that 58 percent of the total FHH sample are married women. This finding also means that females are heads of the household in the presence of male members. One reason could be that in these nuclear families the husband is either unemployed, unable work or not interested in work. Hence the woman is forced to work and assume the role of household head. In comparison with FHHs, over 90 percent household heads in MHHs are married and only 6 percent are widowers.

Education of Family Head
The education field is characterized by low enrolment ratios and high level of illiteracy in the female population.

Table 1.3 presents the literacy rate among the household heads surveyed. The table shows that 57 percent of female heads are illiterate while 14 percent have completed primary level education. There is a slight difference in the education status of female heads up to middle level in urban and rural areas. Illiteracy figures are the same in both urban and rural households. The education status in MHHs exhibits a better scenario when compared with FHHs. Table 1.3 shows that 77 percent of male heads are literate compared to 43 percent of female heads.

Average Age of Family Head
Age has an important cultural status in Pakistani society. The age of the household head is important from the viewpoint of legitimacy, control and voice in major decision-making. Situations in which parents and grand-parents are 'ceremonial heads' of the family with no economic contribution, are in contradiction with the definitions of household headship. The term 'ceremonial head' is found only in societies where social or religious value systems have strong influence on individuals. In case of a 'ceremonial head', age is the only determinant of the household headship.

Table 1.4 presents the average age of the household head by marital status in urban and rural sample areas. The figures show that the average age of the head in each category of marital status in FHHs is lower than in MHHs in both urban and rural areas. The difference in the average age between FHHs and MHHs is more significant in rural areas as compared to urban areas. For instance, the average age of the widow head in rural FHHs is 52 years, 8 years lower than in rural MHHs in the same category. Except for the widow category, the total average age in both types of households is less than 50 years that indicates that household headship is also determined by other factors such as income, employment and education. There is strong likelihood of the presence of 'ceremonial headship' in the FHHs widow category as the average age in urban areas is 54 years while in rural areas it is 52 years. The survey results are consistent with PSLM 2007-08 that shows 69 percent of FHHs to be in the age group between 30-54 years, while 20 percent are in the age group of 55 years and above.

Table 1.3 Educational Qualification of Household Heads by Region (Percent)			
	Urban	Rural	Total
Female Headed Households			
Illiterate	28.4	29.0	57.3
Literate/Primary	8.2	6.2	14.4
Middle	4.6	2.1	6.7
Matric	8.8	2.1	10.9
Intermediate	4.6	0.2	4.9
Graduate	2.7	1.1	3.9
Masters	1.5	0.4	1.9
Male Headed Households			
Illiterate	10.7	12.7	23.4
Literate/Primary	4.7	5.1	9.8
Middle	8.8	7.0	15.8
Matric	13.6	9.1	22.6
Intermediate	6.3	3.0	9.3
Graduate	7.8	3.7	11.6
Masters	6.0	1.5	7.5

Source: SPDC field survey in 13 districts of Pakistan

Table 1.4 Region-wise Average Age of Household Head by Marital Status		
	Urban	Rural
Female Headed Households		
Unmarried	37.9	42.3
Married	42.7	40.9
Divorced	35.0	44.5
Widows	54.3	52.4
Total	**46.8**	**45.6**
Male Headed Households		
Unmarried	37.4	31.4
Married	48.0	48.3
Widower	59.1	60.5
Total	**48.3**	**48.5**

Source: SPDC field survey in 13 districts of Pakistan

Dependency Ratio by Headship

Unlike western countries where the economic burden of children and senior citizens is shared by the state, the burden of support to children and the elderly in Pakistan falls entirely on families. Social institutions in developing countries such as Pakistan either do not exist or are not strong enough to share the economic cost of dependency of children and senior citizens. Besides weak institutional capacity, prevalent cultural and religious value systems portray this dependency as a responsibility and duty of the young family members. This also results in a situation where more mouths are fed by a few earning hands.

The dependency ratio is calculated by extracting the population of children from age 0 to 14 years and elders of age 60 years and above, and dividing it by the working age population from 15 to 59 years. Disaggregated analysis is conducted to show the level of dependency by different classifications in age and by gender. It can be seen from Table 1.5 that the overall dependency ratio in FHHs is 9 percent higher in rural areas compared with that in urban areas. In MHHs, the difference is 6 percent.

Education Status at Household Level

This section presents some findings on the status of education at the household level by urban and rural classification. It includes enrolment ratios by gender in both FHHs and MHHs, percentage of children not attending the school and reasons for school absenteeism.

The primary enrolment ratio for females in FHHs in rural areas at 47 percent is better when compared with the male enrolment ratio of 34 percent. Similarly, female enrolment ratios at middle, secondary and intermediate levels in rural FHHs are higher than those for urban FHHs. From this one may conclude that urban FHHs are biased against the education of the girl-child, while rural FHHs give priority to female education.

Table 1.5 Dependency Ratio by Household Headship by Region (Percent)		
	Urban	Rural
Female Headed Household		
Children upto 5 years	14.70	16.29
Children between 6-14 Years	27.27	33.83
Female over 60 years	5.94	6.82
Male over 60 years	3.70	3.74
Total	**51.6**	**60.7**
Male Headed Household		
Children upto 5 years	13.67	16.37
Children between 6-14 Years	28.50	30.98
Female over 60 years	3.59	4.09
Male over 60 years	6.49	6.63
Total	**52.2**	**58.1**

Source: SPDC field survey in 13 districts of Pakistan

Table 1.6 Gender-wise Enrolment Ratio by Household Headship (Percent)

Household	Urban		Rural	
	Girls	Boys	Girls	Boys
Female Headed Household				
Primary	36.3	32.7	47.4	34.3
Middle	27.4	40.8	39.0	34.0
Matriculation	53.4	73.1	73.2	53.4
Intermediate	25.0	39.4	32.4	37.0
Male Headed Household				
Primary	36.2	42.3	49.1	49.2
Middle	43.2	33.9	61.2	36.1
Matriculation	50.9	58.1	69.6	58.2
Intermediate	27.7	35.6	34.9	45.1

Source: SPDC field survey in 13 districts of Pakistan

Another important aspect of the enrolment ratio in FHHs is the percentage of children in matriculation both in urban and rural areas. In rural FHHs, 73 percent of females are at matriculation level compared to 53 percent males. In urban FHHs, these figures show a reversed trend of 53 percent for females and 73 percent for males. Despite having low literacy rate in rural FHHs, higher enrolment of females compared to males and urban females shows the commitment of rural FHHs to avert trans-generational illiteracy in rural females.

Reasons for Not Attending School
There are many reasons why children may not be able to attend school. Table 1.7 summarizes various reasons that impede children from attending school as stated by respondents of the survey. Education being expensive is cited as the main reason for not sending children for primary, secondary and intermediate levels (82, 34 and 32 percent respectively). Poverty has also contributed to child labour as 11 percent of the children at primary level, 14 percent at secondary level and 23 percent at intermediate level are out of school because of job/work. At secondary level, 23 percent of children did not find the curriculum and school activities interesting or useful enough. Primitive methods of teaching and prevalence of corporal punishment in public schools may also have contributed to the high rate of drop out. Incidence of illness and disability is cited as a reason by 11 percent of children at the secondary level.

Education in private institutions is expensive compared to the public sector where, education is partially or fully subsidized. Parents may not wish to send children to the public schooling system due to the deteriorating quality of education and frequent absenteeism of teachers. It can be seen that 34 percent of children at secondary and 32

Table 1.7 Reasons for Not Attending School *(Percent)*			
Household	Primary	Secondary	Intermediate
Education is Expensive	82.0	33.8	32.2
Sickness/Disability	2.3	11.3	4.7
Due to Job/work	11.0	13.8	23.4
Parents Do Not Give Permission	1.8	6.3	6.1
Child Does Not Want to Go School	1.3	22.5	14.0
Other	1.8	12.5	19.6
Total	**100.0**	**100.0**	**100.0**

Source: SPDC field survey in 13 districts of Pakistan

Table 1.8 Employment Status by Household Headship by Region *(Percent)*		
Household	Urban	Rural
Female Headed Household		
Employment Rate	22.2	26.9
Un-employment Rate	77.8	73.1
Male Headed Household		
Employment Rate	86.5	81.1
Un-employment Rate	13.5	18.9

Source: SPDC field survey in 13 districts of Pakistan

percent children at intermediate levels are not attending school because of un-affordability of educational expense by the parents. A significant number of 6.1 percent children at secondary level do not have permission to go to school.

Employment Status

According to the Pakistan Economic Survey 2008-09, urban unemployment rate has increased from 7 percent in 2006-07 to 9 percent in 2007-08[4]. With the overall high rate of unemployment, those who are illiterate and/or do not possess other skills are likely to remain unemployed. Table 1.8 indicates the comparative employment situation of female and male heads. Female heads who are largely uneducated and lack employable skills are already a large 78 percent, compared to 14 percent of male heads. Only 22 percent of urban females are employed while 27 percent are employed in rural areas.

Contrary to the female employment status, the employment rate for male heads is 87 percent in urban and 81 percent in rural areas. Higher literacy, ownership of productive assets, better skills and better chances to get employment even after retirement are a few possible reasons for relatively lower unemployment rate for male heads. Employment rates for rural FHHs are 5 percent points higher as compared to urban FHHs. This may be due to the fact that women in rural areas are almost universally engaged in agricultural work and livestock management.

Nature of Employment of Household Heads

The nature of employment is a key variable that provides information on the economic activity of household heads. Table 1.9 shows that only 10 percent of urban female heads are salaried employees as against 37 percent of urban male heads. Daily wage employment is higher in MHHs as compared to FHHs.

With the expansion of micro credit facilities, women's access to credit appears to have increased in rural areas as compared to urban areas. This is borne out from the data which shows that a higher share (10 percent) of FHHs are engaged in personal business/ partnerships in rural areas.

On the other hand, MHHs are mostly engaged in full-time jobs and own businesses or are in partnerships. Better economic environment for business in urban areas is reflected from the data as 36 percent of male heads are in personal business or partnership while this ratio is 23 percent in rural MHHs. Table 1.9 also reveals higher percentage of daily wage workers in rural areas, when compared to urban MHHs. Due to presumably higher land ownership, employment in agriculture is significantly higher for rural MHHs compared to rural FHHs.

Profile of Income

Household income is the key indicator that determines the economic status of the family. It also indicates the amount of resources available with the household for consumption expenditures. Family income also sets priorities in expenditure patterns; for example, there can be a higher possibility of investment in human resources if the family income is high.

Table 1.9
Nature of Employment of
Household Head by Region

(Percent)

Household	Urban	Rural
Female Headed Household		
Salaried Employee	9.9	9.7
Contractual Work	1.1	1.2
Work on Daily Wages	4.4	5.1
Personal Business/Partnership	6.3	10.3
Investment	0.2	0.0
Farming/Agriculture	0.2	0.6
Unemployed	77.8	73.1
Total	100.0	100.0
Male Headed Household		
Salaried Employee	36.5	29.3
Contractual Work	3.9	1.5
Work on Daily Wages	7.7	18.6
Personal Business/Partnership	35.8	22.5
Investment	0.6	0.3
Farming/Agriculture	1.9	8.9
Unemployed	13.5	18.9
Total	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

There is substantial difference in income of the household head and the total family income. The former equals the earning of the sole bread winner in the family, while the latter represents the total income from more than one earning members. Most researchers have confronted definition problems of household heads when triangulating income from different classifications of earners. For instance, most of the single female earners do not recognize themselves as heads of households and consider unemployed or sick or economically unproductive males of the family as the household head. The survey has tried to remove this inconsistency by considering only those women as household heads who recognize themselves as such. With this definition, other possible characteristics of household heads such as income, employment, education, age and asset ownership become a secondary classification.

To understand the difference between the income of the household head and total family income in FHHs and MHHs, a separate analysis was conducted to show the level of deprivation if the household head income is extremely low, unable even to maintain subsistence. Aggregate analysis or average household income do not reveal the phenomenon of 'survival at margins.' Low levels of employment in FHHs both in urban and rural areas indicate existence of poverty especially in cases of single earning members. as shown in Table 1.8. Even with the inclusion of earnings of other family members in FHHs, the situation does not change substantively.

Before analyzing the implications of average income by household headship, it would be interesting to examine the level of income of employed female heads. The data shows that 8 percent of FHHs income is up to Rs. 2,500 per month, 24 percent have income between Rs. 2,501 - Rs. 5,000, whereas 17 percent have income between Rs. 5,001 - 7,500. This means that 48 percent of employed female heads have a monthly income of up to Rs. 7,500 only. This clearly shows the level of poverty in those FHHs where only the head of household is employed.

Table 1.10 shows the mean income of employed household heads in urban and rural areas. The income differential between urban FHHs and MHHs is about 50 percent as the average income in urban FHHs is Rs. 7,657 as compared to Rs. 15,173 in urban MHHs. The rural income differential is even larger 60 percent. The average income of MHHs is 54 percent higher than of average income of FHHs. With an average family size of 7 persons for both types of household heads, per capita monthly income averages to Rs. 1,094 (urban) and Rs. 569 (rural) for FHHs as compared to Rs. 2,168 (urban) and Rs. 1,418 (rural) for MHHs.

The situation is relatively better in households where other family members contribute to the total family income. It is apparent from Table 1.11 that income differential between urban FHHs and urban MHHs is 15 percent. The dynamics of rural economy for FHHs has narrowed this gap further by 13 percent as the average monthly income for rural MHHs is Rs 14,251 compared with Rs. 12,474 in rural FHHs. Income support from other family members in FHHs has thus contributed substantially.

An analysis of the sources of income at household level would help understand the reasons for the differential in economic status in both types of households. It is seen that the FHHs without income support from other family members would remain in chronic poverty and this would further complicate problems at household level.

Table 1.10 Mean Income of Household Head by Region (In Rupees)				Table 1.11 Mean Family Income by Region (In Rupees)			
Region	Mean Income		Percentage Difference	Region	Mean Income		Percentage Difference
	FHHs	MHHs			FHHs	MHHs	
Urban	7657	15173	49.5	Urban	18611	21810	14.7
Rural	3984	9924	59.9	Rural	12474	14251	12.5
Total	5972	13048	54.2	Total	16084	18632	13.7
Source: SPDC field survey in 13 districts of Pakistan				Source: SPDC field survey in 13 districts of Pakistan			

Profile of Living Conditions

Living conditions reflect and impact upon the overall well-being of households. Although education, level of employment, family size, nature of employment and household income are important determinants of well-being, provision of social services such as access to and quality of water supply, sanitation, type of housing structure, electricity are also very significant in this regard.

Residential Status by Headship

Housing is the one of the most neglected areas of social need and has been so since 1947. With increasing population, growth in the housing sector remains inadequate. The national income accounts of Pakistan show the share of ownership of dwellings in total real GDP at an average of 3 percent over ten years from 1999-2009. A somewhat similar pattern of real growth in this sector has been observed in the previous decade.[5] With increase in foreign remittances, demand in the real estate sector has increased substantially, pushing the prices of land and property out of the reach of middle and low income groups. Problems of affordability have been compounded by rampant speculation by land and property dealers.

This situation has affected not only macroeconomic growth, but has also become a major social issue. The last two national housing policies (1992 and 2001) do not have a comprehensive framework that demonstrates a serious commitment by any government over the last three and a half decades to provide 'shelter to its citizens.' In the absence of low cost housing, the number of shelter less people in Pakistan is on the rise.

Three types of housing structures are commonly used in the analysis of total stock of housing in Pakistan. *Pucca* (solid) house are housing units with roofs of reinforce concrete cement (RCC) and walls of solid bricks/blocks; semi-*pucca* house is a housing unit that has either RCC roof or walls of blocks, and *kucha* (not properly constructed) houses have both roof and walls built of wood/bamboo, stone or some indigenous material other than cement or blocks.

Table 1.12 shows that 71 percent of urban FHHs live in their own residential units compared to 76 percent of MHHs in the same category. For rural areas, 84 percent FHHs and 91 percent MHHs own their homes. At the aggregate level, FHHs have 6 percent less ownership of dwellings when compared with MHHs. The number of households paying rents is higher in FHHs compared to MHHs. In urban areas 24 percent of female-headed households are in rental houses while 20 percent MHHs have rented dwellings. In rural areas this ratio becomes 7 percent for FHHs and 4 percent for MHHs.

Table 1.12 Residential Status by Household Headship by Region			
			(Percent)
Household	**Urban**	**Rural**	**Total**
Female Headed Household			
Own Residence	70.6	84.3	76.2
Rent	24.3	7.3	17.3
Subsidized Rent	0.8	0.3	0.6
No Rent	4.2	8.2	5.8
Total	100.0	100.0	100.0
Male Headed Household			
Own Residence	76.2	91.1	82.5
Rent	20.2	4.1	13.4
Subsidized Rent	1.3	0.3	0.9
No Rent	2.4	4.4	3.2
Total	100.0	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

Water Sources by Headship

Water is a basic need and potable water even more so. Water supply remains a problem on account of availability as well as unequal distribution. No significant difference in availability of water sources was found between FHHs and MHHs in urban areas, except

water taps inside the house and water from hand pumps. According to field survey, 42 percent of households have water taps inside the house in urban FHHs while 55 percent have this facility in urban MHHs.

In rural areas, households avail multiple water sources including water taps inside and outside the house, hand pumps, water motor/pumps and closed wells. Significant difference is found in the water sources between FHHs and MHHs. However, rural FHHs rely more on motors/pumps in comparison with MHHs.

Sewerage Facilities by Headship
According to the Pakistan Standard and Living Measurement (PSLM) survey 2006-07, 86 percent of the households in urban areas and 30 percent in rural areas had toilets with a flush system. This ratio has increased to 92 percent in urban areas and 41 percent in rural areas[6].

The household survey carried out for this study shows that 4 percent of urban FHHs have no toilet facility as compared to 2 percent of urban MHHs. In rural areas, lack of infrastructure is evident from the types of facilities the population uses for toilets. There is no striking difference in the usage of sewerage system with a mix of different types of facilities between FHHs and MHHs. However, lack of toilet facilities for rural FHHs is 4 percent higher as compared to rural MHHs. An equal percentage of households in both FHHs and MHHs has flush systems linked with sewerage pipes and open sewers. Nearly 10 percent of the rural population surveyed has inadequate toilet facilities.

Energy Sources for Cooking by Headship
The data shows that there is no significant difference in the source of energy used for cooking in either type of household. However, 95 percent of MHH have access to natural gas compared to 92 percent FHH. The use of firewood and kerosene oil in urban areas is higher in FHHs compared to MHHs. There is no difference in energy source for cooking in rural areas by type of household, but it has sharp contrasts with urban areas where natural gas is predominantly used for cooking.

Major Sources of Lighting by Headship
Electricity demand has increased drastically over the last two decades, and supply of electricity has also increased with the number of villages electrified increasing exponentially.

The survey results show that in urban areas 98 percent of households use electricity as the major sources of lighting compared to 85 percent in rural areas. There is a slight difference in rural areas where 83 percent of FHHs use electricity as major source of lighting as compared to 86 percent in MHHs.

Working Phone by Headship
The advent of cellular phones has supplemented, rather overtaken, land lines in the larger cities. In areas where land line facility is not available, cellular phones are the only

instrument of communication. Resultantly, per capita use of mobile phone at house hold level is 1.23[7], which means that for each family there are 1.23 mobile phones available.

It appears that 15 percent of urban FHHs do not have any phone facility compare with 7 percent in MHHs. Deprivation of phone facility at household level is evident in rural areas where 28 percent FHHs and 20 percent of MHHs have no access to phone facilities.

The data shows that 63 percent in urban areas and 66 percent in rural areas use mobile phones at household level. The large number of users in rural areas may be attributed to the unavailability of land line phones as only 9 percent of households in rural areas have both landline and mobile phones compared to 24.1 percent in urban areas. In urban FHHs 59 percent possess mobile phones as compared to 67 percent in MHHs. A substitution effect is visible from the table as more households are using mobile phones in preference to land line phones.

Comparative Analysis of Household Living Standards

Standard of living at household level is defined and measured in several ways in research literature. Some definitions use the pure economic concept of real income per capita to calculate individual welfare at household level. Others include measurements of material well-being such as house structure, means of transport, use of consumer durable goods etc. Access to and quality of the social service delivery, possession of assets and food consumption expenditures at household level can also provide meaningful information about the standard of living. However, the most widely used definition is based on the aggregate income and expenditure patterns, converted to per capita figures. And the most suitable method of living standard analysis has been found to be the consumption based approach. As Deaton and Grosh (2000) argue, "for developing countries, a strong case can be made for preferring consumption, based on both conceptual and practical considerations."

The variables analyzed in this section include information about household income from various sources, consumption patterns, asset ownership, type and characteristics of durable goods and access and quality of social services delivery. These can be considered as proxy variables of living standards from which some inferences can be drawn.

Consumption Expenditures by Headship

Economic performance indicators and household welfare indicators do not necessarily move in tandem and this has been the case in Pakistan. Despite high real GDP growth of average 5.5 percent to 6.0 percent per annum in the eighties, poverty increased in the following decade as benefits of the high growth rate remained confined to high income groups.

Food consumption per household or per capita is the single most significant measurement of food security. The rationale of measuring meal in-take per family by income quintile is to understand the severity of the food problem (if any) in different income groups. Such disaggregated analysis also serves to highlight the differences in food security between FHHs and MHHs within the urban-rural context.

Table 1.13
Meals Per Day by Income Quintiles by Region
(Percent)

Households	Urban - Meals Per Day				Rural - Meals Per Day			
	One	Two	Three	Total	One	Two	Three	Total
Female Headed Households								
Lowest 20%	29.2	18.8	52.0	20.3	19.7	11.1	69.2	35.3
Lowest-to-Middle 20%	16.0	27.7	56.3	19.9	13.8	15.4	70.8	19.6
Middle 20%	0.0	13.2	86.8	16.1	0.0	21.3	78.7	18.4
Middle-to-Highest 20%	0.0	15.3	84.7	20.7	0.0	17.0	83.0	16.0
Highest 20%	0.0	9.2	90.8	23.0	0.0	2.9	97.1	10.6
Total	1.7	16.7	81.6	100.0	1.2	22.1	76.7	100.0
Male Headed Households								
Lowest 20%	7.0	25.6	67.4	9.2	4.0	16.0	80.0	14.8
Lowest -to-Middle 20%	1.3	28.9	69.7	16.3	2.0	22.2	75.8	29.3
Middle 20%	0.0	17.4	82.6	19.7	0.0	23.6	76.4	21.3
Middle-to-Highest 20%	0.0	8.9	91.1	26.6	0.0	12.9	87.1	20.7
Highest 20%	0.0	13.0	87.0	28.1	0.0	6.4	93.6	13.9
Total	0.9	16.5	82.6	100.0	1.2	17.5	81.4	100.0

Source: SPDC field survey in 13 districts of Pakistan

Meals per Day by Income Quintiles

High food prices, it is generally argued, are the major cause of reduced food in-take at household level in both urban and rural areas. This hypothesis of low food intake at household level because of non-affordability has been tested in this survey.

The results show an alarming degree of deprivation and impoverishment (Table 1.13). In the lowest 20 percent income quintiles of urban FHHs, 29 percent of households barely manage one meal per day. This situation is significantly better in urban MHHs where 7 percent households in the lowest income quintile and one percent in the middle-to-lowest income quintile survive on only one meal per day. A large percentage of 26 percent households in urban MHHs in the lowest income quintile take two meals per day against a relatively smaller percentage of 19 percent in urban FHHs. It may be concluded that in urban areas, the first two income quintiles (lowest and lowest-to-middle) exhibit relatively high incidence of food poverty in FHHs in comparison with MHHs.

A similar pattern is seen in rural areas, where 80 percent of MHHs in the lowest income quintile take three meals per day as compared to 69 percent of rural FHHs. Similarly, 16 percent of MHHs take meals twice a day as compared to only 11 percent of rural FHHs in the lowest income quintile. The incidence of food poverty in rural FHHs is severe as 20 percent in the lowest income quintile survive on one meal a day. In rural MHHs, this situation is better as only 4 percent take one meal a day.

An attempt has been to determine if food scarcity is occasional or chronic. This was assessed by investigating the number of times a household skipped meals in a whole day during the last six months. The analysis is confined to the first three income quintiles by types of household located in urban and rural areas. The rationale is obvious as in higher income groups skipping meals for an entire day would be voluntary rather than due to financial constraints.

Table 1.14
No Meal in a Day in Last Six Months in Households by Income Quintiles

(Percent)

Households	Urban - Income Quintiles				Rural - Income Quintiles			
	1	2	3	Total	1	2	3	Total
a. Female Headed Households								
One Time	12.5	10.6	1.3	8.6	6.8	6.3	3.3	5.8
Two Times	6.3	5.3	0.0	4.1	6.0	3.1	1.6	4.1
Three Times	5.2	2.1	0.0	2.6	6.8	1.6	0.0	3.7
Four Times	4.2	0.0	0.0	1.5	6.0	4.7	1.6	4.5
Over Four Times	2.1	2.1	0.0	1.5	12.0	3.1	0.0	6.6
Never Happened	69.8	79.8	98.7	81.6	62.4	81.3	93.4	75.2
Total	36.1	35.3	28.6	100.0	48.3	26.4	25.2	100.0
b. Male Headed Households								
One Time	2.3	1.3	1.1	1.4	4.0	2.0	1.4	2.3
Two Times	4.7	1.3	0.0	1.4	6.0	6.1	0.0	4.1
Three Times	0.0	0.0	1.1	0.5	10.0	3.0	2.8	4.5
Four Times	4.7	2.6	1.1	2.4	2.0	1.0	1.4	1.4
Over Four Times	7.0	5.3	1.1	3.8	4.0	4.0	2.8	3.6
Never Happened	81.4	89.5	95.7	90.5	74.0	83.8	91.7	84.2
Total	20.4	36.0	43.6	100.0	22.6	44.8	32.6	100.0

Note: 1 = Lowest 20%, 2 = Lowest -to-Middle 20%, 3 = Middle 20%,
Source: SPDC field survey in 13 districts of Pakistan

Table 1.14 depicts the number of times a household has 'starved' over the last six months. In lowest income quintiles, 70 percent of urban FHHs and 81 percent of urban MHHs did not experience starvation in the last six months. In both urban and rural areas, a higher percentage of FHHs did not take a meal the whole day as compared to MHHs in all the income categories. For instance, 13 percent of urban FHH in the lowest income quintile were unable to have food for a whole day and that happened at least once in last six months. The depth of poverty in FHHs can be seen as 11 percent of urban FHHs and 6 percent of rural FHHs in the 2nd income quintile have had no food a whole day at least once in the last six months. This situation is more depressing in rural FHHs where 38 percent in the first income quintiles have had to skip having daily meals (once to more than four times) in the last six months. In the same category, 30 percent of urban FHHs did not have a single meal in a day. In MHHs, the lowest income quintiles have higher incidence of food poverty as 19 percent (urban) and 26 percent (rural) did not have any meal in a day 1-4 times over the last six months. The number of times a household missed a whole day meal is higher in FHHs compared to MHHs, showing that food poverty is more severe in FHHs.

It is also tested whether food consumption increases with increasing household income. Table 1.14 shows that in the third income quintile the percentage of households missing daily meals has declined. Thus, 99 percent of urban FHH and 93 percent of rural FHHs in the third income quintile do not fall in the category of the chronically poor. In the lowest-middle-income quintile, urban MHHs are relatively better off in terms of

food availability at household level compared to rural MHHs where 16 percent of households did not have a single meal compared to 11 percent in urban MHHs. In the middle income quintile, only 4 percent of urban MHHs and 8 percent of rural MHHs did not eat the whole day.

Consumption of Meat by Household

Household consumption of meat in a week by income quintiles would help develop an understanding of the nutritional value of the food in-take at household level in urban-rural areas. It appears that a large 95 percent of urban FHHs and 87 percent in rural FHHs in the lowest income quintile did not consume meat over one week. Rural and urban MHHs in the same lowest income quintile category are in a similar situation. In the lowest-to-middle income quintile, 31 percent of urban FHHs and 39 percent of rural FHHs did not consume meat as compared to 29 percent in urban and rural MHHs. Approximately 50 percent of FHHs and MHHs in both urban and rural areas managed to cook meat at least once a week.

There is no striking difference in meat consumption between FHHs and MHHs by income quintiles. There is, however, a visible difference between urban and rural consumption of meat by household type.

Affordability of Education Expenditures

Most of the poor households desire to allocate some resources to education of children. Their capacity to do so is, however, a moot point. Table 1.15 presents education expenditures among different income groups. It has already been established that FHHs in the lowest income quintiles are the most vulnerable group. Similarly, FHHs in the lowest-to-middle income group can barely afford basic food and other household items. The disadvantaged position of FHHs in the lowest 20 percent quintile is obvious since a high 79 percent cannot afford education expenditures compared to 62 percent in MHHs in the same income group. For the lowest two income quintiles, the mean of un-affordability in

Table 1.15
Affordability of Education Expenditures by Income Quintiles

(Percent)

Household	Yes	No
a. Female Headed Households		
Lowest 20%	20.7	79.3
Lowest -to-Middle 20%	34.8	65.2
Middle 20%	53.3	46.7
Middle-to-Highest 20%	59.9	40.1
Highest 20%	85.4	14.6
Total	48.0	52.0
b. Male Headed Households		
Lowest 20%	37.6	62.4
Lowest -to-Middle 20%	48.6	51.4
Middle 20%	54.9	45.1
Middle-to-Highest 20%	66.0	34.0
Highest 20%	91.6	8.4
Total	62.3	37.7

Source: SPDC field survey in 13 districts of Pakistan

FHHs is 72 percent as compared to 57 percent in MHHs. Of those who can afford education expenses, the figure is 62 percent in MHHs compared to 48 percent in FHHs. In summary, the affordability of education expenditures is low in more than 50 percent of sample FHHs.

Affordability of Health Expenditures

Poor hygiene conditions in poor households cause higher incidence of disease, which puts extra financial burden on the household budget; even when health care services are subsidized. In Pakistan, the rural population is more vulnerable to high health care costs compared to the urban population; because of substantial income differentials and existence of subsidy in charitable hospitals/clinics in urban areas.

Table 1.16 shows the health expenditures in households by income quintiles. In MHHs, the affordability of health expenditures is higher compared with FHHs (71 percent and 48 percent), respectively. In FHHs, 41 percent of the lowest and lowest-to-middle income quintiles cannot afford health expenditures, compared with 18 percent in MHHs in the same income groups. Middle income groups in both types of households show a mixed trend as approximately 50 percent of households could not afford medical expenses. This could be true for those families who have elderly patients and persons suffering from chronic diseases. For higher income groups in both types of household, affordability is not an issue.

Table 1.16
Affordability of Health Expenditures by Income Quintiles

(Percent)

Household	Yes	No
a. Female Headed Households		
Lowest 20%	2.5	24.0
Lowest -to-Middle 20%	2.6	17.0
Middle 20%	8.2	8.8
Middle-to-Highest 20%	17.8	1.1
Highest 20%	17.3	0.6
Total	48.0	52.0
b. Male Headed Households		
Lowest 20%	4.7	6.8
Lowest -to-Middle 20%	10.4	11.3
Middle 20%	10.7	9.7
Middle-to-Highest 20%	23.4	0.7
Highest 20%	21.3	0.9
Total	70.5	29.5

Source: SPDC field survey in 13 districts of Pakistan

Ownership of Assets by Household Headship

The standard of living of households is directly related to the ownership of assets. Differences in relation to ownership of agriculture land, houses, business and commercial establishments and land for commercial purposes according to type of headship are presented in this section. For agricultural land, possession below 25 acres is considered as subsistence level. Owners of above 100 acres of agriculture land are considered landlords. For residential and commercial property ownership of up to 120 square yards is considered as subsistence level of housing.

Possession of Agricultural Land by Household Headship

Asset possession in Pakistan is largely biased towards males, although inheritance rights for women have been recognized in the Constitution of Pakistan and in religious doctrines. However, State intervention in the distribution of family assets is limited because of two reasons. Firstly, it is considered an intra-family decision-making process that allows the household head to distribute assets according to his/her preferences. Secondly, females are neither willing to ask for their legal and religious entitlement, nor do they approach

courts for their claims. So, the process of asset distribution marginalizes women by depriving them of their due share in the family wealth. This discrimination is more intense in rural areas where customary practices, including the largely prevalent feudalistic and tribal traditions, illiteracy and lack of resources have deprived women of agriculture land ownership almost totally.

An attempt has been made to analyze the possession of agricultural land by household headship. Agricultural land is a credible indicator of household living standards and the deprivation of land in rural areas would signify continuity of poverty and deprivation in the long run. The pattern of agricultural land distribution in both types of households will help in drawing comparisons between FHHs and MHHs.

Distribution of Land by Household Headship

Agriculture land ownership has been grouped into a classification based on size. The economic status of farmers generally increases with increase in land holding. Table 1.17 shows that, as expected, male heads have a higher agricultural land ownership as compared to female heads and FHHs are largely restricted to subsistence holdings.

Non-agricultural assets include urban land, built residential and commercial property, and business establishments. Table 1.18 shows data on household asset possession by type of headship. Overall the ownership of assets other than residential property is low in both types of households. FHHs are, however, more disadvantaged than MHHs. For example, only 5 percent of FHHs own non-agricultural land as compared to 11 percent of MHHs. Ownership of business establishments, too, is higher in MHHs compared to FHHs in urban areas.

Table 1.17
Agriculture Land by Household Headship

Household	Urban	Rural
Female Headed Households		
Zero Land Holding	94.5	88.8
1 to 25 Acres	4.9	8.2
26 to 100 Acres	0.4	1.5
101 to 500 Acres	0.2	0.4
501 to Hi	0.0	1.1
Total	100.0	100.0
Male Headed Households		
Zero Land Holding	76.4	69.5
1 to 25 Acres	17.2	26.0
26 to 100 Acres	1.8	0.3
101 to 500 Acres	0.6	1.2
501 to Hi	3.9	3.0
Total	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

Table 1.18
Assets Ownership by Household Headship

Household Type	Urban		Rural	
	Yes	No	Yes	No
Female Headed Households				
Ownership of Non-agriculture Land	5.3	94.7	10.3	89.7
Ownership of Residential Building	70.2	29.8	81.6	18.4
Ownership of Business Establishment	6.6	93.4	2.1	97.9
Male Headed Households				
Ownership of Non-agriculture Land	10.5	89.5	11.2	88.8
Ownership of Residential Building	76.0	24.0	89.1	10.9
Ownership of Business Establishment	8.2	91.8	8.0	92.0

Source: SPDC field survey in 13 districts of Pakistan

A similar pattern is found in rural areas in the ownership of non-agriculture land in both types of households. There is a higher differential between rural MHHs and FHHs in ownership of business establishments. Only 2 percent of FHHs have their own business compared with 8 percent of MHHs.

Overall ownership of residential property is satisfactory in both types of households. However, the proportion of FHHs owning residential property is less than that of MHHs. In urban areas, 70 percent of FHHs own their residential building compared to 76 percent in MHHs. A similar trend is found in rural areas where a higher (89 percent) of MHHs have ownership rights as compared to 82 percent in FHHs.

Income & Expenditure Patterns by Household Headship

The total family income is the main indicator of household living standard. Table 1.19, shows the average total household income by household headship with an urban-rural breakup. Income differential by headship is more pronounced in urban areas relative to rural areas. The average household monthly income in rural FHHs is Rs 12,474, 14 percent less than of rural MHH.

Table 1.19 Average Income by Headship by Region			
	Mean Monthly Income		
Household	**Urban**	**Rural**	**Total**
Female Headed Households			
Total Household Income	18,611	12,474	16,084
Employed Household Head Income	7,657	3,984	5,972
Per Capita Income	3,226	2,336	2,860
Male Headed Households			
Total Household Income	21,810	14,251	18,632
Employed Household Head Income	15,173	9,924	13,048
Per Capita Income	3,807	2,328	3,185
Source: SPDC field survey in 13 districts of Pakistan			

At a regionally aggregated level, total household monthly income in MHHs is 16 percent higher as compare to that in FHHs. However, the income of the employed household head in MHH is higher by 118 percent, i.e., more than double, than the income of the employed household head in FHH. Resultantly, MHH per capita income is 11 percent higher than that of FHH.

Urban FHH income is 49 percent higher than that of rural FHH and the income of employed head in urban areas is almost twice that in rural areas. Resultantly, the per capita income of urban FHH is 38 percent higher that of rural FHH.

In the following sections, the average family income from different income sources is presented. Two broad categories covering different income sources of the family are defined to simplify the analysis. One category covers regular income such as employment, business, agricultural income (the income of the last six months converted to monthly income), pension, home remittances and foreign remittances. For the purposes of this research, pension income has been included in the regular income stream. Analysis shows that the mean pension income in FHHs is less than that received by MHHs, especially in rural areas with almost equal numbers of households. Therefore, contribution from pension would be less in total family income in FHHs compared to that in MHHs. The second category covers external income support either from non-governmental sources such as the extended family or from government social safety nets

such as Zakat, Bait-ul-Maal and the Benazir Income Support Program (BISP). Other sources of income are recorded in the category of 'others'.

Average Income from Regular Sources by Household Headship
Table 1.20 presents data for each income category and its average monthly contribution in the total household income. The first row of each income category shows the total number of households and the second row gives the mean monthly income.

In the employment category, urban MHHs have a higher average income compared with urban FHHs with a marginal difference in the total number of households. This is in contrast to rural FHHs, which receive a higher income from employment as compared with rural MHHs. At the regionally aggregated level, the employment income of FHHs is 7 percent less than that of MHHs.

A significant percentage of 38 percent households received income from business operations. The mean income from business in urban FHHs is 9 percent less than that of urban MHHs. In rural areas, this trend is reversed. Income from business for FHHs is higher than that for MHHs. However, the overall mean differential in business income by household headship is not very significant.

Table 1.20 shows that only 70 households headed by females and 92 households headed by males received agricultural income. However, the households which received agricultural income belong to the subsistence level of land holders. A comparative analysis of agricultural income shows that rural MHHs received 18 percent higher income compared with rural FHHs.

Table 1.20
Income Sources by Household Headship

Income Sources	Female Headed Households			Male Headed Households		
	Urban	Rural	Total	Urban	Rural	Total
a. Employment	320	204	524	303	218	521
Average Income in Rs.	15,558	14,868	15,289	19,381	12,312	16,423
b. Business	197	109	306	212	128	340
Average Income in Rs.	22,951	15,561	20,319	25,018	13,504	20,684
c. Agriculture	18	52	70	27	65	92
Average Income in Rs.	8,164	8,877	8,694	8,934	10,513	10,049
d. Pension	52	26	78	42	32	74
Average Income in Rs.	4,715	2,727	4,052	5,715	6,081	5,874
e. Home Remittances	8	22	30	6	9	15
Average Income in Rs.	8,000	11,932	10,883	10,883	10,333	10,553
f. Foreign Remittances	25	18	43	9	8	17
Average Income in Rs.	25,320	19,028	22,686	33,333	47,000	39,765
g. Rent of Shop/House	12	6	18	7	4	11
Average Income in Rs.	7,517	4,717	6,583	8,000	8,850	8,309

Source: SPDC field survey in 13 districts of Pakistan

Following a secular trend, workers have migrated to major urban centres and abroad for employment. Remittances of workers whether from inland or abroad are a major source of total income for many families in Pakistan. In MHHs, the total number of households receiving inland home remittances is 50 percent less than FHHs. However, the amount of such remittances is higher in MHHs, except in case of rural FHHs. A similar trend is found in foreign remittances where MHHs have higher mean income compared to that in FHHs. Urban FHHs received an average of Rs. 25,320 per month from foreign remittances compared with Rs. 33,333 received by urban MHHs. The difference in average income from foreign remittances is more pronounced in rural areas, where the average income for MHHs and FHHs is Rs. 47,000 and Rs.19, 028, respectively.

Another stream of household income is from the rent of house or shop owned by the households. Again, the average monthly income from rent is higher for MHHs compared with FHHs. This could imply a weaker bargaining power of females even with the status of household head. The overall average income from rent is 26 percent higher in MHHs as compared to that in FHHs. In summary, the amount in each category of income is less for FHHs as compared with MHHs at a regionally aggregated level.

Role of Social Safety Nets by Household Headship
The impact of poverty can be mitigated through social security and/or social safety nets programs. In Pakistan, two types of mechanisms for income support have contributed in minimizing the damage of wide spread poverty. The formal mechanism includes various government schemes and programs that are designed to provide relief to the poor in both urban and rural areas. The other is the informal cash and in kind transfers from philanthropists and charity based organisations.

The efficiency and ability of social safety nets set up by the government is questionable despite allocation of reasonable resources. The distribution of Zakat is often viewed to be controversial. The Bait-ul-Maal scheme has limited coverage and, therefore, limited impact on poverty reduction. The Benazir Income Support Program (BISP) has a large coverage and provides unconditional cash transfer to a woman in the family, which indicates a pro-woman approach towards poverty reduction.

Table 1.21 shows the extent to which households depend on the informal sources of income support as compared to various government programs. The magnitude of support from the family in both types of household is visibly larger than the cumulative support from Zakat, Bait-ul-Maal and BISP. Over dependence on support from the extended family for household income could be attributed largely to access and reliability of the support system over the complexities of bureaucratic control.

A comparison of FHHs and MHHs shows that in urban areas, FHHs receive on average less family support income than that received by MHHs. In rural areas, the reverse is true with FHHs receiving a higher income support than rural MHHs. On average, FHHs receive more benefits of the Zakat program compared to MHHs. Bait-ul-Maal coverage is negligible. The survey results demonstrate that FHHs have received more benefits from BISP as compared to the females of MHHs.

Table 1.21
Income from Social Safety Nets by Household Headship

Income Sources	Female Headed Households			Male Headed Households		
	Urban	Rural	Total	Urban	Rural	Total
a. Support from Family	63	57	120	27	14	41
Average Income in Rs.	3,821	2,984	3,424	7,222	2,157	5,493
b. Zakat Fund (Govt.)	8	3	11	4	2	6
Average Income in Rs.	2,125	2,667	2,273	850	1,500	1,067
c. Bait Ul Maal	0	1	1	0	0	0
Average Income in Rs.	0	1,000	1,000	0	0	0
d. BISP	19	20	39	5	4	9
Average Income in Rs.	3,153	1,300	2,203	1,300	2,250	1,722

Source: SPDC field survey in 13 districts of Pakistan

From the viewpoint of measuring living standards, data on household income in the survey shows glaring differences between FHHs and MHHs in urban and rural areas. Firstly, there is a 98 percent difference between the average monthly income of urban FHHs and MHHs, if only household head income is taken into account. This gap widens in case of rural areas, where the income of female heads is 149 percent less than that of rural male heads. Secondly, there is a 15 percent difference in total family income between FHHs and MHHs in urban areas while in rural areas this difference is approximately 13 percent. And thirdly, a relatively large percentage of households headed by females (7 in urban and 14 in rural areas) live with a meagre monthly income of up to Rs. 2,500 compared to 4 percent in urban and rural MHHs. Households with up to Rs. 5,000 total family income are 20 percent (urban) and 34 percent (rural) of FHHs, compared with only 9 and 14 percent of (urban) and (rural) MHHs respectively. Although these differentials verify the incidence of poverty in both the categories of households, they show that the standard of living is much lower in FHHs for a larger number of families.

Monthly Expenditure Patterns by Household Headship
Expenditure data is generally a more reliable indicator for measurement of standard of living at household level compared with income, because people are reluctant to reveal their income. Thus, it will be useful to look at living standards through expenditure patterns. For the purposes of this research, the consumption basket of goods and services has been evaluated to quantify the differences in well-being between the two types of headships.

Consumption expenditures include food, clothing, rent or house maintenance, expenditure on fuel for cooking, transport and communication, health and education. Other expenditures such as cultural entertainment, personal care, utilities and purchase of furniture or household items are included in total household expenditures. Table 1.22 shows the total expenditures and consumption expenditures by headship with an urban and rural breakdown. The total expenditure in urban MHHs is 4 percent higher than urban FHHs, which implies a relatively better living standard in urban MHHs. This is further

substantiated by consumption expenditures which are 16 percent higher in urban MHH than those in urban FHHs. In per capita terms, urban MHHs spend 5 percent more compared with urban FHHs.

Due to the lower level of total income in rural FHH, the gap in expenditure pattern is wider between FHHs and MHHs in both types of expenditures. The percentage difference in total expenditures and consumption expenditures is as high as 36 percent and 34 percent, respectively. Analysis of total expenditures on per capita basis also shows a larger gap of 16 percent between rural FHHs and MHHs.

Table 1.22
Analysis of Expenditures by Household Headship

Region	Average in Rs.		Percentage Difference
	FHHs	MHHs	
Urban			
Total Expenditures	17,668	18,361	3.9
Consumption Expenditures	12,910	14,908	15.5
Per Capita Total Expenditures	3,092	3,240	4.8
Rural			
Total Expenditures	10,491	14,254	35.9
Consumption Expenditures	8,055	10,785	33.9
Per Capita Total Expenditures	1,925	2,241	16.4

Source: SPDC field survey in 13 districts of Pakistan

Total expenditure is a strong indicator of household welfare because it can be measured with reasonable accuracy, is easy to interpret and provides a comparative framework of welfare with appropriate household ranking. The overall expenditure pattern obvious from the results of the survey shows that rural FHHs are at subsistence level with a meagre total expenditure of Rs. 10,491 per household. The total household income in rural FHHs is more dependent on informal channels such as support from family, *Zakat* and BISP. Thus, the level of dependence for livelihood is more prominent in rural FHHs compared with urban FHHs. The average per capita total expenditure in rural FHHs is much lower than in urban FHHs. It can be concluded that urban and rural MHHs have a higher standard of living than FHHs, in general, and that urban FHHs have a higher standard of living than rural FHHs.

Average Monthly Expenditures Pattern by Household Headship
Nationally, the three main components of food, clothing and shelter (residence) comprise between 60 to 70 percent of the total household expenditures as reflected in the weights (World Bank, 2008) assigned in the calculation of CPI.

Table 1.23 depicts average monthly expenditures by categories

Table 1.23
Analysis of Expenditures Heads by Household Headship

Region	Average in Rs.		Percentage Difference
	FHHs	MHHs	
Urban			
Food	6,813	8,208	20.5
Clothing	2,665	2,542	-4.6
Residence	3,377	3,412	1.0
Fuel for Cooking	524	596	13.8
Transport	1,565	1,645	5.1
Health	1,482	1,588	7.2
Education	2,616	2,957	13.0
Rural			
Food	4,624	6,728	45.5
Clothing	1,456	1,960	34.7
Residence	2,043	2,688	31.6
Fuel for Cooking	888	843	-5.0
Transport	1,051	1,158	10.2
Health	1,116	1,123	0.6
Education	1,203	1,641	36.4

Source: SPDC field survey in 13 districts of Pakistan

and the percentage difference between MHHs and FHHs. This provides an insight into both the expenditure patterns and the ranking of priorities in both types of households. There is a 21 percent difference between urban MHHs and FHHs in the consumption expenditure on food items. The average monthly expenditure on food items in urban FHHs is Rs. 6,813. On the other hand, consumption expenditure on food in urban MHHs is Rs. 8,208. In rural areas, expenditure on food in MHHs is 46 percent higher than in FHHs. Lower consumption expenditure on food in FHHs signals the un-affordability of three meals a day as well as an inability to spend on expensive food items such as meat and fruits.

Intra-family expenditure patterns by headship can be seen from the average monthly expenditures on the acquisition of social services such as education and health. In urban areas, MHHs spend 13 percent more than FHHs on education. A similar trend is seen in rural areas where MHHs spend 36 percent more compared with FHHs. Health expenditures by headship is equal in rural areas, while urban MHHs spend 7 percent more than urban FHHs.

Female Headship and Decision Making

Decision-making reflects the internal power structure within any unit, including in families. Decisions made within families can broadly be divided into the categories of major and minor. In Pakistan, major decisions refer to marriage, sale, purchase and distribution of assets, dispute resolution, household budget, education and health provision to family members and nature and extent of social relations. Minor decisions cover daily household tasks such as deciding the menu of the day, cleaning, cooking, laundering, grocery purchase, and purchase, repair and maintenance of daily-use household items.

In patriarchal societies, all major household decisions are taken by the male head. However, in cases where the male head is absent, another male member in the family arrogates the task of making decisions. Lack of participation of women in decision-making is due to the centuries old subjugation and oppression that has a historical as well as cultural context. This has been compounded by feudal and tribal traditions. The 'orthodox stature' of women in society often compels them to relinquish their rights for the sake of modesty and respectability and bow to the decisions made on their behalf by men.

Nevertheless, other factors such as changing family structures, economic pressures, education, urbanization and technology are beginning to influence and reshape these practices and norms. Further, government policies, advocacy by women rights groups and the role of media have augmented the process of recognition of women rights in Pakistan. Though the process of empowerment of women may be considered still very slow, some progress is visible at the societal level especially in urban areas. Emphasizing the importance of education and female labour force participation in decision making, Mubashir & Sultan (1999) argued that by acquiring education, women are exposed to the outside world; thus, improving their perspectives and attitudes. Economic emancipation

comes from earning money, allowing them to take some degree of control over their lives. In other words, female education and employment provides confidence; which, in turn, allows women to take decisions that affect their lives.

When analyzing female-headed households, it is important to establish the extent of female participation in decision-making. The economic vulnerability of FHHs in household affairs is measured through data collected on the last debt and borrower. As micro-credit schemes for women have been established, the role of male family members in the case of a loan acquired by a female family member was analyzed. Allocation of resources and setting priorities at various levels are major components of decision-making. The comparison of FHHs with MHHs in intra family resource allocation and setting gender specific priorities helped in identifying the gaps and impediments confronted in ensuring gender equality in decision-making.

Family Debt by Income Quintiles

The availability of micro-credit to women in Pakistan gained momentum during the 1990s in an attempt to replicate the success story of Grameen Bank in Bangladesh. The government initiative remained limited until the establishment of the Pakistan Poverty Alleviation Fund in 1997, when many non-governmental organizations (NGOs) established micro-credit schemes for targeting poor and vulnerable women in areas where the government was unable to provide credit facilities. The issues emanating from food insecurity and the higher incidence of poverty among females were attempted to be addressed through improved female entrepreneurship along with various microfinance schemes.

Table 1.24 presents household debt by income quintiles of female and male-headed households. The total family debt as shown in the table is higher for urban and rural FHHs; 35 percent and 41 percent, respectively, as compared to 24 percent in urban MHHs and 35 percent in rural MHHs.

In the lowest 20 percent income quintiles, only 3 percent urban and 6 percent rural MHHs are under debt while corresponding figures for FHHs are 10 percent and 16 percent, respectively. If the first two income quintiles are added for both urban and rural areas by household headship, it presents some interesting results that indicate a high debt burden

Table 1.24
Household Debt by Income Quintiles by Region
(Percent)

Household	Urban		Rural	
	Yes	No	Yes	No
Female Headed Households				
Lowest 20%	9.5	10.8	16.0	19.3
Lowest -to-Middle 20%	10.6	9.3	9.4	10.0
Middle 20%	5.9	10.1	8.2	10.3
Middle-to-Highest 20%	5.3	15.4	5.1	11.2
Highest 20%	3.8	19.2	2.1	8.5
Total	35.1	64.9	40.8	59.2
Male Headed Households				
Lowest 20%	2.6	6.7	5.9	8.9
Lowest -to-Middle 20%	6.4	9.9	11.5	17.8
Middle 20%	4.7	15.0	7.7	13.6
Middle-to-Highest 20%	6.2	20.4	7.1	13.6
Highest 20%	3.6	24.5	2.7	11.2
Total	23.6	76.4	34.9	65.1

Source: SPDC field survey in 13 districts of Pakistan

household headship, it presents some interesting results that indicate a high debt burden

in urban FHHs (20 percent) compared with urban MHHs (9 percent) only. The gap of debt burden in rural FHHs and MHHs is 25 percent and 17 percent, respectively.

Household debt in the highest income quintiles in both types of households is marginally different even in urban and rural areas. These are high interest cost loans that have long gestational period of maturity. Only 9 percent of urban FHHs households have family debt in the high income quintiles compared to 10 percent MHHs. This difference for the highest two income quintiles in rural areas is 7 percent for FHHs and 10 percent for MHHs. The data shows that FHHs have more family debt as compared to MHHs. The two lowest income quintiles in FHHs are more vulnerable to financial crisis compared with the same category in MHHs.

Household Decision Making

The relative extent of male-female authority can also be gauged with regard to decision-making in every-day household tasks. Table 1.25 indicates that 72 percent of MHHs in urban areas do not allow females to take decisions on what is to be cooked. Even in urban FHHs, a significant percentage of 7 percent male household members intervene in such decisions. In rural areas, male dominance is visible with 75 percent male heads taking such decisions. The elder males and earning sons also have a significant share in everyday decision-making in rural FHHs and MHHs.

The findings reflect a society where females do not exercise power even if they head the household because they are conditioned to accept male authority due to the strong patriarchal system.

In response to the supplementary question on whether females are allowed to purchase items without permission, 50 percent of women in rural and 40 percent in urban areas responded in the negative. In MHHs approximately 95 percent females have to seek consent from the household head prior to the purchase of items, while approximately 85 percent females required permission from males in the household in FHHs.

An important aspect that measures women's empowerment is the ownership of assets or the authority to sell and purchase these assets. There is a tradition of employing ways and means to prevent women from inheriting property, despite laws. These practices are prevalent particularly in rural areas. A common view held by men is that a woman's share

Table 1.25
Every Day Decision Making by Headship
(Percent)

Decision Maker	FHH	MHHs	Total
Urban			
Household Head	86.9	71.5	79.2
Elder son	1.9	2.1	2.0
Elder daughter	0.6	0.2	0.4
Earning son	2.1	1.3	1.7
Earning daughter	0.6	0.0	0.3
Husband/Wife	6.8	22.7	14.7
With Consent of All	1.1	2.1	1.6
Total	100.0	100.0	100.0
Rural			
Household Head	89.7	75.1	82.4
Elder son	3.9	3.3	3.6
Elder daughter	0.3	0.0	0.1
Earning son	1.8	1.8	1.8
Earning daughter	0.6	0.0	0.3
Husband/Wife	3.6	18.6	11.2
With Consent of All	0.0	1.2	0.6
Total	100.0	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

is transferred by giving dowry at the time of marriage. For unmarried females, sometimes the assets are transferred in her name without allowing her any control over them.

Table 1.26 shows the proportion of female participation in major decisions such as sale and purchase of assets at household level. Female participation is relatively low in urban areas where only 69 percent of female heads can make such decisions compared to 94 percent of male heads. In rural FHHs, 60 percent of female heads can take such decisions. In MHHs, a small 3 percent of the wives have a say in asset related decisions.

Decision about Education

Decisions regarding children's education are particularly important with respect to sending girls to school. This section highlights household behaviour in terms of gender preference for education in case of financial

Table 1.26
Sale and Purchase of Assets
by Household Headship

(Percent)

Decision Maker	FHH	MHHs	Total
Urban			
Household Head	69.1	93.6	81.3
Elder son	2.5	0.9	1.7
Elder daughter	0.8	0.0	0.4
Earning son	3.4	0.6	2.0
Earning daughter	0.4	0.0	0.2
Husband/Wife	18.6	2.8	10.8
Daughter-in-law	0.6	0.0	0.3
With Consent of All	4.4	2.1	3.3
Total	100.0	100.0	100.0
Rural			
Household Head	60.4	92.0	76.4
Elder son	9.7	1.2	5.4
Elder daughter	0.0	0.0	0.0
Earning son	10.9	0.0	5.4
Earning daughter	0.3	0.0	0.1
Husband/Wife	16.9	4.4	10.6
Daughter-in-law	0.0	0.6	0.3
With Consent of All	1.8	1.8	1.8
Total	100.0	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

crisis. Another indicator of gender preference of education is the type of school boys and girls are sent to. The data for each question has been analysed by type of household headship with an urban-rural dimension.

Education during Financial Crisis by Household Headship
The income elasticity of demand for education is fairly high, particularly for girls. As such, financial crisis, rising inflation and increasing poverty are some of the major causes of discontinuation of school. Herewith, it is important to understand whether school dropout is in any way related to the type of household headship or gender of the child.

In urban areas, 51 percent of FHHs would ensure that there is no discrimination between the girl and boy child if a financial crisis hits the family. For urban MHHs this figure rises somewhat to 56 percent. However, a large 22 percent of FHHs and 18 percent of MHHs would discontinue female education in case of a financial crisis, while only 7 percent in FHHs and 11 percent in MHHs would do the same for boys. Similarly, the trend of female dropout is more pervasive in rural areas where 35 percent of FHHs and 32 percent of MHHs would withdraw females from schools if hit financially. Rural household heads seem more biased towards the male child as only 8 percent in FHHs and 11 percent in MHHs would stop their education.

Some important aspects of gender preferences for education can be highlighted here. Firstly, a higher percentage of female education discontinuation is witnessed as

compared to male discontinuation by rural FHHs. Secondly, in both types of households whether in urban or rural areas, preference for male child education is a higher priority of the household because boys are considered as a future investment in family income while the girl's education would benefit (in case of marriage) another household. Lastly, approximately 50 percent of FHHs and MHHs in urban areas did not discriminate between girl-child and boy-child as compared to rural areas where only one-third of the household heads have the same views as in urban areas.

Preference for Private Educational Institution by Household Headship
The gender discrimination aspect in case of a financial crisis is complemented by the question about the perceived quality of education. The survey confirms the assumption that both households would prefer to send the boy to a private school (hence spending scarce resources) and send the girl to a government school where expenses are minimal and the quality is questionable. The boy-child is preferred over the girl-child in both types of households. In urban FHHs, 21 percent of household heads would prefer to send the boy-child as against 3 percent for the girl child to a private school. Similarly, 17 percent urban MHHs viewed boy-child education in private institution preferentially as against only 4 percent for the girl child. However, in urban areas 62 percent in FHHs and 66 percent in MHHs takes an impartial view about education in private institutions.

In rural areas, FHHs view the boy-child as future economic security; thus, showing their intentions to provide better education facilities in comparison with the girl-child who is always considered a transitory family member; 33 percent of rural female heads would opt for private institutions for the boy-child as against only 6 percent for girl-child. Discrimination by female heads in rural areas is evident as 39 percent in FHHs would prefer both for private education as compared to a 44 percent of MHHs.

Decision on Health Services
Access to and quality of public sector health care services is generally low in Pakistan. The result has been a shift of demand towards private health care institutions. In rural areas, people resort to conventional methods of health practices instead of government hospitals and clinics, thus lowering the demand of health care services substantially. Even where demand is high, the supply of trained medical professionals and necessary supplies is limited.

Over the last twenty years, however, non-utilization behaviour has changed substantially and now women seek formal medical treatment even in rural areas; where in the past, cultural and traditional customs did not permit them to do so. The survey conducted has produced some useful data on maternal health, child immunization, female and male medical treatment and gender preference in using health services.

Contradictory to the presumption that 83 percent of urban and 76 percent of rural female heads have decision-making authority related to seeking medical services. In addition, 9 percent of female household members in urban areas and 15 percent in rural

areas can decide about medical treatment for females. Surprisingly, MHHs have a strong influence over decisions related to the treatment of female family members as 71 percent in urban and 68 percent in rural areas have taken such decisions. Though over 25 percent of female family members in MHHs have a role in decision-making about females, the concentration of authority in the male head of household for female medical problems highlights the dominance of the male once again.

The survey findings also show a role of the earning son in FHHs for the treatment of female family members. About 3 percent earning sons in urban and rural FHHs take decisions about the medical treatment of female family members.

Decisions related to Maternal Health

An improvement, over the years, in pre-and-post natal care has led to a decreasing trend in maternal and infant mortality rates in Pakistan. In 1990, infant mortality rate per live 1000 births was 102, which declined to 73 in 2008. Maternal mortality which was 500 per 100,000 live births in 2000 decreased to 276 in 2007[8]. These rates are, however, still one of the highest in South Asia.

According to the PSLM 2006-07, 78 percent of births in rural areas take place at home with the help of traditional birth attendants, some of whom are trained and others not. The reason for this practice is embedded partly in the customs and practices that they largely continue to follow and, partly in the lack of access to government clinics and high cost of formal private services.

The survey addressed the issue of maternal health and decision making from two angles. The first attempted to analyze change in behaviour in case of medical attention to pregnant women at household level both in urban and rural areas and the second, to determine the decision-making authority for pregnant women. Only clinical/medical treatment is taken into consideration. No other method such as homeopathic, hakims, family practices, unregistered birth attendants (dais) have been taken into account. Consultation with lady health workers (LHWs) in a formal setting is considered as medical treatment.

Table 1.27 presents the urban and rural data for both FHHs and MHHs for the treatment of pregnant women. Over 95 percent female heads in urban areas take

Table 1.27
Medical Treatment to Expecting Mothers by Household Headship

(Percent)

Region	FHH	MHHs	Total
Urban			
Household Head	74.4	48.1	61.3
Female Household Members	20.9	49.6	35.1
Earning Son	0.8	0.6	0.7
Earning Daughter	0.4	0.2	0.3
Medical Treatment is not Provided	0.0	0.2	0.1
Consensus of Elders	2.5	1.1	1.8
Husband & Wife Both	0.8	0.2	0.5
Total	100.0	100.0	100.0
b. Rural			
Household Head	64.7	38.8	51.6
Female Household Members	9.1	45.6	45.3
Earning Son	1.5	0.6	1.0
Earning Daughter	0.3	0.0	0.1
Medical Treatment is not Provided	21.1	14.8	0.1
Consensus of Elders	1.5	0.3	0.9
Husband & Wife Both	1.8	0.0	0.9
Total	100.0	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

decisions related to pregnancy related medical treatment. This figure drops to 74 percent with 21 percent of pregnant women in FHHs in rural areas not allowed to avail clinical treatment. Due to family customs and pressures, the rural womenfolk continue to bear the inevitable pregnancy related complications without treatment.

In MHH, decision to seek clinical assistance in pregnancy related cases in taken by women in 98 percent of urban households and 84 percent of rural households treatment for pregnant women. Traditional practices for expecting women are evident also in rural 15 percent women are not allowed formal medical treatment.

Decisions Related to Child Immunization

Immunization does not confer any immediate health benefits. As such, immunization does not command the necessary sense of urgency among parents and there is widespread lack of awareness and even superstition surrounding immunization among a large number of people. In Pakistan, despite free-of-charge vaccination services, only 75 percent of children aged 12-23 months are fully immunized[9]. Since families do not bear any cost of vaccination, household behaviour and decision-making have become instrumental factors for low immunization coverage.

The survey included questions related to child immunization from the viewpoint of decision-making. It can be seen from Table 1.28 that child immunization is the decision of females in the household structure, as 96 percent of such decisions in urban FHHs are either taken by the household head or other female family members. This ratio is similar in rural FHHs, indicating better knowledge and understanding of the value of child immunization in the female population.

In MHHs, female participation in decision making is over 50 percent in both urban and rural areas. This reflects the changing role of females in the decision-making process at the household level. Women in MHHs do not control financial assets and are not allowed to take part in major decisions, but are beginning to assert themselves in some decisions related to the future health of the family.

Table 1.28
Decision of Child Immunization
by Household Headship

(Percent)

Region	FHH	MHHs	Total
Urban			
Household Head	76.7	47.4	62.2
Female Household Members	19.5	50.4	34.8
Earning Son	0.6	0.6	0.6
Earning Daughter	0.2	0.0	0.1
Consensus of Elders	2.3	1.3	1.8
Daughter-in-Law	0.2	0.0	0.1
Husband & Wife Both	0.4	0.2	0.3
Total	100.0	100.0	100.0
Rural			
Household Head	72.5	45.6	58.9
Female Household Members	23.9	53.6	38.9
Earning Son	1.5	0.6	1.0
Consensus of Elders	1.5	0.3	0.9
Husband & Wife Both	0.6	0.0	0.3
Total	100.0	100.0	100.0

Source: SPDC field survey in 13 districts of Pakistan

Testing Living Standards Differential between FHH and MHH

A simple t-test of equality of means is conducted to show the difference in overall well-being of households in terms of total income and expenditures differential, expenditures on food, education and health, ownership of assets, empowerment and primary enrolment ratio for girls and boys. All variables except ownership of assets and empowerment are taken on a per capita basis.

The statistical technique of using the mean of two distinct variables to measure the difference in overall well-being at household level is simple and widely acceptable. In this case, FHHs have some peculiar socio-economic characteristics that are meaningful only when compared with those in another group i.e. MHHs. The application of a t-test of equality of means would determine the level of significance of the differences in the two types of households.

In the literature of statistics, there are two types of techniques used for hypothesis testing i.e., the confidence interval approach and test of significance approach. The former refers to testing of a hypothesis by using a confidence interval that provides a set of plausible null hypotheses. The latter uses sample results to verify the truth or falsity of the null hypothesis[10]. The test of significance (also called the "t-test") implies that 'null hypothesis is tested from the sample data and t-value provides the basis of acceptance or rejection of null hypothesis.' For this study, test of significance approach will be used to provide statistical significance of the null hypothesis. It may be concluded from the analysis of preceding sections that FHHs are more vulnerable in terms of income, employment, education, ownership of assets, enrolment of boys and girls in schools, and consumption expenditures on essential items such as food and clothing. Running a test for statistical significance on all these variables would either reject or fail to reject the null hypothesis that 'female-headed households are more vulnerable than male-headed households'.

Table 1.29 presents the total number of observations (N), difference in mean value of the variables, t-statistics and its level of significance in both types of households. The per capita income and expenditure represents the overall financial status of the household while per capita food expenditure shows the existence or otherwise of food poverty at household level. The per capita expenditure on education and health demonstrates expenditure priorities and intra family expenditure allocation in both types of households. Ownership of assets is an important indicator for the measurement of overall well-being at household level and is included here. From the perspective of female headship, empowerment and ownership of assets are important indicators that reflect the authority and power of a woman at household level. Primary enrolment rate for girls and boys is the key of household analysis from the viewpoint of human development. Analysis of the survey data presented in earlier chapters reveals that female heads of households are less empowered than their male counterparts, but this finding requires statistical confirmation.

The test for equality of the means was conducted on a total sample of 804 FHHs and MHHs against the hypothesis that FHHs are more vulnerable than MHHs. If this hypothesis is not to be rejected (and, therefore, is accepted) for every variable in Table 1.29, the average mean value of MHHs would be significantly higher than the average mean value of FHHs with a statistical significance of 5 percent.

In case of per capita expenditure, the mean value difference is not statistically significant; implying a rejection of null hypothesis as there is no difference between the mean values. However, the difference of mean per capita expenditures on food is significant with high t-value of 3.99; indicating higher food expenditures in MHHs compared to FHHs. Per capita income shows a significant t-value of 1.94 at a 5 percent

Table 1.29
T-test for Equality of Mean for Overall Sample

Variables	N	Mean	T	sig.
Per Capita Total Expenditures				
Male	804	2819.8	1.30	0.19
Female	804	2611.9		
Per Capita Income				
Male	804	3185.1	1.94	0.05
Female	804	2859.8		
Per Capita Food Expenditures				
Male	799	1227.1	3.99	0.00
Female	801	1055.9		
Per Capita Education Expenditures				
Male	529	773.7	1.45	0.15
Female	505	680.6		
Per Capita Health Expenditures				
Male	506	238.8	0.75	0.45
Female	512	220.4		
Ownership of Assets				
Male	803	7.5	6.30	0.00
Female	802	6.5		
Empowerment				
Male	804	2.1	5.68	0.00
Female	804	1.2		
Primary Enrolment Rate (Male)				
Male	105	1.1	1.56	0.12
Female	79	1.0		
Primary Enrolment Rate (Female)				
Male	87	1.2	0.71	0.48
Female	77	1.1		

Source: SPDC field survey in 13 districts of Pakistan

confidence interval; implying acceptance of the hypothesis. The high t-value suggests that the mean per capita income in FHHs is less than the corresponding income in MHHs. This shows the vulnerability of FHHs in terms of per capita income.

Another important aspect of measurement of living standard at household level is the ownership of assets. The assumption of FHHs having less possession of assets is validated from the t-test, which shows a significantly high t-value of 6.30. Table 1.29 also shows that FHHs are less empowered in comparison with MHHs, as the difference in the mean is highly significant. Empowerment is calculated from different sets of questions in the empowerment and decision-making modules of the survey questionnaire. All the positive replies for heads of household are assigned a value of 1 that are added up at household level to construct an empowerment variable. A high t-value of 5.68 implies that FHHs have less decision-making authority and empowerment compared with MHHs. Primary enrolment rates for boys and girls are not statistically significant that means no difference in the enrolment ratio between FHHs and MHHs.

The above analysis proves statistically that FHHs are more vulnerable than MHHs in the four key variables that define the well-being of a household: per capita income, per capita food expenditures, ownership of assets and empowerment. The results also prove that despite being the heads of households, females lag behind in ownership of assets and empowerment, and the authority and power exercised by female heads at household level is far less than that of male heads. No difference in the mean per capita education and health expenditures implies that intra family expenditure patterns for access to social services is identical in both types of households. There is also no marked difference in the primary enrolment rate for males and females in both FHHs and MHHs, showing no difference in human development.

Measuring Living Standard: Household Headship with Lowest Income Quintile

Another statistical test was conducted to measure the difference in living standard in households in the lowest income quintiles. The primary objective of this analysis is to identify the vulnerability (if any) of FHHs in comparison with MHHs. A t-test for equality of means was carried out against the hypothesis "FHHs in the lowest income quintile are more vulnerable than the lowest income quintile in MHHs." The test was applied on the same variables used in Table 1.29to examine the results in the lowest income quintiles.

Table 1.30 shows that except for per capita income and primary enrolment rate for male and female children, the remaining variables show a large difference in mean values signifying that FHHs in the lowest income quintile are more vulnerable than MHHs in the same category.

Table 1.30
Household Headship and Lowest Income Quintile
T-test for Equality of Mean

Variables	N	Mean	T	sig.
Per Capita Total Expenditures				
Male	93	2487.9	4.02	0.00
Female	213	1468.4		
Per Capita Income				
Male	93	721.4	0.88	0.38
Female	213	654.8		
Per Capita Food Expenditures				
Male	92	1096.3	4.70	0.00
Female	212	700.2		
Per Capita Education Expenditures				
Male	39	950.7	2.89	0.00
Female	116	414.3		
Per Capita Health Expenditures				
Male	43	352.2	2.30	0.02
Female	130	166.3		
Ownership of Assets				
Male	93	6.4	4.72	0.00
Female	212	4.8		
Empowerment				
Male	93	2.5	2.02	0.04
Female	213	1.6		
Primary Enrolment Rate (Male)				
Male	14	1.1	0.62	0.54
Female	18	1.1		
Primary Enrolment Rate (Female)				
Male	3	1.7	1.52	0.14
Female	29	1.2		

Source: SPDC field survey in 13 districts of Pakistan

In particular, a large difference in mean values for per capita total expenditure can be seen from Table 1.30 which also shows a high t-value of 4.02 with a high level of significance. Food poverty in the lowest income quintile is visible in FHHs, as on average they spend only Rs. 700 per capita per month as food expenditure. This comes to Rs. 23.34 per capita per day which is barely sufficient for one meal. For MHHs, daily per capita food expenditure calculated at Rs. 36.54 is still not adequate for three meals but is better in comparison with FHHs.

The mean difference in human development indicators such as per capita expenditures on education and health are significantly higher in MHHs compared with FHHs. Mean per capita education expenditures in MHHs is Rs. 951 as against Rs. 414 in FHHs. Higher t-value of 2.89 with significance level at 0 percent has authenticated the low expenditure priorities of FHHs in education.

One must make a distinction between poverty and lack of ownership of assets as it has been generally argued that in the presence of liquid and non-liquid assets a household cannot be classified as poor. All assets have some value of convertibility in monetary terms but not all have the same potential to prevent a household from falling in the poverty trap. Belsky and Calder (2004) believed that "even if households were to liquidate all their assets and use them to repay all their debts, one-quarter of them still would not have enough to cover three months of basic living expenses." In Pakistan, ownership of assets in the lowest income quintiles is largely restricted to livestock and home appliances such as irons, sewing machines, electric fans, radio and television sets. These assets have low market value that could not cover even one month of living expenses of a household. Belsky and Calder called this 'severe asset poverty in lowest income quintile.'

A statistical analysis was carried out on the sample data to determine which group has severe asset poverty. It can be seen from Table 1.30 that FHHs have significantly higher asset poverty compared with MHHs. A high t-value of 4.72 with significance level at 0 percent suggests that MHHs have relatively better asset possession compared with FHHs.

Measuring Living Standard: Household Headship with Highest Income Quintile
It is commonly believed that economic status beyond a certain point dissolves the boundaries of caste ethnicity, and gender and that commonalities in the socio-economic and cultural characteristics lead to reduced gender discrimination in providing health and education, and bias in intra-family expenditure allocation.

The rationale for the application of t-test for equality of mean on the highest income quintile is to examine the change in the economic and social status of FHHs in comparison with MHHs in the same category. All the variables are tested against the hypothesis: "FHHs in highest income quintile are more vulnerable than highest income quintile MHHs."

Of the total sample 22 percent of MHH and 18 percent of FHH are in the highest income quintile, i.e., the top 20 percent. Table 1.31 presents an analysis of the socio-economic equality between FHHs and MHHs. All variables show insignificant difference in

Table 1.31
T-test for Equality of Mean

Variables	N	Mean	T	Sig.
Per Capita Total Expenditures				
Male	178	4798.4	-1.93	0.05
Female	144	5534.0		
Per Capita Income				
Male	178	7310.2	-1.30	0.19
Female	144	8024.4		
Per Capita Food Expenditures				
Male	177	1831.9	-0.81	0.42
Female	142	1920.8		
Per Capita Education Expenditures				
Male	128	1589.4	-0.12	0.90
Female	105	1612.2		
Per Capita Health Expenditures				
Male	124	366.8	-0.22	0.82
Female	97	383.8		
Ownership of Assets				
Male	177	10.1	0.57	0.57
Female	144	10.0		
Empowerment				
Male	178	1.1	2.42	0.02
Female	144	0.4		
Primary Enrolment Rate (Male)				
Male	18	1.3	1.35	0.19
Female	8	1.0		
Primary Enrolment Rate (Female)				
Male	12	1.0	-	-
Female	10	1.0		

Source: SPDC field survey in 13 districts of Pakistan

the mean values except empowerment. In other words upper class FHH are not more vulnerable relative to upper class MHH with respect to income, expenditure in food, education and health or in ownership of assets. The analysis shows no evidence of increased empowerment, power and decision-making authority of females in the higher income groups of the FHHs, given the t-value of 2.42 at 2 percent significant level. This shows that empowerment and decision-making authority in FHHs rests with other family members, possibly a male.

Key Findings and Policy Implications

Empowerment is one of the features of female headship and the main sources of power and authority are stated to be education, employment and income. Yet, the sample data shows that these factors have low weight in determining female headship. Rather, age is the man determinant of female headship. The results are somewhat contradictory with the established theories of empowerment. Female empowerment in the context of Pakistan is

largely derived from customary practices that place elderly females at the highest level of decision-making at household level and most of these females are either widows or divorcees. Education, employment and income do influence female headship, but the extent of its significance is less than the age factor. In any case, headship does not necessarily confer decision making authority. Despite being the heads of households, females lag behind in ownership of assets and major decisions, such as sale and purchase of assets, are still male dominated – even in case of assets that women own. Decision-making in FHHs is largely restricted to every-day affairs and, in some cases, in matters related to health care for women and children.

Comparison of socioeconomic characteristics between female and male headed households reveals significant differences in overall well-being. One possible reason for high poverty in both urban and rural FHHs is the higher percentage of widows, who are illiterate and unemployed as well. As such, FHHs are more vulnerable to economic shocks, as they are unable to cushion themselves in terms of assets or savings in case of any financial crisis. Majority of FHHs consider inflation, unemployment, job insecurity and rising debt as major causes that impede improvement in their living standards. Lack of adequate medical facilities is also highlighted by rural FHHs. The findings reflect a society where females are not able to exercise power even if they head the household because they are conditioned to accept male authority due to the strong patriarchal system.

Given that information on FHHs is limited, there is a dire need for more research on varius aspects that relate to them. This is necessary to comprehend, conceptualize and contextualize the multifaceted perspectives of the challenges faced by women and their roles and for informed policy formulation.

In order to address the socioeconomic vulnerabilities of FHHs, three areas of intervention are important.

- Close the gender gap in education and expand enrolment of girls and women at all level, including tertiary.
- Expand and improve public health care facilities for women, particularly in rural areas.
- Expand social security coverage, i.e., BISP, for FHHs.
- Strengthen the legal framework with respect to ownership of land and property and inheritance to protect and enhance women's interests.
- Launch a public awareness campaign to sensitize the population with regard to the concerns and issues of FHHs.

NOTES

1.   HIES 2004-05 was conducted as part of first round of PSLM survey covering 14, 708 household taken as sub-sample of the 77,000 household of PSLM survey. HIES 2005-06, page 1.

2.   HIES 2005-06, Chapter 3, Page 13.

3.   The World Bank (2009), World Development Indicators 2009.

4.   Pakistan Economy Survey 2008-09, page 188.

5.   Economic Survey of Pakistan 2008-09, Statistical Appendix Table 1.1 page 10.

6.   Pakistan Social and Living Standard Measurement (PSLM) Survey 2006-07, page 65.

7.   By dividing 24.34 million households with the 20 million cell phones.

8.   The World Bank, Data and Statistics, http://www.worldbank.or.pk; World Health Statistics 2008.

9.   Pakistan Economic Survey 2008-09, Table 7.3, page 109

10. Gujrati, D.N. (1995) Basic Economietics, p.124

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2 Gender Dimensions of Public Spending on Education and Health

Sustainable development of nations begins with the development of human resources whereas both education and health are considered critical determinants of economic productivity, which contains several positive externalities[1]. Moreover, success in achieving the Millennium Development Goals (MDGs) cannot be comprehensive without achieving targets related to primary education and health such as achieving universal primary education, reducing child mortality, improving maternal health and combating HIV/AIDS, malaria, and other diseases. The experiences of developed countries show that access to these services has played an instrumental role in empowering women. Therefore, policies to improve the level of educational achievement and health status of the poor have become an important focus of development policies both at international and national levels. However, inequalities in access to education and health services between males and females are found in many countries across the regions including Pakistan.

A combination of social, cultural, and economic disadvantages has been instrumental in preventing young girls and women from either accessing to or completing schooling. Similarly, their right to healthcare is limited and is of poor quality when compared to those available for men. At the policy level, these disadvantages can be addressed by introducing gender sensitive budgets, which would help cater the unmet needs of women and girls particularly belonging to poor income groups.

In order to make public expenditure gender sensitive a range of technical tools are available. Gender Disaggregated Benefit Incidence Analysis (GDBIA) is one of the basic tools suggested by a feminist economist Diane Elson[2]. It is commonly perceived that a budget is a gender-neutral policy instrument containing a set of expenditures with no particular mention of women or men. In reality most budgets are "gender blind." They ignore the differences between women, men, boys and girls and hence fail to address the specific needs of women and girls. GDBIA is a monitoring tool which is used to analyze the extent to which men and women, girls and boys benefit from expenditure on publicly provided services like education and health.

In addition, public expenditure on education and health can affect the population in a number of ways, which have significant gender dimensions. For example, government spending on primary education compared to that of tertiary education would probably generate more income for women because there are relatively more female teachers in primary schools. Similarly, compared to tertiary health care, government spending on primary health care is likely to generate more income for women, because there are relatively more lady health workers/visitors than women professors at universities and women doctors at teaching hospitals. Moreover, these expenditures provide subsidized

education and health services, which is a form of "in kind transfers". These "in-kind transfers" improve the current well-being of the recipients, and enhance their income-earning potential and their ability to undertake other productive and reproductive tasks. These can be considered both current and capital transfers to the recipients, and therefore could be termed as the "benefit incidence" of public spending.

Gender Disaggregated Benefit Incidence: Concepts and Methodology

Gender disaggregated benefit incidence is a method that addresses poverty and gender concerns in public expenditure allocations by incorporating the demand side[3]. It also examines the share of benefits accrued by different groups from public expenditures by gender. This approach focuses on the value of the cost to government per unit (household or individual). When taken in conjunction with the outcome of any cost recovery measures, this permits an estimate of the Government subsidy per unit[4]. The distribution of subsidies depends on two factors: (1) allocation of government spending (government spending itself, and how it is allocated within the sector); and (2) household behaviour (gender inequalities in the distribution of the benefits of public spending frequently arise because of a bias within households that limits women's access to publicly provided services).

The technique usually involves a three-step methodology. First, estimates are obtained of the unit cost of providing a particular service. These are usually based on officially reported public spending on the service in question. Second, these unit costs are imputed to households, which are identified (usually through a household expenditure survey) as users of the service. Households, which use a subsidized public service in effect, gain an in-kind transfer, the size of which depends on the unit subsidy involved and the number of units consumed by the household. Finally, aggregated estimates of benefit incidence are obtained in groups arranged by income and sex. In brief, the benefit incidence analysis measures the distribution of in kind transfers across households. Detailed methodology is presented in Annexure 2. The terms used in estimation of gender disaggregated benefit incidence analysis are presented in Box 2.1.

| **Box 2.1** |
| **Benefits Incidence Analysis: Definitions** |
| *Gender Disaggregated Benefit Incidence Analysis (GDBIA)* describes the distribution of public spending across males and females ranked by their income. |
| *Gross Enrollment Rate (GER)* is expressing the number of students enrolled in primary, secondary and tertiary levels of education, regardless of age, as a percentage of the population of official school age for the these levels. |
| *Gross per Unit Subsidy in Education* is calculated as the total recurrent spending of (local, provincial and federal) governments on a specific level of public education divided by the total number of students of the same level in the province. |
| *Gross per Unit Subsidy in Health* is calculated as total recurrent spending of (local, provincial and federal) governments on general hospitals and clinics divided by total number of visits by patients. |

Literature Review

Despite the importance attached to gender differences in access to public services, the literature on expenditure distribution in gender-based budgeting (Cagatay, et.al., 2000, Budlender and Sharp, 1998, Elson, 1991 and 1997) is scarce[5]. An overview of published and publicly available research illustrates a few studies that actually carried out a systematic analysis.

Education

Demery et al. (1995) did an analysis for subsidies of public schools in Ghana. They found that the share of girls in primary school subsidies was 47 percent and for secondary school subsidies was 41 percent. These shares were fairly constant across the expenditure distribution, except for secondary schools, for which girls' share in the lowest quintile was only 30 percent. This too was consistent with DHS schooling data analyzed by Filmer (1999). Although these two country studies do not permit general conclusions, one insight is that the gender-income interactions are not assumed to operate the same way in all countries, even in neighbouring countries. In Ghana, there was little such interaction for primary schooling, but some evidence for it occurs at the secondary level. And in Côte d'Ivoire, the opposite was true.

Demery, Dayton, and Mehra (1996) examined the incidence of public expenditures in Côte d'Ivoire. They found that girls received 42 percent of public primary school subsidies, while girls in the first quintile received only 33 percent of that quintile's subsidies, and girls in the top quintile received 54 percent. A similar pattern was found in Demographic and Health Survey (DHS) data for Côte d'Ivoire analyzed in the study by Filmer (1999). Surprisingly, the same correlation is not found in public secondary school subsidies, where girls' share of subsidies was fairly constant across the expenditure distribution.

Filmer (1999) used the DHS to examine differences in school attendance rates for boys and girls and rich and poor. The DHS data did not include household expenditures, but they included variables which allowed Filmer to create an index of wealth – assets owned by the households – using principle components methods. Filmer then divided households into poor, non-poor, and rich, based on the value of this index. While this approach is obviously approximate, the great advantage of the DHS data is that they are available for many countries at many points in time, and the surveys are standard across countries and time.

Public Expenditure Review for Malawi (2001) provided primary school enrollment rates for boys and girls across the expenditure distribution. They found that male enrollment rates were somewhat higher than female rates, but the difference was similar across the expenditure distribution and across time (between 1990 and 1997). This occurred despite a significant increase in enrollments between these two years, especially among children from poorer households.

Sahn and Younger (2000) briefly mentioned gender/expenditure differences in their study on health and education benefits for eight African countries. Unlike all of the studies cited so far, which present their results in terms of shares of benefits by expenditure quantile and gender, Sahn and Younger used cumulative shares of benefits across the expenditure distribution – concentration curves – because they have an intuitive grounding in the theory of welfare economics (Shorrocks, 1983; Yitzhaki and Slemrod, 1991). The authors used statistical tests for differences in cumulative distributions rather than simply comparing central tendencies. Using a demanding statistical criterion that these tests require, Sahn and Younger found only one public health or education service in one country – primary education in Uganda in 1992 – in which the concentration curves differed significantly by gender. This does not mean that they find gender equality, but rather, that the degree of gender inequality is relatively constant across the expenditure distribution.

Sabir (2002) reviewed the benefit incidence of government education spending. He found that government subsidies directed towards primary education are pro poor in all four provinces of Pakistan. However, subsidies directed towards higher education are poorly targeted and the poorest income group receives less than the richest income group, and indeed favours those who are better off. Similarly, the gender disparity in access to public subsidy is higher at tertiary level and lowest at primary level, which also reflects poor targeting.

Cuenca (2008) wrote a methodological note to illustrate the difference in benefit incidence estimates that are obtained by using deciles of population/individuals in lieu of deciles of households. Her analysis showed that on the whole, total government spending on all levels of education was found to benefit poorer households more than richer households regardless of whether the analysis is done based on deciles of households rather than deciles of population. However, her results demonstrated that the degree of progressivity differs depending on how the deciles are defined. Based on this analysis, she concluded that the choice between deciles defined over population/individuals and deciles defined over households depends on the government service in question and on its target beneficiaries.

Sakellariou and Patrinos (2009) analyzed the equity effects of public subsidization of private schools in Côte d'Ivoire. They found that the subsidy per student in private and public schools increases as one goes to higher household per capita expenditure groups. Students from families in the highest expenditure quartile received twice the subsidy received by students from families in the lowest quartile, compared to four times more in the case of students attending public schools. However, they concluded that the subsidy system was relatively progressive in the case of private school attendance as there was a clear tendency for the share of family education expenditure covered by subsidies to decline as one goes to higher quartiles.

Health

Demery et.al. (1995) found that subsidies to outpatient care received at public hospitals were split evenly between males and females, with little variation across the expenditure

distribution in Ghana. For inpatient care, however, there were substantial differences, with only 22 percent of the subsidies received by the poorest quintile going to females, but 50 to 60 percent in the other quintiles. For health centers and clinics, females received 53 percent of subsidies in the poorest quintile, but 67 percent in the top quintile. This pattern is the reverse of the one observed in Côte d'Ivoire, where women's share of health subsidies declined as welfare increases. In 1992, the overall pattern of subsidies was similar to that in 1989, although females' share of subsidies to health centers and clinics was fairly constant across the expenditure distribution, while their share in subsidies to hospital outpatient care showed a mildly negative relation to quintile level.

Demery, Dayton, and Mehra (1996) found that males and females received nearly the same subsidy from public health clinics in Côte d'Ivoire, while females received about 60 percent of the subsidy to public hospitals. With the exception of the top expenditure quintile, the gender differences were fairly consistent across the expenditure distribution. For public clinics, men got between 52 and 59 percent of the subsidy received by the first four quintiles, but this falls to 40 percent in the top quintile. For public hospitals, women got between 62 and 68 percent of the subsidy for the first four quintiles, but this drops to 53 percent for the richest. Thus, while there is not a strong correlation of incidence in the dimensions of gender and welfare, there is clearly something distinct about the richest quintile.

There is no analysis of health care visits in the DHS data comparable to Filmer's (1999) paper on education except an analysis by wealth and gender of under 5 mortality rate using the DHS data cited in World Bank, 2001. In two thirds of the countries examined there is a declining ratio of female to male under 5 mortality rates as household wealth rises. Unlike school enrollments, in the majority of countries showing this pattern, mortality rates are actually lower for girls than boys at all health levels. Therefore, in these cases being a female is an advantage that increases health status. These patterns in mortality should only be regarded as suggestive of what may occur with regard to gender, and the use of public health services for children under 5, since apart from merely caring for infants there are other determinants of mortality as well.

Glinskaya (2005) analyzed the distribution of Government of Bangladesh subsidies in education and health by using data from the 2000 Household Income and Expenditure Survey (HIES). Her analysis revealed that only two types of spending – outlays on primary education and allocations to child health within Essential Package of Services – are strongly pro-poor. While overall public subsidies to education and health were not pro-poor per se, they were more equitably distributed than private spending in these two sectors. Further, these subsidies reduce overall inequality in the income distribution, as they were found to be more equally distributed across the population as compared to overall private expenditures.

Akram and Khan (2007) explored the inequalities in resource distribution and service provision against government health expenditures. They concluded that the rural areas of Pakistan are at a greater disadvantage in the provision of health care facilities. The expenditures in health sectors are overall regressive[6] in rural Pakistan as well as at provincial and regional levels.

The above review of the literature indicates that only two studies have been conducted on benefit incidence of public subsidies in Pakistan: one for education sector and the other for health sector. While the study on health subsides is relatively recent (published in 2007), it is not gender disaggregated. On the other hand, the study on education subsidies is gender disaggregated, but it was conducted almost a decade ago. There is thus a need for gender sensitive benefit incidence analyses, which can provide an updated and comparative picture of distribution of subsidies in Pakistan.

Gender Disaggregated Benefit Incidence Analysis: Education

Education System in Pakistan

According to the Constitution of Pakistan, education was part of the Concurrent Legislative list. Thus, both the federal and provincial governments had a role in delivery of education services. However, with the promulgation of the 18th Constitutional Amendment in April 2010, the responsibility for educational services has been devolved to the provincial level. Now, the provincial governments are entrusted with the responsibility of planning and delivering education services to the people.

The structure of the education system, in Pakistan, has the following main characteristics. It begins with basic education called *Kachi Pehli* consisting of early childhood education (or pre-primary schooling), which is optional for children of age 3 to 5 years. This is followed by primary education spread over a period of 5 years, where the official age of entry is 5 years. The next is secondary level education spread over a period of 5 years and starts from the age of 10 years and ideally ends at the age of 14 years.

After secondary education comes the tertiary level where two options are available to students. They may choose either polytechnic institutes/colleges for technical education or general colleges/schools for higher secondary education also called intermediate level. After a successful completion of two-year intermediate program the level of education encompasses three lines of study: technological/engineering colleges and universities; medical colleges and universities; and general colleges and universities.

The budget documents of provincial and federal governments generally report four broad categories of education including: primary; secondary; general colleges and universities, and technical and professional institutes, colleges and universities. In this study, these categories of education are grouped into three categories for the analysis of incidence of public spending namely; primary, secondary and tertiary (included both general colleges and universities, and technical institutes, professional colleges and universities).

Gender Disparity in Education

There are several ways to measure gender differentials in education. Gross Enrollment Rate (GER) and net enrollment rate (NER) often reveal gender differences, especially when reported by income quintile. Similarly, completion and dropout rates are another way

to highlight gender disparities in education. However, GER is a widely used basic indicator, which highlights possible gender disparities at different stages of education indicating access to educational facilities for both males and females. Given this, the study uses GER to show gender disparity in the overall education system. It needs to be mentioned that these GERs incorporated enrollment both in public and private schools.

In order to present a comparative picture, the study highlights gender disparity by five income quintiles (from the richest 20 percent to the poorest 20 percent of the population), level of education and province.

Table 2.1 presents the GER at primary, secondary and tertiary levels by income quintiles and gender. In Punjab, it shows a typical bias in enrollment behavior, with males being more likely to be enrolled in schools, colleges and universities in 1998-99, 2004-05 and 2010-11 across all income groups. The bias becomes noticeable with higher levels of schooling during all three years. Since 1998-99, the gap between male and female enrollments gradually narrowed in 2004-05 and 2010-11. Moreover, gross enrollment rates progressively improved in 2010-11 as compared to 1998-99 at levels of education. While, GER declined in 2004-05 as compared to 1998-99 at secondary level in all income groups, it bounced back in 2010-11. It is interesting to note that female enrollment rate increased more than male enrollment both at primary and secondary level of education in 2010-11 compared to 2004-05. It is important to note that the gender gap is substantially narrowed at primary and secondary level at poor income group.

In Sindh, there are three clear messages emerge from the GERs pattern. Firstly, females' enrollment rates are less than males at level of education across almost all income categories during all three years i.e. 1998-99, 2004-05 and 2010-11, which highlights a typical bias in enrollment behavior in Sindh against females. Second, inter-temporal comparison shows that while enrollment rates increased with passage of time, the gender gap is persist at all level of education across all income groups. Finally, there is a positive relationship between income and enrollment, indicating higher enrollment rate at high income groups and the lowest enrollment rates at poor income groups.

The gender gaps in enrollment behavior reflected through sex disaggregated GERs are more pronounced in Khyber Pakhtunkhwa as compared to other provinces with males having greater chances for enrollment in schools, colleges and universities in all three years 1998-99, 2004-05 and 2010-11. The gap between male and female enrollments at primary and tertiary levels narrowed across all income groups in 2010-11 compared to 2004-05. In contrast, gap between male and female enrollments at primary level widened at almost all income groups in 2004-05 as compared to 1998-99. Although, GERs improved in 2010-11 as compared to 1998-99 at primary and tertiary level among both males and females, they marginally worsened at secondary level of education for males. Moreover, there is phenomenal increase in girls' enrollment rates at all level of education in poor income group in 2010-11 compared to both 2004-05 and 1998-99.

Gender gaps in GER at primary level have widened in 2010-11 as compared to both 2004-05 and 1998-99 in almost all income groups in Balochistan. For instance, at the

Table 2.1
Gross Enrollment Rate by Gender and Quintile

Income Level/	Primary		Secondary		Tertiary		Gender Gap		
Province	Males	Females	Males	Females	Males	Females	Primary	Secondary	Tertiary
Punjab									
2010-11									
Rich	102	95	106	92	32	26	7	14	6
Upper Middle	99	92	84	74	22	16	7	9	5
Middle	112	99	69	72	14	13	13	-3	0
Lower Middle	100	90	61	50	11	9	10	12	2
Poor	90	84	34	32	6	5	6	2	1
2004-05									
Rich	95	103	81	65	21	19	-8	16	2
Upper Middle	101	98	64	52	12	11	4	12	1
Middle	104	93	52	41	12	8	11	12	4
Lower Middle	94	88	41	31	6	6	6	10	-1
Poor	84	72	33	24	5	4	12	8	0
Sindh									
2010-11									
Rich	106	89	85	71	34	30	17	14	5
Upper Middle	116	85	64	55	20	16	31	9	4
Middle	99	74	66	46	19	9	25	19	9
Lower Middle	81	70	41	52	12	8	11	-11	5
Poor	79	63	35	24	9	6	16	11	3
2004-05									
Rich	99	73	68	43	27	23	25	25	5
Upper Middle	97	73	57	40	17	14	24	18	3
Middle	86	61	49	36	12	6	25	13	6
Lower Middle	77	58	37	32	10	4	19	5	6
Poor	69	49	37	20	11	6	20	18	6
Khyber Pakhtunkhwa									
2010-11									
Rich	97	81	106	59	38	23	17	47	16
Upper Middle	106	95	84	60	27	15	12	24	12
Middle	106	87	81	46	18	10	19	35	8
Lower Middle	99	83	54	35	14	7	17	20	7
Poor	103	79	51	27	10	5	24	24	5
2004-05									
Rich	102	69	79	37	25	10	33	43	15
Upper Middle	97	63	67	32	13	8	34	36	6
Middle	98	60	52	24	11	4	38	28	7
Lower Middle	88	53	45	25	9	2	34	20	7
Poor	80	47	45	8	10	2	33	37	8
Balochistan									
2010-11									
Rich	112	70	61	34	21	9	42	27	12
Upper Middle	89	66	61	27	12	5	23	34	6
Middle	102	63	49	19	7	1	39	30	6
Lower Middle	99	54	44	16	4	4	45	28	0
Poor	96	54	30	9	9	0	42	21	9
2004-05									
Rich	104	60	69	29	13	6	44	40	7
Upper Middle	82	47	44	18	10	4	35	25	6
Middle	87	51	36	14	6	3	36	22	4
Lower Middle	72	47	37	12	4	0	24	25	3
Poor	54	23	18	10	4	1	31	8	3

Source: Estimates based on PSLMS 2004-05 and 2010-11.

lowest income quintile (poor) GER for males was 53 percent in 1998-99 and that of female was 35 percent showing a gender gap of 18 percentage points. In 2010-11, this gap widened to an alarming 42 percentage points with male GER at around 96 percent and female 54 percent. This shows that males are more likely to be enrolled in both public and private primary educational institutions as compared to females. There is an increase in both male and female enrollment rates at primary, secondary and tertiary levels in 2010-11 as compared to 2004-05 almost across all income groups.

Role of Government in Education

In 1972 the Government of Pakistan (GoP) nationalized private schools and became the sole provider of education as a part of its campaign to provide free and universal basic education. However, very soon the GoP realized that without the help of the private sector the objective of universal basic education could not be achieved. Since this realization GoP has encouraged the private sector in all levels of education from primary to tertiary. The last decade has experienced the mushrooming of private institutions in Pakistan. Despite this mushrooming, public schools still play a significant role in the provision of education and the government is the major provider of primary, secondary and tertiary education. Chart 2.1 presents the relative share in enrollments at public institutes in 2004-05 and 2010-11. It emerges that although the share of public schooling declined (except

Chart 2.1
Share of Enrolled Students in Public Institutions
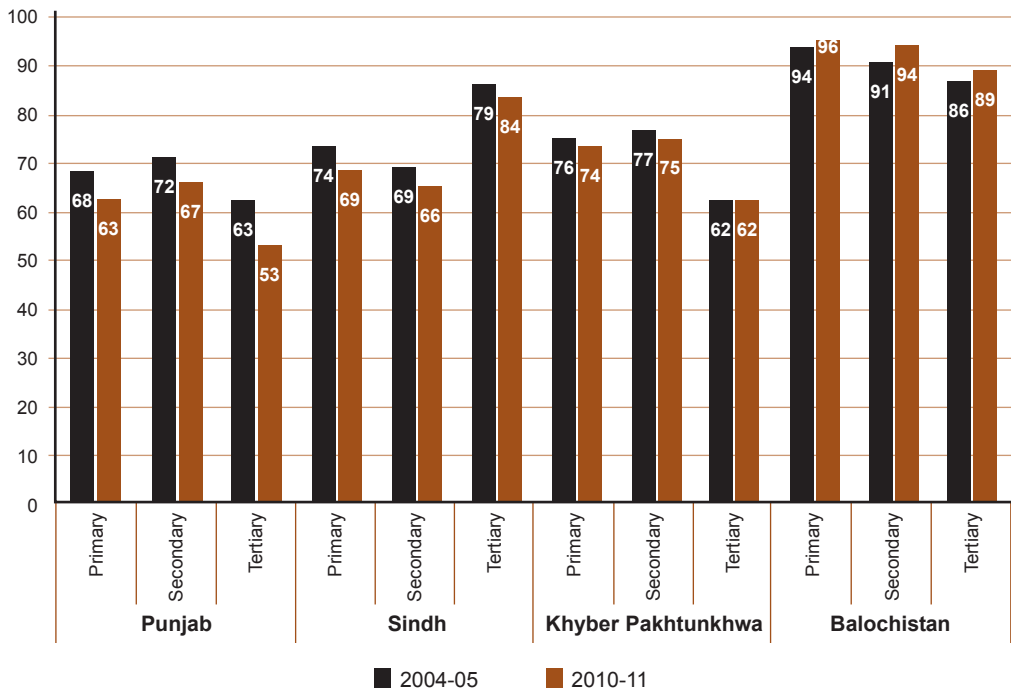
for Balochistan) it still covers more than 60 percent of primary education in Punjab, about 70 percent in Sindh, more than 70 percent and 90 percent in Khyber Pakhtunkhwa and Balochistan respectively. Moreover, public institution played a vital role in provision of secondary and tertiary education in all provinces.

Public Expenditure on Education

Education was part of the Concurrent Legislative list during 2004-05, which was devolved at provincial level during 2010-11. Consequently, both tiers of the government (federal and provincial) spend on education according to their role and responsibilities. These expenditures are reported in the budget document under: (i) recurrent expenditures; and (ii) development budget. Recurrent budget programmes at federal level include: university education, education in the Islamabad Capital Territory (ICT), national policy function, curriculum development, donor coordination, and monitoring and evaluation. Development budget includes: Education Sector Reforms (ESR) Programme, Non Formal Basic Education (NFBE) and Madrassa Reforms programmes, Cadet Colleges, the National Education Census and National Education Management Information Systems (NEMIS). While the recurrent budget of Higher Education Commission (HEC) is an integral part of the Ministry of Education (MoE) budgets, the development budget for the HEC is transferred directly from the Ministry of Finance to the HEC, and therefore is not under the remit of MoE.

The provincial governments are constitutionally the prime public providers of education. They manage public sector schools and colleges, employ teachers, supply educational materials, and carry out a wide range of ancillary education programmes (for example, school feeding Programmes like *Tawana Pakistan* Programme, in-service teacher training).

Unit Subsidies in Education

Table 2.2 presents province-wise public expenditure on education, number of student in public institutes and unit subsidies in education by level of education in 2004-05 and 2010-11. Although all levels of education show substantial increase in nominal expenditures in 2010-11 compared to 2004-05, growth in secondary education is higher than that in primary and tertiary education. This indicates that the government is focusing more on secondary education compared to primary and tertiary education. Consequently, trends in enrollment at public institutes show declined in primary enrollment and increase enrollment at secondary level in 2010-11 compared to 2004-05 in four provinces combined. The last two columns of the table present the gross unit subsidy – current cost to the government of a student studying in a particular level in a public institution. It is calculated as the total recurrent spending of (provincial and federal) governments on a specific level of public education divided by the total number of students of the same level in the province. It shows the amount of unit subsidy is highest at tertiary level and lowest and primary level in all provinces.

Table 2.2
Education Unit Subsidies in 2004-05 and 2010-11

	Public Expenditure (Rs. in Million)		Number of students (in Thousands)		Per Student Subsidies (Rs./Annum)	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Primary Education						
Punjab	24,070	58,802	6,846	5,907	3,516	9,955
Sindh	8,857	25,444	2,907	2,495	3,046	10,199
Khyber Pakhtunkhwa	6,121	6,220	1,818	1,885	3,367	3,300
Balochistan	1,793	5,842	648	972	2,769	6,012
Secondary Education						
Punjab	11,123	38,060	3,592	3,697	3,097	10,295
Sindh	6,856	18,737	1,339	1,179	5,120	15,896
Khyber Pakhtunkhwa	5,798	8,871	896	1,073	6,469	8,271
Balochistan	1,450	6,240	247	335	5,865	18,636
Tertiary Education						
Punjab	7,553	13,847	1,134	1,277	6,660	10,843
Sindh	4,979	10,333	777	854	6,405	12,098
Khyber Pakhtunkhwa	2,402	9,260	235	396	10,219	23,411
Balochistan	991	3,156	49	58	20,421	54,016

Source: SPDC estimates based on PRSP Annual Reports , Federal Demand for Grants,
    Provincial Demand for Grants and PSLMS

Table 2.2 also reveals regional disparities in unit subsidies in education that vary with the level of education. For instance, in 2010-11 the amount of unit subsidies for primary education was highest in Sindh, followed by Punjab and Balochistan while lowest in Khyber Pakhtunkhwa. As compared to 2004-05, unit subsidies increased substantially in all provinces at all levels of education barring at primary level in Khyber Pakhtunkhwa. It is interesting to note that despite the decline in number of students at primary and secondary levels in Sindh, there is a phenomenal increase in unit subsidies at both levels.

In order to avoid ghost student phenomena, the number of students for the estimation of subsidies was taken from HIES and PSLMS after multiplying by the blow-up factor. Moreover, due to non-availability of province-wise cost recovery on education services, these subsidies present gross unit subsidies and not net unit subsidies (gross unit subsidies minus per unit cost recovery), which is the proper measure of unit subsidies. As a result, these estimates may contain an upward bias and may overly state the amount of subsidies especially at tertiary level.

Benefit Incidence Analysis

By combining the unit cost of the public education system with use of public schooling facilities by members of the household, we can estimate the benefit incidence of government spending on education. The province-wise results of this exercise (based on

the subsidy schedule of Table 2.2) are reported in subsequent subsections. In line with the objectives of the study first the subsidy is distributed across the five income quintiles, from the richest 20 percent to the poorest 20 percent of the population. This disaggregation allows us to explore the extent by which an income quintile actually benefitted from public subsidies on education. It also highlights the impact of reforms on the pattern of obtaining subsidies by income groups.

Benefit Incidence Estimates

Table 2.3 presents the distribution of public subsidies on education across the five income quintiles by level of education. In 2010-11, the primary education subsidies to the poorest quintile in Punjab had a higher share (38.4 percent) than the subsidy to the richest quintile (6.2 percent) indicating public spending on primary education was pro poor. However, this trend is reverted in relative terms at tertiary level. While the richest one-fifth of the population received almost 35 percent of the subsidy at the tertiary level in 2010-11, the poorest 20 percent of the population received only 5 percent of the subsidy indicating public spending on tertiary education was not pro poor. The educational subsidy at secondary level did not have clear progressive or regressive pattern. However, the main beneficiaries of public spending on secondary education were lower middle, middle and upper middle-income groups, which indicate that the subsidy may be pro poor.

Estimate of benefit incidence for Sindh portrays a similar picture. Overall education subsidies were progressive in 2010-11 and regressive in 2004-05. This trend is consistent at all level of education except tertiary education. For instance at primary level in 2004-05, while the poorest 20 percent of the population of Sindh receives less than 14 percent of the subsidy, the richest 20 percent receives more than 20 percent of the subsidy. A similar pattern exists at secondary level with a slight change in magnitude ranging from 11.4 percent in the poorest income group and 25.7 percent in the richest income group. However, this pattern reverted in 2010-11; whereas, the main beneficiaries of public spending on primary and secondary education were poor income groups. However, at the tertiary level in all years the main beneficiaries were the richest income group who received almost 41.9 percent and 32 percent of the subsidy in 2004-05 and 2010-11, respectively. Therefore, the subsidy at the tertiary level of education is pro rich and the poorest income group receives the lowest share in the subsidy.

Estimates of benefit incidence for Khyber Pakhtunkhwa demonstrate a pattern where education spending is not pro poor at any level of education in 2004-05. However, the pattern of subsidy distribution changed at the primary level in 2010-11 as compared to 2004-05, where the main beneficiaries were the poor income group receiving almost 36 percent of the subsidy. In contrast, the rich income group received only 6 percent of the subsidy. A similar change also occurred in the pattern at the secondary level with a slight change in magnitude with 22 percent subsidy received by the poorest income group and more than 9 percent by the rich income group. However, the poorest section of the population received the lowest share in subsidies at the tertiary level in all years.

Table 2.3
Benefit Incidence of Public Spending on Education

Income Level/Year	Primary	Secondary	Tertiary	All
Punjab				
2010-11				
Rich	6.2	13.1	34.8	12.2
Upper Middle	12.8	18.2	26.2	16.4
Middle	17.8	23.6	21.3	20.2
Lower Middle	24.8	25.8	12.5	23.6
Poor	38.4	19.3	5.2	27.7
2004-05				
Rich	16.1	27.7	51.0	25.3
Upper Middle	20.6	24.7	19.9	21.5
Middle	24.9	22.7	17.0	22.9
Lower Middle	21.5	15.6	8.2	17.6
Poor	16.9	9.3	3.9	12.6
Sindh				
2010-11				
Rich	9.8	14.1	32.0	15.5
Upper Middle	13.4	14.3	21.6	15.3
Middle	15.7	21.4	22.5	18.9
Lower Middle	24.2	24.8	15.2	22.7
Poor	37.0	25.4	8.7	27.6
2004-05				
Rich	20.5	25.7	41.9	27.4
Upper Middle	21.8	23.5	29.1	24.1
Middle	23.4	20.9	14.0	20.3
Lower Middle	20.0	18.6	8.8	16.8
Poor	14.3	11.4	6.2	11.4
Khyber Pakhtunkhwa				
2010-11				
Rich	6.0	9.3	30.3	16.5
Upper Middle	12.6	21.6	26.5	21.2
Middle	20.3	25.9	19.6	22.1
Lower Middle	25.2	21.1	14.6	19.7
Poor	35.9	22.1	8.9	20.6
2004-05				
Rich	24.0	27.1	49.1	29.5
Upper Middle	21.6	27.6	25.2	24.6
Middle	22.5	20.4	13.1	20.0
Lower Middle	18.4	16.9	8.1	16.1
Poor	13.5	8.0	4.5	9.8
Balochistan				
2010-11				
Rich	12.0	16.1	53.1	22.2
Upper Middle	17.0	25.2	24.2	21.9
Middle	22.7	23.0	11.4	20.5
Lower Middle	21.4	20.6	5.0	17.7
Poor	26.9	15.1	6.3	17.8
2004-05				
Rich	24.4	37.3	58.9	36.9
Upper Middle	23.2	24.5	17.9	22.4
Middle	25.0	18.4	10.8	19.4
Lower Middle	16.9	14.3	6.1	13.5
Poor	10.4	5.4	6.3	7.7

Source: Ibid.

Similar to other provinces, estimates of benefit incidence demonstrate that education spending is not pro poor at any level of education in Balochistan in 2004-05. The poorest sections of the population received the lowest share in educational subsidies, particularly at the secondary level of education where the poorest income group receives only 5.4 percent of the subsidy in 2004-05. A similar pattern exists at the tertiary level where 6.3 percent of the subsidy went to the poorest income group and 58.9 percent to the richest income group. The pattern differs at the primary level, where the main beneficiaries were the lower middle income group receiving 25 percent of the subsidy and the richest group receiving 24.4 percent. Only 10.4 percent and 23.2 percent was received by the poorest income group and the upper-middle-income group respectively.

In contrast during 2010-11, the primary education subsidies to the poorest quintile had a highest share (26.9 percent) than the subsidy to the richest quintile (12 percent) indicating public spending on primary education was pro poor. However, this trend is reverted in relative terms at tertiary level. While the richest one-fifth of the population received more than half of the subsidy at the tertiary level in 2010-11, the poorest 20 percent of the population received only 6 percent of the subsidy indicating public spending on tertiary education was not pro poor. The educational subsidy at secondary level did not have clear progressive or regressive pattern. However, the main beneficiaries of public spending on secondary education were lower middle, middle and upper middle-income groups.

Poverty and Targeting of Public Expenditures on Education

Benefit incidence results can easily be portrayed in graphic form. Tracking the cumulative distribution of public spending on different levels of education against the cumulative population ranked by per capita income gives the concentration curve. This provides a point of comparison with which to judge the distribution of education spending. These graphics convey some important messages. First, compare the concentration curves with the equity line (45 degree diagonal). If the curve lies above the equity line, it means that the poor income groups receive a higher share of subsidies compared to their population, and consequently the rich income groups receive a lower share compared to their population share. Such a distribution is pro poor or progressive in absolute terms. Second, comparisons should be made with the Lorenz curve. Concentration curves lying above the Lorenz curve and below the equity line are progressive relative to income. Finally, concentration curves lying below the Lorenz distribution indicate regressive transfers. Concentration curves were constructed for all four provinces and for each level of education for 2004-05 and 2010-11 (Chart 2.2).

Punjab: In 2004-05, the concentration curve for public spending on primary education is intersecting the equity line while other concentration curves are below the equity line indicating that overall spending was regressive. All the concentration curves except for tertiary education are above the Lorenz curve indicating that public spending on education is progressive relative to income but not in absolute terms.

Chart 2.2
Concentration Curves for Government Spending on Education (%)
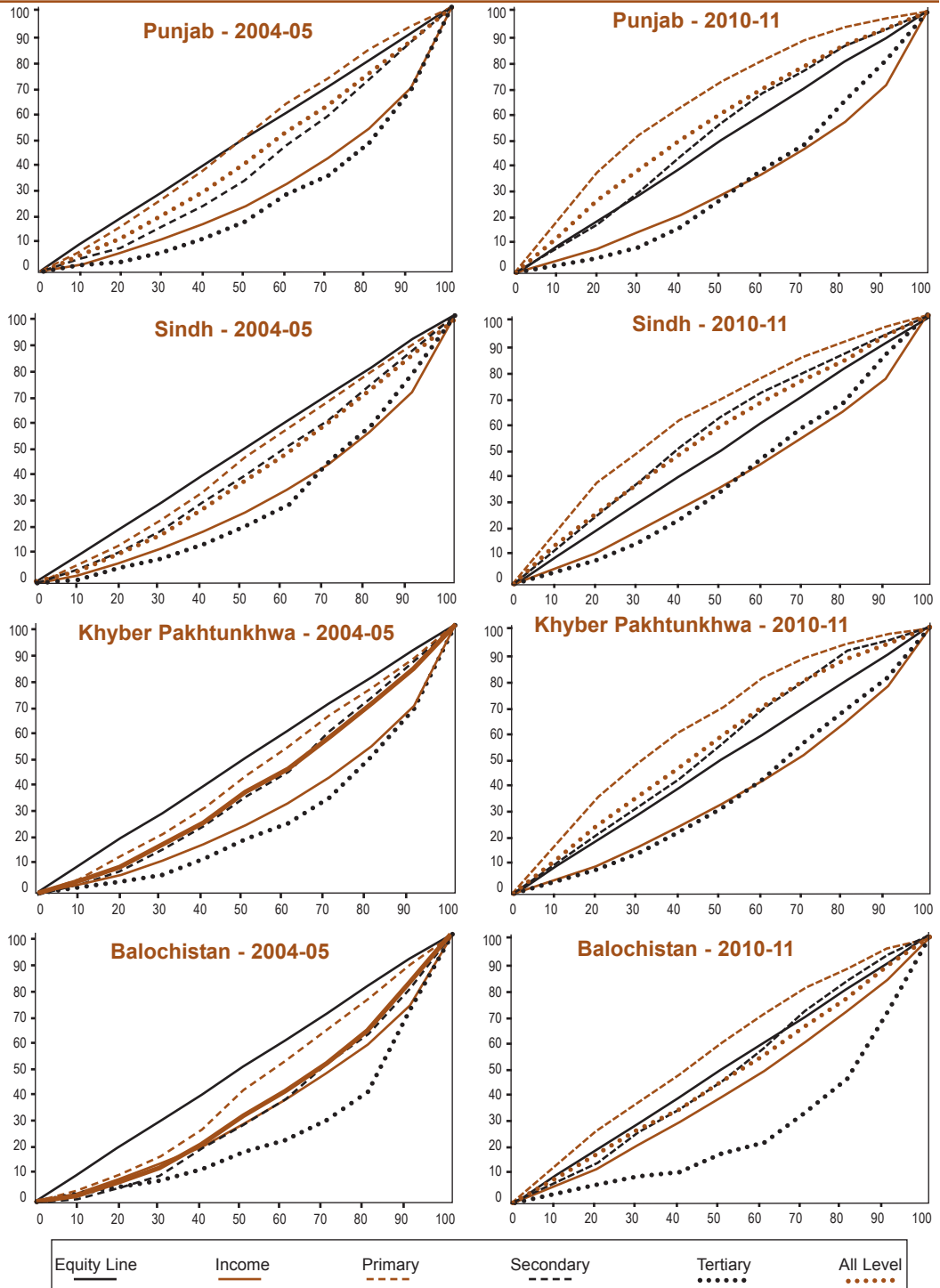
In 2010-11, the trend changed and public spending on primary education was progressive in absolute terms. While, concentration curve of public spending on secondary education was intersecting the equity line, it seems progressive. Public spending on tertiary education was regressive. The concentration curve for public spending on education is above the equity line indicating that overall education spending is progressive in absolute terms or pro poor in Punjab in 2010-11.

Sindh: In 2004-05, all concentration curves are below the equity line indicating that public spending on any level of education was not progressive in absolute terms. However, except concentration curve for public spending on tertiary education all curves are above the Lorenz curve, indicating public spending on education was progressive relative to income. Moreover public spending on tertiary education was regressive.

Public spending on primary and secondary education was progressive in absolute terms in 2010-11. The absolute progressivity of primary and secondary education also made total spending on education in Sindh progressive in absolute terms in 2010-11. However, public spending on tertiary education was regressive.

Khyber Pakhtunkhwa: In 2004-05, all concentration curves are below the equity line indicating that public spending on any level of education was not progressive in absolute terms. However, except for the concentration curve for public spending on tertiary education all curves are above the Lorenz curve indicating public spending on education was progressive relative to income. Moreover public spending on tertiary education was regressive.

In 2010-11, public spending on primary and secondary education was progressive in absolute terms, which also made total spending on education in Khyber Pakhtunkhwa progressive in absolute terms. However, public spending on tertiary education was regressive.

Balochistan: In 2004-05, all concentration curves are below the equity line indicating that public spending on any level of education was not progressive in absolute terms. However, except concentration curve for public spending on tertiary education all curves are above the Lorenz curve indicating public spending on education was progressive relative to income. Moreover public spending on tertiary education was regressive.

In 2010-11, public spending on primary education was progressive in absolute terms while public spending on secondary education was progressive relative to income. Concentration curve for public spending on tertiary education was below the Lorenz curve indicating that spending on tertiary education was regressive. Total spending on education in Balochistan is progressive relative to income in 2010-11.

Inequity in Public Spending on Education
The treatment of issues of equity in public spending on education so far was implicit and did not provide a complete answer of the question how equitable is public spending on

education? In response, concentration indices have been constructed. The concentration index is similar to the GINI index or GINI coefficient (a measure of inequality), is one minus twice the integral of area under the concentration curve. The concentration index may have negative, zero and positive values and bounded between -1 and 1. In this case negative values indicate that public spending on education is pro poor while positive values indicate the vice versa and finally zero indicates the equality (the equal distribution of the public spending among different income groups).

Table 2.4 presents the concentration indices for each level of education spending by province. These indices indicate that public spending on primary education was pro poor in all provinces in 2010-11 – the magnitude of indices varies from 0.15 (lowest) in Balochistan to 0.31 (highest) in Punjab. In contrast, public spending on tertiary education was not pro poor in any province and upper and rich income groups obtained more benefit compared to their population share. Public spending on secondary education was pro poor in all the provinces except Balochistan.

These indices indicate a different pattern in 2004-05, which shows that except for public spending on primary education in Punjab all education spending are not pro poor in any province at any level. In fact the higher positive values of index at tertiary level indicate that this spending is pro rich and regressive in nature. Based on the numbers in the last column of Table 2.4, it can be inferred that education spending was not pro poor in any province. The magnitude of indices varies from 0.12 (lowest) in Punjab indicating that public spending on education marginally tilted towards upper income groups and rich to 0.27 (highest) in Balochistan, indicating that public spending on education tilted highly towards upper income groups and rich.

The treatment of issues of equity in public spending on education so far was based on aggregates and did not provide answers to the question; why was public spending on education not pro poor?

Table 2.4
Province wise Concentration Indices[7]

	Primary	Secondary	Tertiary	All Level
2010-11				
Punjab	-0.314	-0.076	0.305	-0.143
Sindh	-0.267	-0.135	0.209	-0.109
Khyber Pakhtunkhwa	-0.292	-0.101	0.229	-0.127
Balochistan	-0.147	0.023	0.446	0.050
2004-05				
Punjab	-0.006	0.187	0.444	0.124
Sindh	0.057	0.143	0.371	0.161
Khyber Pakhtunkhwa	0.100	0.196	0.446	0.197
Balochistan	0.139	0.305	0.471	0.274

Source:Ibid.

Gender Disaggregated Benefit Incidence Estimates

The treatment of issues of equity in public spending on education so far was based on aggregates and did not provide answers to the question; why is public spending on education progressive or regressive? In order to answer these questions gender disaggregated benefit incidence analysis can be used. The subsequent subsections examine these questions by examining distribution of benefits between males and females in each province in 2004-05 and 2010-11.

Punjab: Statistics in Table 2.5 shows that gender disparity persists at all educational levels and in all income groups except some variations at the tertiary level. It clearly illustrates that public spending on education was biased against females. For instance in 2010-11, at the primary level 47.6 percent, and at the secondary level 43.8 percent share of the spending was spent on females and the rest on males. However, at tertiary level a relatively higher share of subsidies went to females as compared to other education levels. This pattern is a reflection of greater enrollment of women in public universities and men in private universities, as the private universities provide more market-oriented degrees with flexible working hours and less competition. These market oriented degrees in turn, provide better job opportunities. Finally, benefit incidence of public spending on education has increased for females in 2010-11 as compared to and 2004-05 at all level of education in Punjab.

Sindh: Table 2.6 shows that the relative disadvantage to females in terms of access to education follows a steady pattern in Sindh. This disadvantage is lowest at the primary level, where they received almost 40 percent on average of the total subsidy for primary education. This disadvantage gradually increases with the level of education and is greatest at the tertiary level, where they received 36.9 percent of the total subsidy at tertiary level education in 2010-11. This pattern confirms the hypothesis that relative disadvantage increases with the level of education. Finally, benefit incidence of public spending on overall education increased for females in 2010-11 as compared to 2004-05 in Sindh.

Khyber Pakhtunkhwa: Table 2.7 shows that the relative disadvantage to females is lowest at the primary level, where they received 44 percent of the total primary spending and highest at the tertiary level, where they received only 32.7 percent of the tertiary spending in 2010-11. An interesting fact is that the relative disadvantage of females is inversely correlated with the level of income. For instance, females in the poorest quintile of income receive less than one-third of the total primary education subsidy received by the poorest quintile. In contrast, females in the richest quintile of income received almost two-fifth of the total primary education subsidy received by the richest quintile. This disadvantage increases with the level of education.

Table 2.5
Benefit Incidence of Public Spending on Education - Punjab

Income Level	Primary 2004-05	Primary 2010-11	Secondary 2004-05	Secondary 2010-11	Tertiary 2004-05	Tertiary 2010-11
Male						
Rich	8.5	3.2	15.5	6.9	22.8	16.9
Upper Middle	10.5	6.4	13.6	10.3	10.2	13.9
Middle	14.2	9.4	13.9	12.9	9.3	10.5
Lower Middle	11.7	13.3	9.2	15.8	3.7	7.8
Poor	9.3	20.1	5.6	10.4	1.8	2.4
All Group	54.2	52.4	57.9	56.2	47.9	51.4
Female						
Rich	7.6	3.0	12.2	6.2	28.2	18.0
Upper Middle	10.1	6.4	11.0	8.0	9.6	12.3
Middle	10.6	8.4	8.8	10.7	7.7	10.9
Lower Middle	9.8	11.5	6.4	10.0	4.5	4.7
Poor	7.6	18.2	3.7	8.9	2.1	2.8
All Group	45.8	47.6	42.1	43.8	52.1	48.6
Difference						
Rich	0.9	0.2	3.3	0.7	-5.3	-1.1
Upper Middle	0.4	0.0	2.6	2.3	0.6	1.5
Middle	3.6	1.0	5.2	2.1	1.6	-0.4
Lower Middle	1.9	1.7	2.9	5.8	-0.7	3.1
Poor	1.7	1.9	1.8	1.5	-0.4	-0.4
All Group	8.4	4.8	15.8	12.4	-4.2	2.8

Source: Ibid

Table 2.6
Benefit Incidence of Public Spending on Education - Sindh

Income Level	Primary 2004-05	Primary 2010-11	Secondary 2004-05	Secondary 2010-11	Tertiary 2004-05	Tertiary 2010-11
Male						
Rich	12.6	5.0	18.0	9.6	27.4	19.1
Upper Middle	13.0	8.2	14.8	9.7	17.6	13.4
Middle	14.5	9.9	13.4	14.6	9.8	16.5
Lower Middle	11.8	14.5	10.3	13.3	6.3	9.5
Poor	8.9	21.7	8.1	15.6	3.5	4.5
All Group	60.8	59.1	64.5	62.6	64.5	63.1
Female						
Rich	7.9	4.9	7.7	4.5	14.5	12.9
Upper Middle	8.8	5.2	8.8	4.7	11.5	8.1
Middle	8.9	5.8	7.5	6.8	4.2	6.0
Lower Middle	8.2	9.7	8.3	11.5	2.5	5.7
Poor	5.3	15.3	3.2	9.8	2.7	4.2
All Group	39.2	40.9	35.5	37.4	35.5	36.9
Difference						
Rich	4.7	0.1	10.3	5.1	12.8	6.2
Upper Middle	4.2	2.9	6.0	5.0	6.1	5.3
Middle	5.5	4.1	5.9	7.7	5.6	10.5
Lower Middle	3.6	4.8	2.0	1.8	3.9	3.8
Poor	3.6	6.4	4.9	5.7	0.8	0.3
All Group	21.6	18.3	29.1	25.3	29.1	26.1

Source: Ibid

Table 2.7
Benefit Incidence of Public Spending on Education - Khyber Pakhtunkhwa

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	14.7	3.2	17.3	5.7	36.8	19.0
Upper Middle	13.2	6.5	20.0	11.3	16.2	18.9
Middle	14.5	11.0	14.9	17.1	9.5	13.6
Lower Middle	12.7	14.5	11.7	14.5	6.2	9.1
Poor	9.4	20.8	6.8	14.5	4.0	6.6
All Group	64.5	56.0	70.7	63.1	72.7	67.3
Female						
Rich	9.4	2.8	9.8	3.6	12.3	11.3
Upper Middle	8.4	6.1	7.6	10.3	9.0	7.6
Middle	8.0	9.3	5.4	8.8	3.6	5.9
Lower Middle	5.7	10.7	5.2	6.7	2.0	5.5
Poor	4.1	15.1	1.3	7.5	0.5	2.3
All Group	35.5	44.0	29.3	36.9	27.3	32.7
Difference						
Rich	5.3	0.3	7.5	2.1	24.5	7.8
Upper Middle	4.7	0.4	12.4	1.0	7.3	11.3
Middle	6.5	1.6	9.5	8.3	5.9	7.7
Lower Middle	7.1	3.8	6.6	7.8	4.2	3.6
Poor	5.3	5.7	5.5	7.0	3.5	4.2
All Group	28.9	11.9	41.4	26.3	45.4	34.5

Source: Ibid

Table 2.8
Benefit Incidence of Public Spending on Education - Balochistan

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	16.3	8.6	28.1	11.7	45.6	39.2
Upper Middle	16.2	11.3	18.3	19.2	14.2	19.8
Middle	16.9	13.8	14.8	17.8	7.2	10.4
Lower Middle	10.4	13.6	11.1	15.8	5.7	3.5
Poor	7.8	18.1	3.8	12.5	4.3	6.3
All Group	67.7	65.2	76.1	77.1	77.1	79.1
Female						
Rich	8.2	3.4	9.2	4.5	13.3	14.0
Upper Middle	7.0	5.7	6.2	6.0	3.7	4.4
Middle	8.1	9.0	3.7	5.1	3.6	1.0
Lower Middle	6.4	7.9	3.2	4.8	0.4	1.5
Poor	2.6	8.9	1.6	2.6	1.9	0.0
All Group	32.3	34.8	23.9	22.9	22.9	20.9
Difference						
Rich	8.1	5.1	18.8	7.2	32.3	25.2
Upper Middle	9.2	5.7	12.1	13.2	10.6	15.4
Middle	8.8	4.8	11.1	12.7	3.6	9.4
Lower Middle	4.0	5.7	7.9	11.1	5.3	2.0
Poor	5.2	9.2	2.2	9.9	2.4	6.3
All Group	35.3	30.4	52.2	54.1	54.1	58.2

Source: Ibid

Balochistan: In Balochistan gender disparity persists at all educational levels and in all income groups in both the years. It clearly emerges that the pattern of subsidy is biased against girls and women. For instance in 2010-11, 34.8 percent of subsidy at primary level, 22.9 percent of subsidy at the secondary level, and 20.9 percent of subsidy at tertiary level was spent on females and the rest on males. In 2004-05, the pattern of subsidy was regressive in nature at all education levels for both male and female, where the highest share of subsidy went to the richest quintile (see Table 2.8).

Gender Disaggregated Per Capita Subsidies

The per capita estimates of level-wise subsidy present a better picture of the benefit incidence and highlight which income group receives what amount of money under education subsidies. It is calculated as total spending of (provincial and federal) governments on a specific level of public education divided by the total number of persons in the official school age group. For instance, per capita subsidy for females at primary level is computed by dividing total subsidy on primary level received by females to the total number of female in 5-9 year age cohort. The subsequent subsections present gender disaggregated per capita subsidies in each income group for 2004-05 and 2010-11.

Punjab: Table 2.9 shows gender disparity persists at primary and secondary level of education across all income groups except the richest income group at primary level. It clearly emerges that the pattern of subsidy is biased against females at primary, secondary and tertiary levels of education in 2010-11. For instance, in 2010-11 per capita subsidy which went to females at primary level was Rs. 5,833, at secondary level Rs. 3,817, and at tertiary level Rs. 836 while that which went to males was Rs. 6,019, Rs. 4,442 and Rs. 915 respectively. In nominal terms, per capita subsidy on education has generally increased for both males and females in 2010-11 as compared to 1998-99 and 2004-05 at all level of education in Punjab.

Sindh: Table 2.10 shows that there are glairing differences in pattern of per capita subsidies obtained by female and male in all the years in Sindh. For example, in 2010-11 the per capita subsidy received by females at primary level was Rs. 5,008 while that received by males was Rs. 6,383 resulting a gender gap of Rs. 1375. The situation is almost similar in all income categories and at all educational levels during 2004-05 and 2010-11 as the per capita subsidy received by females are less than males.

Khyber Pakhtunkhwa: The relative disadvantage to females in terms of per capita subsidy was lowest at the primary level and increased gradually with the level of education and was greatest at the tertiary level in 2010-11 (see Table 2.11). Per capita subsidy on education which went to females increased across all income quintiles at all education levels in 2010-11 as compared to 20004-05. Moreover, the overall per capita subsidy on education is lowest in Khyber Pakhtunkhwa compared to those in other provinces.

Table 2.9
Per Capita Subsidies on Education - Punjab

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	1,852	3,460	1,670	5,295	817	1,654
Upper Middle	2,230	4,822	1,342	5,231	408	1,220
Middle	2,741	6,294	1,279	5,007	461	785
Lower Middle	2,467	6,455	1,066	5,119	256	668
Poor	2,231	6,942	888	2,784	179	250
All Group	2,318	6,019	1,278	4,442	490	915
Female						
Rich	1,990	3,368	1,291	4,741	972	1,718
Upper Middle	2,193	5,048	1,068	4,417	409	1,075
Middle	2,422	5,954	919	4,890	359	858
Lower Middle	2,233	6,193	708	3,464	258	388
Poor	2,016	6,703	587	2,712	182	242
All Group	2,180	5,833	943	3,817	506	836
Difference						
Rich	-138	92	379	555	-154	-63
Upper Middle	37	-226	274	814	-1	145
Middle	319	340	360	117	102	-73
Lower Middle	234	262	358	1,655	-2	280
Poor	215	240	302	72	-2	8
All Group	137	186	336	626	-15	80

Source: Ibid

Table 2.10
Per Capita Subsidies on Education - Sindh

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	2,137	5,479	2,345	7,509	1,336	3,397
Upper Middle	2,150	6,993	1,845	6,160	951	2,095
Middle	2,041	6,265	2,021	7,388	623	1,980
Lower Middle	1,876	6,064	1,584	5,302	516	1,270
Poor	1,704	6,710	1,641	4,882	494	767
All Group	1,989	6,383	1,913	5,962	872	1,869
Female						
Rich	1,398	4,793	1,145	4,286	1,044	2,913
Upper Middle	1,398	4,669	1,157	3,294	766	1,546
Middle	1,493	4,319	1,164	3,977	321	954
Lower Middle	1,386	5,068	1,411	5,695	224	772
Poor	1,060	5,514	859	3,351	275	676
All Group	1,356	5,008	1,168	4,085	563	1,251
Difference						
Rich	739	686	1,200	3,223	292	484
Upper Middle	752	2,324	687	2,866	185	549
Middle	548	1,945	857	3,411	302	1,026
Lower Middle	490	996	173	393-	291	498
Poor	643	1,196	782	1,531	219	92
All Group	633	1,375	745	1,877	310	618

Source: Ibid

Table 2.11
Per Capita Subsidies on Education - Khyber Pakhtunkhwa

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	2,054	1,131	2,990	3,413	1,678	5,056
Upper Middle	2,479	1,678	3,532	4,470	858	4,350
Middle	2,692	2,448	2,785	5,602	662	3,011
Lower Middle	2,613	2,623	2,631	3,743	550	2,037
Poor	2,325	3,126	2,638	3,842	612	1,583
All Group	2,410	2,397	2,967	4,234	997	3,164
Female						
Rich	1,541	1,270	1,730	2,600	581	3,141
Upper Middle	1,627	2,027	1,573	3,949	466	1,865
Middle	1,559	2,412	1,310	3,186	231	1,322
Lower Middle	1,436	2,261	1,320	2,230	155	1,259
Poor	1,340	2,411	463	2,023	47	465
All Group	1,520	2,192	1,374	2,739	348	1,516
Difference						
Rich	513	-138	1,261	813	1,096	1,916
Upper Middle	852	-349	1,960	521	392	2,485
Middle	1,133	36	1,474	2,416	431	1,689
Lower Middle	1,177	362	1,311	1,513	394	778
Poor	986	715	2,175	1,818	565	1,119
All Group	890	205	1,593	1,496	649	1,648

Source: Ibid

Balochistan: Gender disparity persists at all educational levels and in all income groups during 2004-05 and 2010-11. The relative disadvantage to females in terms of per capita subsidy was lowest at the primary level and increased gradually with the level of education and was greatest at the tertiary level in all the years (see Table 2.12). It clearly emerges that the pattern of subsidy is biased against females. For instance, in 2010-11, at the primary level per capita subsidy on education which went to females was Rs. 3,421 while that to males was Rs. 5,655 resulted a gender gap of Rs. 2,234. This gap further increased to Rs. 4,801 and Rs. 2,503 at secondary and tertiary levels respectively. Nominal per capita subsidies on education for both females and males increased across all income groups and at all education levels in 2010-11 as compared to both 1998-99 and 2004-05. Moreover, the overall per capita subsidy on education is the lowest in Balochistan compared to Sindh and Punjab.

Regional Gender Disparity

Gender disaggregated benefit incidence results can be used to provide a comparative picture of regional gender disparity. To grasp the comparative picture of regional gender disparity, female to male ratio of benefit incidence of public spending was computed by province and rural-urban location. The ratio may have values below 100 (women and girls are receiving less subsidies than boys and men), 100 (females and males are receiving equal subsidies), and above 100 (women and girls are receiving more subsidies than boys and men).

Table 2.12
Per Capita Subsidies on Education - Balochistan

Income Level	Primary		Secondary		Tertiary	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
Male						
Rich	2,485	5,955	3,447	9,313	2,171	8,718
Upper Middle	2,184	5,102	2,339	10,556	945	4,213
Middle	2,352	5,894	1,988	9,085	621	2,375
Lower Middle	1,894	5,791	2,001	7,862	554	853
Poor	1,460	5,630	1,001	5,452	680	2,115
All Group	2,112	5,655	2,322	8,248	1,198	3,835
Female						
Rich	1,367	3,761	1,508	5,556	960	4,550
Upper Middle	1,211	3,598	1,012	4,878	353	1,357
Middle	1,402	3,725	734	3,552	394	305
Lower Middle	1,272	3,171	677	2,984	58	451
Poor	624	3,172	580	1,634	275	0
All Group	1,208	3,421	967	3,447	479	1,333
Difference						
Rich	2,485	5,603	3,447	9,155	2,171	5,058
Upper Middle	973	2,497	1,327	7,227	591	3,678
Middle	950	2,054	1,254	4,354	227	749
Lower Middle	622	2,085	1,324	3,170	496	1,508
Poor	835	2,622	421	3,013	405	1,553
All Group	904	2,234	1,356	4,801	719	2,503

Source: Ibid

Rural Areas

The female to male ratio of benefit incidence of public spending on education by level of education in rural areas are presented in Chart 2.3. It is important to note that the ratio well below hundred in all provinces and at level of education in 2004-05 and 2010-11. It shows that females have relative disadvantage in rural areas of all provinces in all the years. The disadvantage is the greatest in rural Balochistan and Sindh.

Province-wise comparison reveals that the ratio has improved in all the provinces in 2010-11 compared to 2004-05 in both primary and secondary levels except for secondary level in Balochistan. In the case of tertiary education, improvement is observed in Sindh and Khyber Pakhtunkhwa while the gender disparity increased in Punjab and remained at the same level in Balochistan.

Urban Areas

Chart 2.4 shows estimates of female to male ratio of benefit incidence of public spending on education by level of education in urban areas. It is clear that gender disparity in benefit incidence is higher in rural areas than in urban areas. In urban areas of Punjab, share of public subsidies on education is higher or close to equal for female compare to male at all education levels in both years indicating that females are the main beneficiaries of education subsidies in urban Punjab.

Chart 2.3
Gender Disparity in Benefit Incidence in Rural Areas (%)
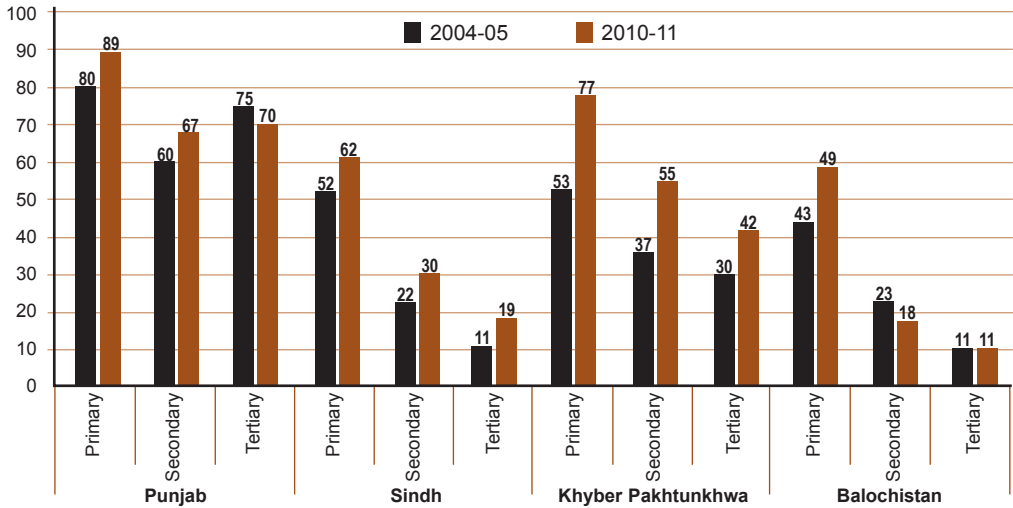
Chart 2.4
Gender Disparity in Benefit Incidence in Urban Areas (%)
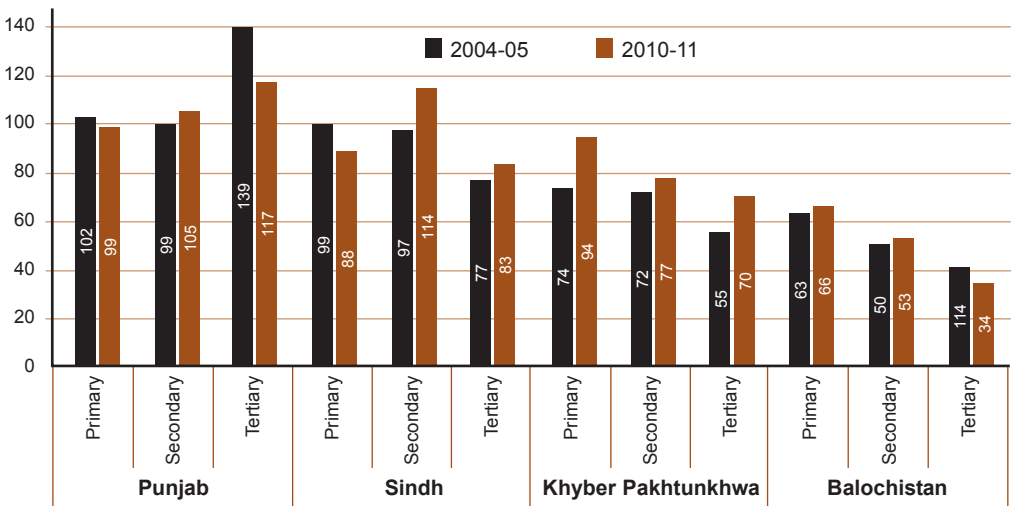
In urban areas of Sindh, the share of education subsidies for female enhanced at secondary and tertiary levels while it is declined at primary level. In Khyber Pakhtunkhwa share of education subsidies to female increased at all levels in 2010-11 compared to 204-05. In Balochistan, female to male ratio shows improvements at primary and secondary levels while it is worsened at tertiary level.

Gender Disaggregated Benefit Incidence Analysis: Health

Structure of Public Health System in Pakistan

As per the Constitution of Pakistan, health was part of the Concurrent Legislative list. Thus, both the federal and provincial governments had a role in delivery of health services. However, with the provision of the 18th Constitutional Amendment in April 2010 the responsibility for health services was devolved to the provincial level. Now, the provincial governments are entrusted with the responsibility of planning and delivering primary health services to the people.

Before the 18th Constitutional Amendment, the structure of the public health system had the following main characteristics. First, the federal government had the responsibility of designing a National Health Policy that provides the necessary parameters to maintain a uniform standard of health status in line with international standards. Second, there were a number of tertiary care facilities - like, Jinnah Postgraduate Medical Centre (JPMC) previously run by the federal health ministry under public sector "curative care". Third, there were several vertical programmes initiated for the prevention and control of communicable diseases like malaria, tuberculosis (TB), HIV/AIDS, hepatitis, six fatal diseases of children under the Expanded Programme of Immunization (EPI), diarrheal diseases and other gastro-intestinal diseases. The federal ministry through the national and provincial programme managers in coordination with district focal persons had been managing these programmes throughout the country. After the promulgation of the 18th Constitutional Amendment, most of the tertiary care facilities are transferred to provincial governments. Moreover, the role of federal government in implementation of vertical programmes limited only to their financing.

There is a vast network of health care facilities under the control of Provincial Health Departments. These include hospitals, dispensaries, Basic Health Units (BHUs) and Sub-health Centers, Mother and Child Health Centers, Rural Health Centers (RHCs) and TB Centers run by the provincial governments. To implement these programmes properly/effectively at district level to oversee the health care services at all levels, each district has established District Health Committees and Village Health Committees in their respective areas. It also involves integrating "curative and preventive services" and placing them under common management.

Need for Health Service

Before estimating benefit incidence, it is important to understand the need for health services in Pakistan. In general, the health needs differ between groups depending on biological differences, regional variations, environmental status, the income and class of groups. However, for the purpose of benefit analysis the calculations are based on the information available on the use of health services by households and individuals rather than their actual need. Therefore, the province-wise incidence of illness[8] is reported in subsequent subsections. These incidences of illness by income quintiles during 2004-05 and 2010-11 are computed from micro data set of PSLM Survey of corresponding years.

Table 2.13
Need for Health Service by Gender and Quintile

Quintile	Incidence of Illness - Male			Incidence of Illness - Female		
	2004-05	2010-11	Difference	2004-05	2010-11	Difference
Punjab						
Rich	4.8	5.7	0.9	5.4	6.9	1.5
Upper Middle	6.1	7.5	1.4	6.6	8.2	1.6
Middle	6.6	7.1	0.5	7.3	7.9	0.6
Lower Middle	6.3	6.7	0.4	7.4	8.4	1.0
Poor	7.5	8.4	0.9	7.7	8.4	0.7
Average	6.3	7.2	0.9	6.9	8.0	1.1
Sindh						
Rich	8.2	8.1	-0.1	8.3	11.2	2.9
Upper Middle	8.3	7.6	-0.7	9.5	10.6	1.1
Middle	8.9	8.8	-0.1	9.0	9.9	0.9
Lower Middle	9.6	9.4	-0.2	10.3	11.2	0.9
Poor	8.4	8.6	0.2	9.2	10.9	1.7
Average	8.7	8.5	-0.2	9.2	10.8	1.6
Khyber Pakhtunkhwa						
Rich	7.8	8.4	0.6	8.2	13.6	5.4
Upper Middle	7.6	8.3	0.7	10.4	10.1	-0.3
Middle	8.7	8.8	0.1	10.0	10.8	0.8
Lower Middle	7.7	8.1	0.4	11.8	10.9	-0.9
Poor	10.5	7.4	-3.1	11.6	10.0	-1.6
Average	8.5	8.4	-0.1	10.4	10.9	0.5
Balochistan						
Rich	6.2	6.7	0.5	8.8	11.9	3.1
Upper Middle	5.2	5.6	0.4	8.3	8.5	0.2
Middle	3.9	6.9	3.0	8.3	10.2	1.9
Lower Middle	5.3	5.5	0.2	8.3	10.2	1.9
Poor	6.1	4.6	-1.5	7.9	6.5	-1.4
Average	5.3	5.8	0.5	8.3	9.3	1.0

Source: SPDC estimate based on PSLMS 2004-05 & 2010-11

Table 2.13 presents the incidence of illness for all provinces. The key messages across the provinces are described below.

Punjab
● compared to 2004-05 the incidence of illness increased in 2010-11 in both male and female in all income groups;
● the incidence of illness varies with level of income and is the highest in poor income groups and the lowest in rich income groups in both males and females and during 2004-05 and 2010-11; and
● the incidence of illness is slightly higher among females in each income group as compared to males in both 2004-05 and 2010-11.

Sindh
- compared to 2004-05 the incidence of illness increased in 2010-11 among females in all income groups while the incidence of illness decreased in males in almost all income groups except poor;
- although the incidence of illness varies with level of income there is no clear pattern in incidence of illness with respect to income in both males and females during both 2004-05 and 2010-11; and
- the incidence of illness is slightly higher among females in each income group as compared to that among males during 2004-05, the gender gap in incidence of illness further increased in 2010-11.

Khyber Pakhtunkhwa
- compared to 2004-05 the incidence of illness increased in 2010-11 among females of rich and middle income groups and decreased in rest of the income groups, in males the incidence of illness decreased in almost all income groups except poor;
- although the incidence of illness varies with level of income there is no clear pattern in incidence of illness with respect to income in both males and females during both 2004-05 and 2010-11; and
- the incidence of illness is higher among females in each income group as compared to males during both 2004-05 and 2010-11.

Balochistan
- compared to 2004-05 the incidence of illness in 2010-11 increased in both males and females in almost all income groups except poor;
- although the incidence of illness varies with level of income there is no clear pattern in incidence of illness with respect to income in both males and females; and
- the incidence of illness is higher among females in each income group as compared to males, the gender gap in incidence of illness further increased in 2010-11 compared to 2004-05.

Health Facility Use Pattern
Another important useful indicator to review gender differentials is the pattern of public and private use of health services in case of illness. PSLMS 2004-05 and 2010-11 cover nine categories of health service providers, which are grouped here into three broad classifications (a) public, (b) private and (c) self-treatment/no-treatment. The public health service providers consist of government hospitals and dispensaries, BHU/RHC and LHV/LHW. The private health service providers are private hospital/ clinics/ dispensaries, doctors of eastern medicine (Hakim), and homeopaths. Finally, chemist, spiritual healers and others are grouped into the category of self-treatment/no-treatment.

Table 2.14 shows that in Punjab, a large proportion of population of those reporting illness visited a private practitioner. For instance, in 2004-05 more than 77 percent of

Table 2.14
Percentage Distribution of Health Service Utilization by Provider and Quintile

Quintile	Public Providers			Private Providers			Self-treatment/no treatment		
	Male	Female	Both	Male	Female	Both	Male	Femal	Both
Punjab - 2010-11									
Rich	0.8	1.1	1.9	5.0	6.0	10.9	0.4	0.4	0.8
Upper Middle	1.8	1.7	3.5	6.8	7.0	13.7	0.4	1.0	1.4
Middle	1.9	1.3	3.3	7.2	8.3	15.5	0.5	0.8	1.3
Lower Middle	2.1	2.3	4.4	6.8	9.1	15.9	0.6	0.7	1.3
Poor	2.5	2.4	5.0	8.8	9.4	18.2	1.5	1.5	3.0
All Groups	9.1	8.9	18.0	34.6	39.7	74.3	3.5	4.3	7.8
Punjab - 2004-05									
Rich	0.7	1.6	2.3	5.7	5.6	11.4	0.5	0.6	1.1
Upper Middle	1.9	2.1	4.0	7.5	8.1	15.6	0.6	0.4	1.0
Middle	1.8	1.5	3.3	8.0	9.3	17.3	0.3	0.6	0.9
Lower Middle	1.6	1.9	3.5	7.2	8.8	16.0	0.4	0.6	1.0
Poor	2.2	2.0	4.2	8.6	8.7	17.3	0.5	0.8	1.3
All Groups	8.2	9.1	17.3	37.0	40.5	77.5	2.3	3.0	5.3
Sindh - 2010-11									
Rich	0.8	1.1	1.9	5.7	6.6	12.3	0.4	0.8	1.3
Upper Middle	0.6	1.2	1.8	6.0	7.0	13.0	0.6	0.9	1.5
Middle	1.7	1.6	3.3	7.7	7.5	15.2	0.5	0.4	0.9
Lower Middle	2.1	2.3	4.5	8.4	9.4	17.8	0.6	0.7	1.3
Poor	2.2	3.3	5.5	8.5	9.7	18.1	0.6	1.0	1.6
All Groups	7.4	9.5	17.0	36.3	40.1	76.4	2.7	3.9	6.6
Sindh - 2004-05									
Rich	3.4	2.3	5.7	7.2	6.7	13.9	0.1	0.0	0.1
Upper Middle	2.9	2.9	5.7	8.1	8.4	16.5	0.0	0.3	0.3
Middle	2.3	2.0	4.3	8.1	7.3	15.4	0.2	0.2	0.3
Lower Middle	2.1	1.9	3.9	7.8	8.1	15.9	0.4	0.3	0.8
Poor	1.6	1.8	3.4	6.8	7.0	13.8	0.0	0.0	0.1
All Groups	12.2	10.8	23.0	37.9	37.5	75.4	0.7	0.8	1.5
Khyber Pakhtunkhwa - 2010-11									
Rich	1.6	2.7	4.3	4.9	7.8	12.8	0.3	0.6	1.0
Upper Middle	2.4	2.6	5.0	4.7	5.9	10.7	1.0	1.3	2.3
Middle	2.3	3.8	6.1	5.8	6.4	12.2	0.9	0.9	1.9
Lower Middle	3.1	4.0	7.1	4.5	7.2	11.8	1.7	1.5	3.2
Poor	2.9	4.4	7.4	4.1	5.8	9.9	1.9	2.6	4.5
All Groups	12.4	17.5	29.9	24.1	33.2	57.2	5.9	6.9	12.9
Khyber Pakhtunkhwa - 2004-05									
Rich	1.8	2.3	4.1	5.7	5.5	11.2	1.0	1.0	2.0
Upper Middle	2.6	3.1	5.7	4.1	6.5	10.6	1.5	1.7	3.1
Middle	2.6	3.5	6.0	6.3	5.6	11.9	1.2	1.8	3.0
Lower Middle	2.6	3.4	6.0	3.8	5.5	9.3	1.2	2.5	3.7
Poor	2.9	3.8	6.7	4.6	5.7	10.3	3.2	3.1	6.3
All Groups	12.5	16.1	28.6	24.5	28.8	53.3	8.0	10.1	18.1
Balochistan - 2010-11									
Rich	1.4	3.1	4.6	5.8	6.8	12.6	1.1	1.4	2.5
Upper Middle	2.6	3.2	5.8	4.6	6.1	10.7	0.6	0.4	1.0
Middle	3.2	5.8	9.0	6.0	7.0	13.0	1.0	1.0	2.0
Lower Middle	3.5	5.8	9.2	4.0	7.7	11.7	0.8	1.2	2.1
Poor	2.6	3.1	5.6	3.1	4.2	7.4	1.2	1.7	2.9
All Groups	13.3	20.9	34.2	23.6	31.8	55.4	4.7	5.7	10.4
Balochistan - 2004-05									
Rich	3.9	3.9	7.8	5.0	6.1	11.1	0.6	1.1	1.7
Upper Middle	3.1	5.1	8.2	6.3	6.7	13.0	0.0	0.0	0.0
Middle	3.6	5.3	8.9	3.5	6.7	10.2	0.4	0.0	0.4
Lower Middle	4.0	7.0	11.0	4.3	5.9	10.2	0.0	0.0	0.0
Poor	4.3	4.8	9.1	3.7	4.4	8.1	0.1	0.2	0.4
All Groups	18.9	26.0	44.9	22.9	29.7	52.6	1.1	1.3	2.5

Source: SPDC estimates based on PRSP Annual Reports , Federal Demand for Grants, Provincial Demand for Grants and PSLMS

those reporting illness visited a private practitioner, while only 17 percent availed public-sector health care services. This trend by and large persisted in both 2004-05 and 2010-11 in all quintiles irrespective of sex. However, in 2010-11 the proportion of self treatment/no treatment, increased to 7.8 from 5.3 percent in 2004-05, majority of them were females.

Similar to Punjab the individuals in Sindh, who seek medical care tended to mostly consult mostly private providers during both 2004-05 (75 percent) and 2010-11 (76 percent). However, the share of the population of those who reported illness and consulted public health service provider declined from 23 percent in 2004-05 to 17 percent in 2010-11. In contrast, the share of self treatment/no treatment increased to 6.6 compared form only 1.5 percent in 2004-05.

In Khyber Pakhtunkhwa, while the majority of individuals who seek medical care tended to consult private providers (more than 53 percent and 57 percent in 2004-05 and 2010-11 respectively), a significant proportion (almost 29 percent and 30 percent in 2004-05 and 2010-11 respectively) consulted with a public health provider.

In Balochistan, despite declining trend a significant proportion consulted with public health providers. This proportion decreased from almost 45 percent in 2004-05 to 34 percent in 2010-11, showing a decline of more than 10 percentage points. Out of this 10 percentage points, there is only 3 percentage points increase is consultion with private health providers while a large proportion (almost 8 percentage points) did not consulted with anyone.

These provincial inter-temporal analyses clearly spelled out three striking messages from the variation across the income quintiles and genders. Firstly, self-medication/ no medication were more common among the poorer income groups in Khyber Pakhtunkhwa. For instance 6.3 percent in 2004-05 and 4.5 percent in 2010-11 in the poorest quintile reported that illness was either self-medicated or did not need treatment. Secondly, self-medication /no-treatment were more common among women as opposed to men in all the four provinces and in almost all income classes. Finally, self-medication /no-treatment is increased in Punjab, Sindh and Balochistan and decreased in Khyber Pakhtunkhwa in 2010-11 compare to 2004-05.

Unit Subsidies in Health

From the perspective of public finance there are four broad categories of health services that are generally reported in the Poverty Reduction Strategy Paper (PRSP) budgetary expenditures. These include; general hospitals and clinics, mother and child health, other health facilities, and preventive measures and others. However, this report focuses only on one category for the analysis of incidence of public spending in health, namely general hospitals and clinics including Basic Health Units (BHUs) and Rural Health Centres (RHCs). The reason for this focus is that the PSLM survey does not effectively cover other categories reported in the budget documents. It needs to be mentiond that general hospital and clinics account for more than 80 percent of the total spending on public health care.

Table 2.15
Health Unit Subsidies in 2004-05 and 2010-11

	Government Expenditure (Rs. in Millions)		Number of Visits (in Thousands)		Per Visit Expenditure (Rs.)	
	2004-05	2010-11	2004-05	2010-11	2004-05	2010-11
			2010-11			
Punjab	11,406	32,856	1,762	2,009	6,474	16,352
Sindh	5,022	13,167	1,341	966	3,744	13,637
Khyber Pakhtunkhwa	2,412	6,032	655	740	3,684	8,154
Balochistan	1,013	4,415	288	223	3,516	19,823
Pakistan	19,853	56,470	4,046	3,937	4,907	14,342

Source: Author's estimates based on PRSP Annual Report 2005-06 & 2010-11, Federal Demand for Grants 2005-06, & PSLMS 2004-05 & 2010-11

Table 2.15 presents the result of province-wise estimates of unit subsidies in health. The second and third columns of the Table show province-wise actual public expenditures on general hospitals and clinics in 2004-05 and 2010-11. The fourth and fifth columns present the estimated number of visits by patients to general hospitals and clinics in each province based on PSLMS 2004-05 and 2010-11. Finally, the last two columns represent the gross unit subsidy – the current cost to the government of a patient's visit to general hospitals and clinics. It is calculated as total recurrent spending of (provincial and federal) governments on general hospitals and clinics divided by total number of visits by patients in the province.

The table is indicative of inter-temporal regional disparities existing in the unit subsidies in health. For instance, the amount of unit subsidies is highest in Punjab followed by Sindh and Khyber Pakhtunkhwa while the lowest is in Balochistan during 2004-05. In contrast, in 2010-11 the amount of unit subsidies is highest in Balochistan followed by Punjab and Sindh while the lowest is in Khyber Pakhtunkhwa.

The number of patient visits for the estimation of subsidies was taken from PSLMS data after multiplying it by the blow-up factor. This helped avoiding over reporting bias generally found in administrative data sets. Moreover, due to non-availability of province-wise cost recovery from general hospitals and clinics, estimates reported in the Table present gross unit subsidies and not net unit subsidies (gross subsidies minus cost recovery), which is the preferred measure of unit subsidies for benefit incidence analysis. As a result, these reported estimates of subsidies contain an upward bias and overly stated amount of public subsidies. There is little disaggregation by type of facility or type of consultation thus masking variations in the costs of consultation. The unit costs are obtained by using total number of visits by patients to public hospitals and dispensaries, without differentiating types of hospital care (such as tertiary and secondary hospitals) and the out-patient vs. in-patient distinction.

Table 2.16
Benefit Incidence of Public Spending on Health

	Punjab	Sindh	Khyber Pakhtunkhwa	Balochistan
Percentage Distribution				
2010-11				
Rich	9.9	9.8	13.6	11.7
Upper Middle	22.8	12.5	14.3	16.6
Middle	19.9	20.5	24.6	29.3
Lower Middle	22.9	25.9	25.0	26.9
Poor	24.6	31.3	22.6	15.5
All Groups	100.0	100.0	100.0	100.0
2004-05				
Rich	14.3	24.4	14.5	15.9
Upper Middle	24.2	22.6	17.6	18.3
Middle	16.6	21.3	24.8	20.7
Lower Middle	20.9	17.2	20.3	24.8
Poor	24.0	14.5	23.0	20.3
All Groups	100.0	100.0	100.0	100.0
Rupees per capita				
2010-11				
Rich	263.4	272.0	286.7	469.5
Upper Middle	555.1	308.6	252.7	579.1
Middle	431.6	437.6	414.9	913.2
Lower Middle	464.2	503.6	372.4	804.8
Poor	459.8	536.0	313.6	469.4
All Groups	439.9	428.7	331.0	657.6
2004-05				
Rich	118.6	168.3	99.5	143.8
Upper Middle	181.3	158.9	115.4	152.9
Middle	127.3	162.6	164.8	167.8
Lower Middle	162.3	142.7	142.8	214.2
Poor	187.1	123.5	147.5	193.0
All Groups	155.8	152.4	134.2	174.1

Source: SPDC estimates based on PRSP Annual Report 2005-06 & 2010-11, Federal Demand for Grants 2005-06, and PSLMS 2004-05 & 2010-11

Benefit Incidence of Public Spending on Health

Table 2.16 presents estimates of benefit incidence of health spending across the four provinces. They indicate how the subsidy was distributed across the quintiles. These shares indicate the progressivity or regressivity of the public expenditures.

In Punjab and Khyber Pakhtunkhwa, the shares accruing to the poorest quintiles are more than 20 percent in both 2004-05 and 2010-11, which indicates that the pattern of government spending in these provinces is relatively progressive and poor sections of society receive a larger than proportionate share of the public expenditure on health. Two possible reasons can be used to explain the progressivity in both Punjab and Khyber Pakhtunkhwa: (a) these provinces have experienced public-private partnership for the

provision of health services that ensure the availability of doctors and paramedical staff at the facility which ultimately resulted in higher utilization of these facilities by the poor; and (b) the poor households' behaviour in relation to health in these provinces increased due to awareness campaigns by the government and civil society.

In contrast, public spending on health in Sindh was regressive in 2004-05 – the rich segment of the population received greater share of the subsidies while poor segment of society received the lower share of the subsidy. This regressivity is largely an outcome of higher public spending on secondary and tertiary healthcare (very high allocation of public spending for hospital-based care, which the poor are less likely to have access) as compare to primary healthcare. Thus, while the poor tends to use BHUs/RHCs more than the rich, such facilities attract relatively fewer people because of unavailability of trained staff, lack of medicine and other appropriate facilities.

However, the regressive trend massively changed during six year period and public spending on health in Sindh is strictly progressive in 2010-11 – the poor segment of the population received greater share of the subsidies while rich segment of society received the lowest share of the subsidy. This change was largely an outcome of the government of Sindh's efforts to increase outreach of public health services to poor segment of the society through public private partnership. Through this partnership BHUs/RHCs were renovated and health services have been ensured. Consequently, poor segment of the society accruing higher share of the subsidy compared to rich.

In Balochistan, health subsidies were progressive in 2004-05, which turned to regressive in 2010-11. Two possible reasons can be used to explain this pattern: (a) compared to 2004-05 the poor law and order situation in 2010-11 negatively affected the security of public health providers which in turn reduces the availability of doctors at public health facilities and ultimately resulted in lower utilization of these facilities by the poor; and (b) the absence of local government, higher number of strikes and restricted mobility of poor people due to poor law and order condition also negatively affected the utilization of health services by poor.

Table 2.16 also presents estimates of the per capita public expenditure on general hospitals and clinics by gender and income quintiles across the four provinces. The per capita estimates of public health expenditure generally present a better picture of the incidence than the percentage distribution.

These estimates show that on average lowest per capita subsidies received by population of Khyber Pakhtunkhwa (Rs. 134 in 2004-05 and Rs. 331 in 2010-11) followed by Sindh (Rs. 152 in 2004-05 and Rs. 429 in 2010-11), Punjab (Rs. 156 in 2004-05 and Rs. 440 in 2010-11) and highest in Balochistan (Rs. 174 in 2004-05 and Rs. 658 in 2010-11).

The pattern of distribution of per capita subsidies is more or less consistent with the share of benefit incidence presented above. For instance, the highest per capita subsidies are accrued by the poorest 20 percent in Sindh in 2010-11, which is Rs. 536 per capita. Similarly per capita subsidies are highly progressive in Sindh and regressive in Balochistan in 2010-11.

Gender Disaggregated Benefit Incidence Estimates

The examination of benefits between males and females makes interesting reading. Table 2.17 presents province-wise two sets of estimates of benefit incidence of health spending. The first set presents benefit incidence shares that indicate how the subsidy was distributed by gender in each quintile. The second set of estimates shows the province-wise per capita public expenditure on general hospitals and clinics by gender and income quintiles. The last column of each set shows the difference (male – female). A positive sign in the last column indicates that males of that income group obtain more subsidies compared to females and a negative sign shows the vice versa.

Before looking at the distribution of public subsidies in health, it is important to mention that a distribution of 50 percent for males and 50 percent for females of public spending on health is not an equitable distribution because women's reproductive health care needs tend to be greater than those of men.

Punjab

As shown in Table 2.17 that on average females obtained more subsidies in health sector than males in 2004-05 and less in 2010-11. The benefit incidence share shows that on average females received 53 percent health subsidies in 2004-05 while males received 47 percent. However, this situation changed in 2010-11, where the share of subsidies accrued by females decrease to 48.5 percent and that of male went up to 51.5 percent. The quintile-wise gender pattern of subsidies in 2010-11 indicates that except rich income group, there is a clear bias against females in each income group.

The per capita estimates show that on average females received Rs. 165 and males received Rs. 147 in 2004-05, resulted in a net gain of Rs. 19 to women. While females gained more than males in 2004-05, this only applied to three quintiles (1, 2 and 4). In 2010-11, males received Rs. 25 more than females. Among females the lowest subsidy was received by the middle income group and the highest subsidy received by the upper middle income group during both 2004-05 and 2010-11 (see Table 2.17). Among males the lowest subsidy was received by the richest 20 percent during both 2010-11 and 2004-05 and the highest subsidy was received by the poorest 20 percent in 2004-05 and upper middle income group during 2010-11.

Sindh

A major source of the inequality in the benefit incidence of health spending in Sindh is clearly the gender dimension. Overall, females gained less of the health subsidy than males (46.5 percent of overall health spending) and obtained an in-kind transfer of Rs. 149 per capita compared with Rs. 155 for male in 2004-05. This situation substantially changed in 2010-11 due to health sector reforms including public private partnership in provision of health services in Sindh. For instance, on average females received 56 percent health subsidies in 2010-11 while males received only 44 percent. Moreover in all income groups, share of females in health subsidies is higher than males in 2010-11.

Table 2.17
Benefit Incidence of Public Spending on Health

Quintile	Share (%)			Per Capita (Rs.)		
	Male	**Female**	**Difference**	**Male**	**Female**	**Difference**
Punjab - 2010-11						
Rich	34.3	65.7	-31.4	180.5	346.4	-165.8
Upper Middle	51.8	48.2	3.7	571.0	539.0	32.1
Middle	56.0	44.0	12.1	476.3	385.5	90.8
Lower Middle	51.6	48.4	3.2	480.1	448.3	31.8
Poor	54.2	45.8	8.4	505.2	415.6	89.7
All Groups	51.5	48.5	3.0	452.3	427.4	24.9
Punjab - 2004-05						
Rich	23.0	77.0	-53.9	53.9	184.8	-130.8
Upper Middle	49.0	51.0	-2.1	175.1	187.7	-12.6
Middle	56.9	43.1	13.9	144.0	110.4	33.6
Lower Middle	43.4	56.6	-13.1	142.3	182.1	-39.8
Poor	56.4	43.6	12.7	212.2	162.2	50.0
All Groups	47.2	52.8	-5.6	146.6	165.2	-18.6
Sindh - 2010-11						
Rich	41.7	58.3	-16.6	214.3	336.9	-122.5
Upper Middle	36.9	63.1	-26.2	216.4	411.0	-194.6
Middle	47.9	52.1	-4.3	388.2	495.4	-107.1
Lower Middle	49.0	51.0	-2.1	477.2	531.8	-54.6
Poor	40.8	59.2	-18.3	430.9	644.4	-213.6
All Groups	44.0	56.0	-12.1	360.7	503.2	-142.5
Sindh - 2004-05						
Rich	58.5	41.5	16.9	184.1	150.2	33.9
Upper Middle	51.2	48.8	2.5	154.3	164.0	-9.7
Middle	47.7	52.3	-4.5	147.5	179.4	-31.9
Lower Middle	59.4	40.6	18.8	162.0	121.6	40.4
Poor	51.3	48.7	2.5	123.8	123.2	0.6
All Groups	53.7	46.3	7.3	155.7	148.8	7.0
Khyber Pakhtunkhwa - 2010-11						
Rich	33.1	66.9	-33.9	190.1	382.7	-192.6
Upper Middle	50.8	49.2	1.6	256.5	249.0	7.5
Middle	43.8	56.2	-12.4	362.3	467.8	-105.5
Lower Middle	42.2	57.8	-15.6	313.0	432.3	-119.3
Poor	37.1	62.9	-25.7	240.8	381.8	-141.0
All Groups	41.4	58.6	-17.1	276.1	385.1	-109.1
Khyber Pakhtunkhwa - 2004-05						
Rich	43.1	56.9	-13.8	84.8	114.5	-29.7
Upper Middle	44.8	55.2	-10.5	103.2	127.8	-24.6
Middle	46.8	53.2	-6.4	154.0	175.7	-21.8
Lower Middle	48.4	51.6	-3.2	137.6	148.1	-10.5
Poor	47.0	53.0	-6.0	142.6	152.0	-9.4
All Groups	46.3	53.7	-7.4	124.4	143.9	-19.4
Balochistan - 2010-11						
Rich	36.2	63.8	-27.6	297.8	698.0	-400.2
Upper Middle	44.6	55.4	-10.8	468.1	715.7	-247.6
Middle	36.4	63.6	-27.2	636.8	1215.3	-578.4
Lower Middle	39.8	60.2	-20.3	623.2	997.1	-373.8
Poor	46.8	53.2	-6.5	420.5	522.8	-102.3
All Groups	40.3	59.7	-19.5	495.9	842.9	-347.0
Balochistan - 2004-05						
Rich	47.3	52.7	-5.5	121.9	171.5	-49.6
Upper Middle	36.3	63.7	-27.4	100.6	217.4	-116.8
Middle	36.5	63.5	-27.1	109.7	241.0	-131.3
Lower Middle	35.3	64.7	-29.3	142.8	294.8	-152.0
Poor	48.5	51.5	-3.1	177.6	210.0	-32.4
All Groups	40.3	59.7	-19.4	128.7	228.5	-99.8

Source: SPDC estimates based on PRSP Annual Report 2005-06 & 2010-11, Federal Demand for Grants 2005-06, and PSLMS 2004-05 & 2010-11

As per estimates of per capita subsidies, on average females received Rs. 503 and males received Rs. 361: a net gain of almost Rs. 143 to females in 2010-11. Distribution of subsidies by income groups show that among females the lowest subsidy is received by the lower middle income group (Rs. 122 per annum) in 2004-05 and rich income group (Rs. 337 per annum) in 2010-11. Among males the lowest subsidy is received by the poorest 20 percent (Rs. 124 per annum) in 2004-05 and the richest 20 percent (Rs. 214 per annum) in 2010-11(see Table 2.17).

Khyber Pakhtunkhwa

Table 2.17 shows that on average females obtained more health sector subsidies than males in Khyber Pakhtunkhwa during both 2004-05 and 2010-11. The benefit incidence share shows that on average females received 54 percent health subsidies while males received 46 percent in 2004-05. In 2010-11, the share of health subsidy accrued by females further increased to almost 59 percent while males share declined to 41 percent.

The per capita estimates show that on average females received Rs. 144 per annum and males received Rs. 124 per annum which translated into a net gain of more than Rs. 19 per annum to females in 2004-05. In 2010-11, the net gain in health subsidies to females further increased Rs. 109. This trend is consistent in almost all income groups and females of higher income groups received higher net subsidies compared to the rest of the income categories in both 2004-05 and 2010-11.

Distribution of subsidies by income groups show that among females the lowest subsidy is received by the rich income group in 2004-05 and upper middle income group in 2010-11 and the highest subsidy received by the middle income group in both 2004-05 and 2010-11. Among males the lowest subsidy is received by the richest 20 percent and the highest subsidy received by the middle 20 percent in both 2004-05 and 2010-11.

Balochistan

In Balochistan, on average females obtained more health sector subsidies than males in both 2004-05 and 2010-11. The benefit incidence share shows that on average females received 60 percent health subsidies while males received 40 percent in both years. The per capita estimates show that on average females received Rs. 229 and Rs. 843 per annum in 2004-05 and 2010-11 respectively while male received Rs. 129 and Rs. 496 per annum in 2004-05 and 2010-11 respectively which translated into a net gain of more than Rs. 100 and 347 per annum to female in 2004-05 and 2010-11 respectively. This trend is consistent in all income groups and females of middle income groups received higher net subsidies compared to the rest of the income categories.

Distribution of subsidies by income groups show that among females the lowest subsidy is received by the rich income group in 2004-05 and poor income group in 2010-11. Among males the lowest subsidy is received by the upper middle income group in 2004-05 and the richest 20 percent in 2010-11.

Key Findings and Policy Implications

Gender disaggregated benefit incidence analysis of education and health services revealed strong gender disparities in access to education and health services in Pakistan. While national averages are limited and mask complex realities, gender disaggregated analysis along with differences in household income, regions and provinces provide greater insights.

The analysis of public spending on education can be used to explore why the poorest income quintile has less access to public education especially at the higher level of education. The answer is partly located, in the greater gender enrollment bias among the poorest sections of society. Moreover, the magnitude of gender disparity in access to education services varies with regions and province.

It is evident that GERs of both males and females for all education categories increase with the increase in level of income. Overall, low GERs prevail in poor income groups compared to rich income groups at all levels of education in all provinces. Wide gender disparity exists in GER across income groups, which is more pronounced at primary and secondary levels. Variations in the enrollment rates and gender gap also exist among the provinces.

The estimates for 2010-11 show that the share of education subsidy in primary education systematically declines at higher income groups, implying that the poor and lower middle groups receive much of the benefit. On the other hand, at tertiary education level the higher income groups receive the highest benefit of public spending.

Analysis of concentration curves reveals provincial differences in the nature of public expenditure on education. However, in all the provinces, expenditure on primary education in 2010-11 was progressive in absolute terms and was regressive in the case of tertiary education. Public spending on secondary education showed a mixed pattern indicating that it was pro poor in Sindh, Khyber Pakhtunkhwa and Punjab and not pro poor in Balochistan during 2010-11. Overall, public spending on education improved (in terms of being pro poor) in 2010-11 as compared to 2004-05. Moreover, gender disaggregated benefit incidence analysis shows that public spending on education was biased against females in all provinces at all levels in 2010-11.

The gender disaggregated analysis for health services reveals that the incidence of illness is lowest in Punjab and highest in Khyber Pakhtunkhwa and Sindh. Further, the incidence of illness was higher among females as compared to males in all provinces in 2010-11. Public health sector provides health services to hardly one-quarter of ill population in Sindh and Punjab while Balochistan had the highest share of beneficiaries availing public health services. Private sector is the largest health services provider in all provinces.

The pattern of government expenditure on health is relatively progressive and poor sections of the society receive a larger than proportionate share of the public spending. Gender disaggregated benefit incidence shows that in all the provinces except Punjab the

share of females in health subsidies was higher than males in 2010-11 in almost all the income groups. In Punjab, the quintile-wise gender pattern of subsidies in 2010-11 indicates a clear bias against females in each income group except the rich.

Policy Implications

The insights provided by gender disaggregated benefit incidence analysis of education and health services can be used to formulate gender sensitive and region specific policies. In the light of the analysis presented in this chapter, the policy implications for advancement in gender equality in education and health are stated below.

Education

Poverty mapping and improved targeting: The analysis revels that public spending on education is still poorly targeted in some provinces and the poorest section of society receives the lowest per capita subsidy. Public policies related to public spending on education therefore needs to be targeted towards the regions with higher levels of poverty.

Reducing rural urban disparities: In the presence of higher gender inequality in rural areas, region-specific education policies may be useful for gender equality. Moreover public spending in rural areas on female education will help not only reducing gender disparities but also expedite women is empowerment.

Reducing provincial disparities: While there is noticeable advancement in gender equality in education in rural areas of Punjab, the rural areas of other provinces show less momentum in reducing gender gaps. In order to improve the pace, the lessons from provinces which showed dynamism in reducing gender gaps in education needs to be learnt and pass on to other provinces.

Province-wise policies: Provincial policies related to gender equality in education at various levels are likely to be more effective than national policies. For instance, in Balochistan, a considerable proportion of the government budget is allocated to education services such as — tertiary education institutions which women tend to avoid. A shift of spending towards primary and secondary schooling would lead to an improvement in the share of the total budget going to females (as well as to poorer groups in the community). In contrast, such a policy is not useful for the other regions particularly in Punjab where female enrollments are higher at tertiary public institutions. Therefore, a shift of spending towards tertiary level would lead to an improvement in the share of the total budget allocated for females. However, such decisions should not only rely on benefit incidence estimates alone, they should also be based on a sound understanding of how household and individual behavior would be affected by such changes in expenditure.

Gender sensitive policies and budgeting: Given the overall lower status of females in the society, girls and women are discriminated against from birth. They are denied their civil

rights in matters of education, employment, marriage, divorce and inheritance. In this situation, a gender-neutral budget will fail to address these demand-side issues and would perpetuate gender disparities. Therefore, gender sensitive policy formulation and budgeting at lower tiers of the government would reduce gender disparity in education.

Increase in education budget: Additional efforts and resources are required to break through the cultural barriers and demand-side restrictions on girls' education.

Health

The present meagre usage of public health services indicates that the health sector is a neglected sector, which requires reallocation of resources from other sectors to the health sector. Further, the income-wise benefit incidence indicates that health subsidies are not progressive in all provinces. Therefore, it is important to reformulate a province-wise health strategy that target and benefit the disadvantaged groups more and improves the low income people's access to medical services.

Although in most of the provinces females are the main beneficiary of public spending of health, there is need to put further effort to increase their access to health facilities to reduce their share from no treatment in case of illness.

At, present, the private sector is playing a substantial role in the health care service delivery in Pakistan. Moreover, the successes achieved in Sindh are largely an outcome of public private partnership. Therefore, public private partnership can be used to increase access and utilization of health services in other provinces. In this regard, government can help insurance companies to provide subsidized health insurance to poor and marginalized groups.

NOTES:

1. A "positive externality" is a benefit transferred to an individual who did not take part in the process. For instance, a properly immunized healthy person has a positive effect on other individuals and does not spread illness to others. Similarly, education creates a positive externality because more educated people are less likely to engage in violent crimes, which makes everyone in the community, even people who are less educated, more secure.

2. Elson (1997), "Integrating Gender Issues into Public Expenditure: Six Tools".

3. See Demery, Lionel (1996).

4. Simel Esim "Gender Equity Concerns in Public Expenditure: Methodologies and Country Summaries," (http://www.icrw.org)

5. See also Patricia Alexander with Sally Baden (2000), "Glossary on macroeconomics from a gender perspective," (http://www.jdhr.org/publications/reports/Glossary%20on%20macroeconomic-gender%20perspective.pdf)

6. Rich income groups received greater subsidies compared to poorer income groups.

7. Geometry was used to estimate the area under each concentration curve. This was due to the fact that the concentration curves presented in the previous section are grouped in deciles. The method takes straight lines between the ten observed points on the concentration curve, and calculates the resulting area. This seems to be the simplest approximation to the area under the concentration curve, given that we have only ten points for that curve. Obtaining the concentration index is similar to the Gini – it is the area bounded by the diagonal and the curve expressed as a share of the area under the diagonal, except that since the concentration index can cross the diagonal, areas above the diagonal count as 'negative areas'. For this reason, where the concentration curve crosses the diagonal – i.e. when benefits are distributed towards the middle quintiles – the concentration index obtained may be around zero (which is the value for equality). This method assumes that there is no variation in benefits within each group.

8. These needs are based on response to the question whether any person was ill or injured over the last two weeks before survey·

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3 | Gender Dimensions of Trade Liberalization and Employment

Trade liberalization is widely viewed as an essential component of economic growth for countries at different stages of development. It involves a growing flow of goods and resources across national borders. Trade expansion typically creates or expands some activities and destroys or diminishes other activities. Benefits from trade crucially depend on whether an individual is working in the expanding sector or can shift from the diminishing sector to the expanding sector. It is argued that the impact of liberalization may vary at different levels of the economy and may differ for women and men. For example, in some developing countries trade liberalization has benefited women by increasing their access to formal sector employment, such as in export processing zones. At the same time, in other developing countries women have paid the price of adjustment in their roles in household management and traditional agriculture, which have been negatively affected. Gender analysis, therefore, is important in order to understand whether the benefits of trade expansion are different for women and men.

Trade liberalization reduces limitations on trade that limit competition of domestic producers with foreign producers. These limitations can be imposed through tariffs - which raise the price of goods coming into a country (imports), quotas - a physical limit on the number of goods that can be brought into a country, and other non-tariff barriers such as regulations and legislation that makes it difficult for foreign competitors to sell goods to another country.

Thus, liberalization policies generally work through reduction and/or removal of trade barriers. The objective behind trade liberalization is to get (relative) prices right in the tradeable sector, with a view to improve efficiency in the allocation of resources and to generate rapid economic growth fuelled by export growth. According to Krueger (1998), "any policy, which reduces the anti export bias will lead towards liberalization of trade and reduction in import license premium is the fundamental step towards liberalized trade regime". Edwards (1993), expresses that a regime in which all trade distortions including import tariffs and export subsidies are completely eliminated is a liberal trade. The profitability of liberalization can only be confirmed if its positive effects proliferate the economy. In this regard, an argument in favour of trade liberalization is that the process leads to higher growth both at the national and international level.

Trade and Employment: Theoretical Foundation

Liberalization by its nature implies adjustment and hence it is likely to have several distributional impacts which transmit themselves through different channels. An important distributional implication of trade liberalization takes place through its effects on the level and composition of employment, which is the focus of this research report.

According to the neo-classical theoretical rationale, trade liberalization increases openness to trade that eventually benefits economic growth and efficiency. It promotes specialization in conformity with a country's comparative advantage, economies of scale due to the widening of markets, better utilization of productive capacities, improved management methods and greater enthusiasm for innovation and technical progress in response to foreign competition. It fosters exchange of knowledge that is embodied in traded goods and services, spread of technology, efficient allocation of resources and increase in the productivity of human and physical capital. As a consequence of expansion in exports on a competitive basis and improvement in (consumer and producer) welfare as the price of imports decreases (goods that countries consume but do not have a comparative advantage in producing them), domestic production expands and income and employment opportunities in the economy increase. If reform increases the demand for labour-intensive products, the demand for labour also increases, which causes an increase in wages or employment or both. However trade liberalization, if accompanied by skill-biased technical change, may benefit skilled labour relative to unskilled labour.

The Hechscher-Ohlin trade theory suggests that in countries that are relatively abundant in unskilled labour, trade liberalization benefits unskilled labour. Krueger (1998) has argued that in a developing country trade liberalization should boost labour-intensive output and increase employment. Case studies identified by her indicate that developing countries' manufactured exports were, indeed, labour-intensive, but that the employment effects of liberal trade policies were generally rather mild. She tentatively concluded that this was because of other distortions in factor markets[1] [2].

The structure of the labour market is critical in determining the way trade liberalization translates itself into wage and employment changes. Traditional international trade theory states that if labour supplies are fixed and wages are flexible, labour market adjusts through changes in wages. Alternatively, if labour supply is perfectly elastic and wages are fixed then the adjustment takes place in terms of employment. The effects of trade liberalization also depends on the segmentation of labour markets into formal sectors — where, there is excess supply of labour and wages are relatively at a conventional rate — and the informal or subsistence sector that pays wages below the conventional rate. Thus, the effects of trade liberalization depend on the magnitude of labour demand and the elasticity of labour supply. Also, the effects of trade reform on labour markets passes through the adjustment of output, which, in turn, depends on the structure of goods markets and on the extent of substitution between imports, exports and locally produced varieties (Winters et al. 2004).

Trade liberalization policies are often associated with change in production patterns and processes. In some sectors it shifts labour intensive processes towards capital intensive and vice versa in other sectors. Since trade liberalization allows imports at competitive prices, it facilitates transfer of technology and promotes technological transformation in the methods of production, i.e., a shift from labour intensive to capital intensive method of production. The new technologies allow the various production stages to become one

continuous process of interrelated activities where industries advance to higher value added segments, and become more skill-intensive over time. This results in better quality output at competitive prices which brings a faster response to changing market conditions. However, full exploitation of these technological improvements is dependent on further complementary changes in organization and management. While trade liberalization opens new job opportunities for men and women, there are concerns that technological advancement might hurt employment opportunities in labour-abundant countries where women might be at a disadvantage. Joekes (1999) argues that the disproportionate gains to women are reversed as industrial development reaches a higher technology level since the proportion of women employed declines as the technology level rises.

According to SPDC (2006), the net effect on employment is ambiguous for two main reasons. First, some sectors expand and others contract as a result of trade liberalization. Second, while increase in productivity leads to an increase in the aggregate demand for labour, overall employment could fall, if there is also a substitution of capital for labour involved in the process of liberalization. Thus, the net effect on employment of trade liberalization is theoretically ambiguous and becomes an empirical issue. Additionally, even if the higher growth from liberalization is accompanied by higher employment on aggregate, the poverty consequences of these employment changes are not clear-cut. These would still seem to depend on whether the unskilled workers (which would include the poorer workers) are employed in the expanding or contracting sectors.

Linkages between Trade Liberalization and Female Employment

Benería and Lind (1991) state that employment effects result from the impact of trade liberalization on economic activity. They depend specifically on where women are located in the process of production. If located in industries or sectors with a comparative advantage in international trade, the effects for women are likely to be positive, as opposed to employment in industries losing ground to foreign competition. Employment effects will also depend on the extent to which trade liberalization has an impact on relocation of production.

Wood (1994) illustrated that in developing countries comparative advantage often lies in unskilled labour and hence foreign trade exposure is likely to favour an expansion of labour-intensive activities and benefit unskilled labour. The literature produced also indicate that trade liberalization policies in developing countries which are rich in unskilled labour would possibly shift investment and employment towards labour-intensive exportable sectors, while employment in import-competing industries would decline. The most labour-intensive industries are clothing, toys, consumer electronics and also some of the metal product industries. Trade theory also implies that with the opening of trade, labour-abundant countries will experience job creation and over time a rise in the relative wage of unskilled labour will occur[3]. Since women employment in developing countries is generally concentrated in labour-intensive industries, job creation in these industries benefit women.

When the supply capacity of a country is weak, trade liberalization can bring losses rather than gains. For example, if a country is not capable of competing internationally (due to high production costs) its exports will decline (i.e. become uncompetitive because of high prices) and imports will increase (due to competition from cheaper imports). This results in a reduction in domestic output and an unsustainable balance of payments, and capital flight (because there are no viable opportunities for domestic investment). This causes a reduction in employment opportunities particularly for unskilled workers (i.e. production workers). In such a situation, the most vulnerable are unskilled female workers, who suffer the most since they require more time to find a new job because they are unskilled and work in specific sectors.

Fontana (1998) has argued that the effects of trade liberalization for women, both in absolute term and relative to men, are found to have both positive and negative effects. They depend on a range of factors including gendered patterns of rights to resources, female labour force participation rates, education levels, patterns of labour market discrimination and segregation, and socio-cultural environments. She also states that in some parts of developing countries educated younger women have been drawn into paid work in the initial stages of the expansion of export production. The evidence, however, indicates that the benefits have been short-lived. According to Fontana, theoretical predictions about the effects of trade liberalization on employment are based not only on the assumption of full employment of resources but also on the quickly adjusting and frictionless markets. She argues that in developing countries structural factors and non-price mechanisms continue to obstruct the response to changes in relative prices. Thus, due to labour market segmentation labour displaced in the sectors that contract may not easily be re-employed in the sectors that expand — a feature that is significant and important from a gender perspective.

Trade liberalization affects men and women differently because of their gender specific roles. Gender and development theory suggests that women tend to be more vulnerable to the negative effects of neoliberal trade reforms because they are responsible for domestic labour and have less access to economic resources like, basic and higher education, property, credit, training and promotion in the workplace [Sen and Grown (1987), Rathberger (1990), Connelly et al (1995) and Marchand (1996)]. According to Haddad et al (1995) "In order to participate an individual must own factors of production, or have access to them, and must be able to reallocate them in line with the new economic incentives that trade liberalization precipitates."

An argument given by the proponents of free market policies is that increased trade and investment liberalization can improve economic growth, which, in turn, can increase women's participation in the labour market as a result of increased employment in the non-traditional and informal sectors. On the other hand, it is also said that increased trade and investment liberalization lead towards greater flexibility (such as subcontracting, casual and fixed-term employment) and deregulation of labour markets and work across sectors due to global competitiveness and technological innovation. This tends to

increase unemployment due to contraction of some subsectors and the expansion of others which may require different skills and/or fewer workers. A trend that makes women more vulnerable than men, who are perceived as the bread earners.

Cagatay (2001) examined the impact of trade liberalization on gender inequalities via employment, wages and the care economy. She concluded that men and women are affected differently by trade policies and performance, owing to their different locations and control over resources within the economy. Moreover, gender-based inequalities, depending on the type of economy and sector, have a different impact on trade policy outcomes. Finally, she suggested that gender analysis is essential to the formulation of trade policies that enhance rather than hinder gender equality and human development. She challenged the widely accepted view that expanding global trade is beneficial to all countries and their citizens. She advocated that measures of development based on market criteria (income or consumption) be replaced by those based on human well-being, particularly of those often left out - the poor, racial and other minorities, and women. She refers to studies which show that increase in female employment through export-oriented production seems to be more common in the manufacturing sector and in semi-industrialised economies, while trade liberalization in predominantly agricultural economies may put women at a disadvantage compared to men, even when traditional export crop production increases.

Trade Liberalization and Gender Perspective: International Recognition

Gender dimensions of international trade and investment are drawing increasing interest from academic and policy researchers, policymakers and civil society groups. World Trade Organization (WTO) expresses the gender-differentiated effects of trade liberalization and other trade-related processes extremely relevant to its mandate and operations, an effect that was particularly brought forward in Doha Development Agenda.

In the seventies, the International Development Strategy adopted by the United Nations General Assembly along with the first World Conference on Women held in Mexico City in 1975 launched the UN Decade for the Advancement of Women. Consequently, a number of commitments were made at international and regional levels. For instance, at the Fourth World Conference on Women in 1995, the Beijing Platform for Action made Governments commit to "ensure that national policies related to international and regional trade agreements do not have an adverse impact on women's new and traditional economic activities." It also called on the UN General Assembly to "give consideration to inviting the World Trade Organization to consider how it might contribute to the implementation of the Platform for Action, including activities in cooperation with the United Nations system."

Gender issues related to increased global trade and investment have also been emphasized by the UN Commission on the Status of Women (CSW) expert committee. The CSW has proposed that governments, international organizations and other stakeholders must mainstream gender in development, trade and financial institutions.

The Commission also emphasised on the need to enhance market access for developing countries and transitional economies, particularly in sectors that provide greater employment opportunities for women; and to help women-owned businesses to benefit from international trade and investment in order to confront the challenges of   poverty reduction and women empowerment in a globalizing world.

In 1999, the UN Conference on Trade and Development (UNCTAD) focusing on trade, sustainable development and gender along with the follow-up meeting of experts also emphasised on the respective governments to ensure mainstreaming gender concerns particularly in the areas of commodities, trade in services, foreign direct investment policy, enterprise development, and information and communication technologies. In 2003, a UN Inter-Agency Task Force on gender and trade lead by UNCTAD was constituted to coordinate research and to further capacity building and advocacy activities within the UN system.

In 1999, members of the Asia-Pacific Economic Cooperation (APEC) forum endorsed a Framework for the Integration of Women in APEC. In its Second Ministerial Meeting on Women held in 2002, the recommendations made included: APEC economies should intensify their work on gender analysis, collection of sex-disaggregated data and inclusion of more women in all APEC activities; APEC economies must take into account the gender-differentiated impacts of trade liberalization in formulating trade policies; and address the negative impact of restructuring of industry as a result of trade liberalization on women workers.

The Civil society organizations and gender networks across regions have also been actively involved in lobbying for gender concerns related to trade liberalization and foreign direct investment at international, regional and national levels. For example, the Women Caucus was established at the First Ministerial Conference of the WTO in 1996 to advocate for gender-sensitive policies and procedures. The Women Caucus also formed an Informal Working Group on Gender and Trade (IWGGT), which met with WTO officials in 1997 to discuss opportunities for addressing gender issues within the WTO through Trade Policy Reviews. The group produced Briefing Papers on gender and trade and participated in civil society activities around the Second Ministerial Conference in 1998, and the Third Ministerial Conference in 1999. The International Gender and Trade Network (IGTN) formed in early 2000 includes seven regional networks of women mainly involved in research, economic literacy and advocacy on trade and investment issues. IGTN members participated in civil society activities around the Ministerial Conferences of WTO in Doha and Cancun.

Structure of the Pakistan's Economy

Supporters of trade liberalization generally argue that it tends to enhance economic growth, which is usually considered a necessary condition for generating employment opportunities. Therefore, it is important to study the changes that have occurred in the

production structure of a country during the period of trade liberalization. This would help understand the changes that have occurred in the employment structure of women and men in the liberalization period[4].

Trade Liberalization Policies in Pakistan[5]

The government initiated reforms in 1988 to liberalize of the economy under the Structural Adjustment Program (SAP) ⸺ refoms that were recommended by the International Monetary Fund (IMF) and the World Bank. In addition to taking measures like privatization, deregulation and liberalization of capital accounts, steps were also taken to liberalise trade. The objective behind trade liberalization was to get (relative) prices right in the tradable sector that would help improve efficiency in the allocation of resources and generate rapid economic growth fuelled by export growth. However, meaningful and substantial trade liberalization policies were only initiated in early nineties.

Trade liberalization policies initiated included removal of quantitative barriers, reduction in tariffs, conversion of non-tariff barriers into tariffs, provision of various exemptions and concessions on customs duties, elimination of quotas, removal of subsidies, reduction in the number of items on the banned and restrictive list, abolishment of industrial licensing, and the reform of exchange rate regime. In particular, import taxes were reduced, the number of items on the banned and restrictive list was reduced from 300 to 75, industrial licensing was abolished, most SROs (a major source of trade distortions) were withdrawn, and non-tariff barriers were largely dismantled. These measures were accompanied by greater capital account liberalization, opening up to foreign investment, and more liberal policies on the domestic front.

Ever since 1988, in spite of the frequent change of government, all have focused on export-led or outward-oriented and liberal trade policies. The effective tariff rate which is often used to judge the extent of trade liberalization in the economy is shown in Chart 3.1. It was on an average 47.6 percent per annum during 1980-81 to 1987-88 and declined to an average of 25.5 percent per annum during 1988-89 to 2007-08. This primarily is a consequence of the substantial cascading down of import tariffs in an effort to liberalize trade in the country.

Considering the gender aspects of employment generation, trade policies were rather silent on gender roles in employment structure and did not explicitly illustrate their implication on women. Since the idea behind trade liberalization was to promote exports induce growth by increasing competition, it was thought that the entire process would in turn create employment opportunities for both men and women. This was guided by the assumption that women would automatically be inducted in to the labour force and would get employment. The trade policies did not take into consideration the socio-cultural realities and the constraints imposed on women to participate in economic activities - a fact that requires simultaneous response from all other relevant ministries and line departments.

Chart 3.1
Trend in Effective Tariff Rates

(percent)

Average ETR = 47.6

Average ETR = 25.5
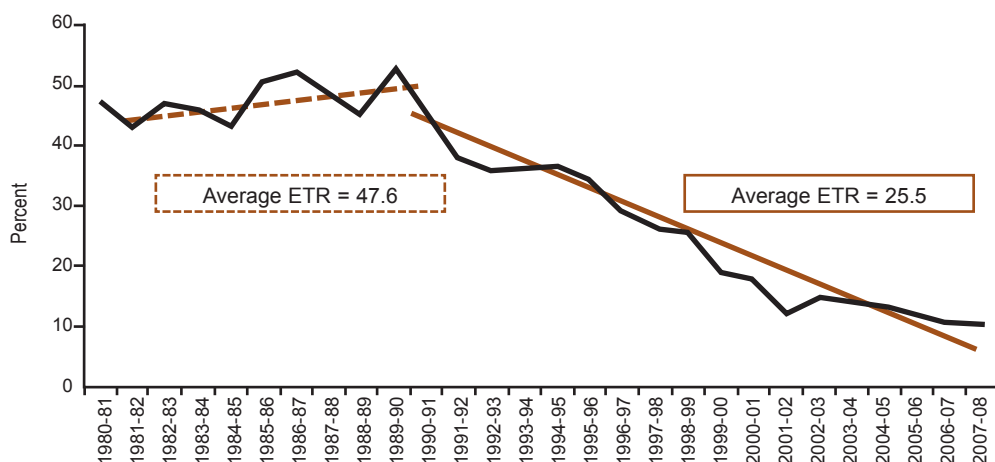
Composition of GDP, Exports and imports

Table 3.1 gives the composition of GDP by sector and shows that the composition of GDP has changed substantially over time. The share of commodity producing sector, comprising of agriculture and industry, declined while that of services increased. During the 1970s and 1980s, the commodity producing sector constituted more than 50 percent of the GDP. During the 1990s and 2000s, the share of agriculture sector in GDP persistently declined and as a result the share of commodity producing sector reduced to less than 50 percent. In 2007-08, services sector was 53 percent of GDP, industry 26

Table 3.1
Composition of GDP by Sector

(% Share)

Sector	Pre-Liberalization Period				Liberalization Period				
	1972-73	1975-76	1980-81	1985-86	1990-91	1994-95	1999-00	2003-04	2007-08
1. Agriculture	**35.7**	**32.0**	**30.8**	**27.6**	**25.7**	**25.9**	**25.9**	**22.9**	**21.3**
2. Industry	**22.1**	**22.7**	**22.6**	**23.3**	**25.8**	**24.5**	**23.3**	**25.5**	**25.7**
i. Mining & Quarrying	0.6	0.8	0.4	0.7	0.7	0.5	2.3	2.6	2.6
ii. Manufacturing	16.2	14.9	15.1	16.3	17.5	17.1	14.7	17.3	19.2
iii. Electricity and Gas Distribution	1.6	1.4	2.4	2.3	3.4	3.3	3.9	3.7	1.6
iv. Construction	3.7	5.6	4.7	4.1	4.2	3.6	2.5	2.0	2.4
3. Services	**42.2**	**45.2**	**46.6**	**49.0**	**48.6**	**49.6**	**50.7**	**51.6**	**53.0**
i. Wholesale and Retail Trade	14.5	15.8	15.1	15.6	16.7	16.3	17.5	18.2	17.3
ii. Transport, Storage & Communication	6.9	7.0	9.7	8.8	8.6	10.1	11.3	10.9	10.2
iii. Finance and Insurance	2.3	2.5	2.2	3.2	3.0	3.3	3.7	3.4	6.4
iv. Ownership of Dwellings	3.6	3.6	4.5	5.0	4.4	4.3	3.1	3.0	2.7
v. Public Administration & Defense	7.2	7.9	7.8	9.0	8.4	7.7	6.2	6.3	5.9
vi. Community, Social & Personal Services	7.5	8.4	7.3	7.4	7.5	7.8	9.0	9.7	10.6

Table 3.2
Composition of Exports and Imports *(% Share)*

| Year | EXPORTS | | | IMPORTS | | | |
| | Primary Commodities | Semi-Manufactures | Manufactured Goods | Consumer Goods | Industrial Raw Material for | | Capital Goods |
					Consumer Goods	Capital Goods	
Pre-Liberalization Period							
1972-73	40	30	30	30	31	10	30
1975-76	44	18	38	21	38	6	35
1980-81	44	11	45	15	50	8	28
1985-86	35	16	49	18	40	5	37
Liberalization Period							
1990-91	19	34	57	16	44	7	33
1994-95	11	25	64	14	46	5	35
1999-00	12	15	73	14	54	6	26
2003-04	11	10	79	9	50	6	35
2007-08	17	9	74	13	51	9	28

Source:GoP, Economic Survey (various issues)

percent and agriculture 21 percent. Looking at the structure of GDP, it is important to understand its implication for the structure of female and male employment by sector.

Composition of exports and imports also changed substantially with the passage of time. In the 1970s, primary commodities that constituted over 40 percent of Pakistan's exports declined rapidly to less than 20 percent since the 1990s (Table 3.2). On the other hand, the share of manufacturing exports grew sharply from over 30 percent in the 1970s to over 70 percent in the 2000s. At present, one sixth of exort is composed of primary commodities and, semi-manufactures each 15 percent and over two thirds is manufactured goods. As far as imports are concerned, Pakistan's reliance on imports of raw material for consumer goods accelerated over time. Imports of consumer goods depicted a continuous declining trend till mid-2000s which, however, increased later. Imports of capital goods remained between 28 to 35 percent. Table 3.2 indicates that Pakistan largely imports capital goods and raw material for consumer goods.

Major Exports and Imports of Pakistan

The commodity concentration of Pakistan's exports has not changed much over time. Although, the contribution of manufactured goods exports has risen to nearly 70 percent, it is mainly related to textile-sector exports. The expansion of the manufacturing sector largely reflects the expansion of the textile sector as the share of cotton and cotton products has noticeably increased from 47 percent in 1980-81 to more than 69 percent in 1995-96 (Table 3.3). Though, the share later declined, yet it constitutes more than 50 percent in total exports. The other major exports include rice, leather and leather products, carpets and rugs, fish and fish preparation and sports goods. The extent of improvement in other sectors is very low or has even declined in some cases. This suggests a degree of concentration in Pakistan's exports towards textile sector.

Table 3.3
Major Exports of Pakistan   *(% Share)*

Commodities	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2008-09
Cotton & Cotton Products	47.1	54.4	65.5	68.9	64.4	59.9	53.8
Rice	19.1	11.1	5.7	5.8	5.7	6.9	11.2
Fish & Fish Preparations	1.9	2.7	1.9	1.6	1.5	1.2	1.3
Fruits & Vegetables	0.0	0.0	0.8	0.7	1.3	1.1	1.3
Carpets & rugs	7.7	5.4	3.6	2.4	3.1	1.6	0.8
Leather & Leather Manufactures	3.4	6.8	8.9	6.8	7.2	6.1	4.7
Sports Goods	1.1	1.6	2.2	2.8	2.9	2.1	1.5
Petroleum & Products	5.7	1.0	1.6	0.8	2.0	5.1	4.6
Surgical & Medical Instruments	0.9	1.7	1.4	1.5	1.3	1.0	1.4
Others	13.2	15.2	8.4	8.7	10.5	15.1	19.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source:GoP, Economic Survey (various issues)

Table 3.4
Break-up of Textile Products   *(% Share)*

Commodities	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2008-09
Cotton Yarn	25.1	24.5	32.9	28.1	18.5	14.0	11.6
Cotton Fabrics	27.9	27.2	18.7	22.9	17.8	21.4	20.2
Readymade Garments	8.7	17.8	13.8	11.8	14.3	13.3	13.0
Bed ware	2.4	7.8	6.8	7.7	12.9	20.7	17.9
Knitwear	2.7	4.7	9.3	12.8	15.7	17.8	18.0
Towels	5.5	5.8	3.6	3.2	4.2	6.0	6.6
Tarpaulin & Canvas	7.5	2.7	2.2	0.7	0.8	0.4	0.6
Synthetic Textiles	14.8	4.3	9.6	8.6	9.4	2.0	3.3
Other textile made-up	1.3	4.5	3.0	3.3	5.7	4.1	5.1
Others	4.1	0.8	0.1	1.0	0.6	0.4	3.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source:Federal Bureau of Statistics, GoP

Table 3.5
Major Imports of Pakistan

(% Share)

Commodities	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2008-09
Food	10.4	20.9	12.3	14.1	10.5	7.2	11.9
Petroleum & Products	28.4	18.4	22.1	16.8	31.3	23.4	27.3
Machinery	14.2	19.9	20.4	21.7	15.3	21.3	18.9
Transport Equipment	7.4	10.1	6.7	4.7	4.0	7.8	3.8
Chemical Group	13.7	12.8	16.3	18.5	17.7	14.6	15.0
Iron and steel	4.9	3.7	6.3	4.1	2.6	4.8	4.0
Others	21.0	14.2	15.8	20.0	18.6	20.9	19.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source:Federal Bureau of Statistics, GoP

The reliance on a single category manufacturing exports, in general, bears considerable risks as it increases the vulnerability of exports by confining them to developments in a specific world market segment. In case of textile sector, in particular, the risk is substantial particularly since it depends on a good cotton crop, which unfortunately is exposed to dangers of virus attack, floods and bad weather. Besides concentration, the level of value-addition is very low in Pakistan's exports. For example, in textiles Pakistan has largely been relying on export of cotton yarn, cotton cloth and bed ware. The share of readymade garments which is a high value added item is very low (Table 3.4).

Table 3.5 reflects Pakistan's continuous reliance on imports of machinery, chemicals and miscellaneous items (including important inputs for industrial sector) besides petroleum and related products. This indicates that manufacturing sector has not broadened to produce capital goods and industrial raw materials. Success that is achieved in shifting exports from primary commodities to manufactured goods lessened when huge amount of foreign exchange is required for importing inputs for manufacturing production.

Economic Growth and Trade Indicators

Chart 3.2 shows the performance of economic growth in terms of real GDP growth. It indicates that economic growth though remained volatile since 1972-73, a downward trend is particularly apparent between 199091 and 2000-01. It then increased till 2004-05 and then declined thereafter.

Exports as percent of GDP shows a declining trend in the 1970s from over 12 percent to 8.5 percent, which later increased to over 12 percent in the 1980s. After trade liberalization, this ratio remained within the range of 12 percent to 14 percent in the 1990s

Chart 3.2
Growth Rate in Real GDP   *(percent)*
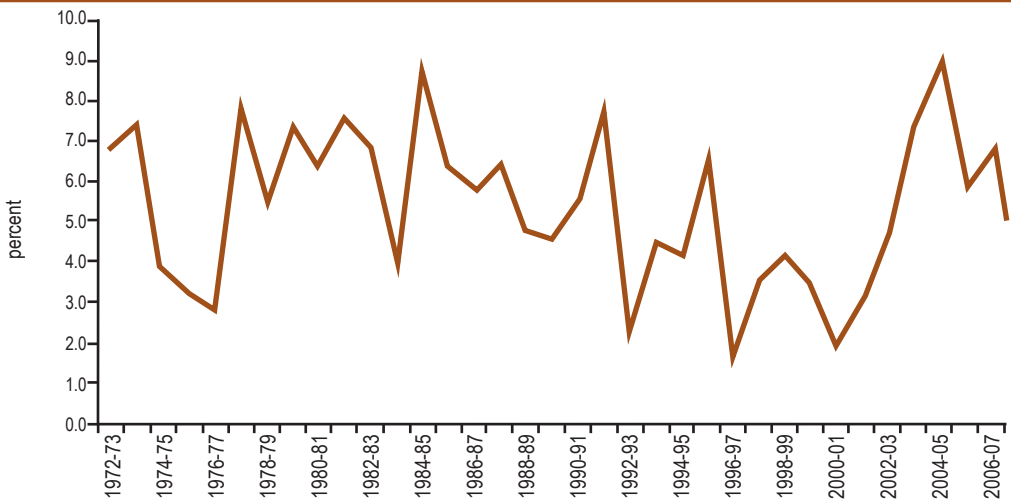
Source: SPDC estimates based on data from Federal Bureau of Revenue (FBR).

Chart 3.3
Trend in Export and Import-to-GDP Ratio *(percent)*
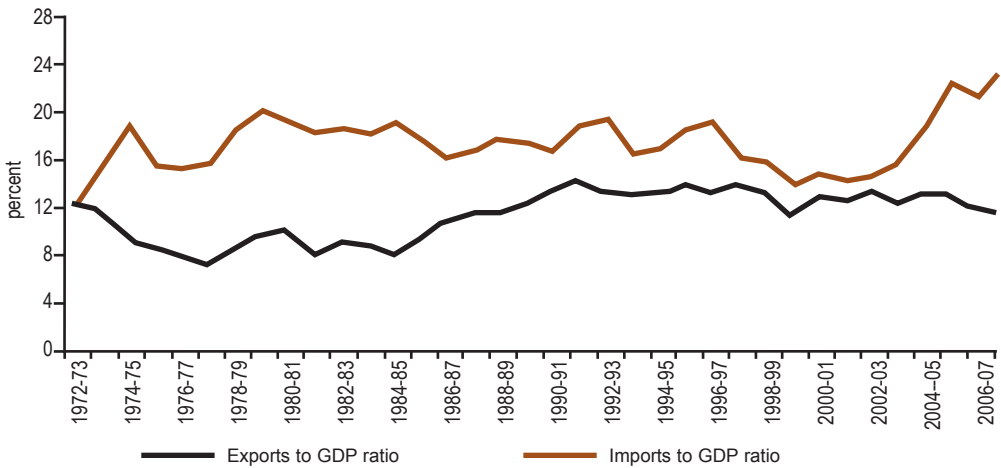
and the first half of 2000s. Imports as percent of GDP, though fluctuated, remained in the range of 12 percent to 19 percent during 1973-74 to 1995-96. The ratio kept declining and reached 14.5 in 2002-03. Subsequently, an upward trend is noticed when it reached to over 24 percent in 2007-08 (Chart 3.3). As such, trade liberalization does not apear to have significantly altered Pakistan's exports and imports relative to GDP.

Nature of Female and Male Employment

After having discussed the pattern and trends of economic growth and trade, this section looks into the characteristics of employment and the change that have accured in the female and male employment pattern. The analysis is based on data from Labour Force Survey (LFS) carried out periodically by the Federal Bureau of Statistics (FBS). The estimates are largely derived by using micro data sets of LFS available from 1990-91 onwards.

LFS defines labour force or economically active population as, "currently active population or labour force comprises of all persons ten years of age and above who fulfil the requirement of inclusion among employed or unemployed during the reference period i.e. one week preceding the interview." Since the population in the age group 10-14 years is considered as child labour as per international labour laws and International Labour Organization guidelines, the research report considers labour force as population 15 years of age and above.

The study specifically looks at the following areas:

● Labour force participation rate and growth in employment;
● Various dimensions of the structure of employment; and
● Level of education of employed labour force.

Chart 3.4
Labour Force Participation Rate (%)

Year	Both	Male	Female
1971-72	50.8	88.5	9.1
1974-75	49.3	87.2	7.0
1978-79	51.2	86.6	12.6
1982-83	49.7	85.1	11.3
1986-87	49.9	84.4	12.7
1990-91	49.7	83.6	13.9
1994-95	48.4	82.3	12.7
1999-00	50.4	83.2	16.3
2003-04	50.7	82.7	18.0
2007-08	52.5	82.4	21.7
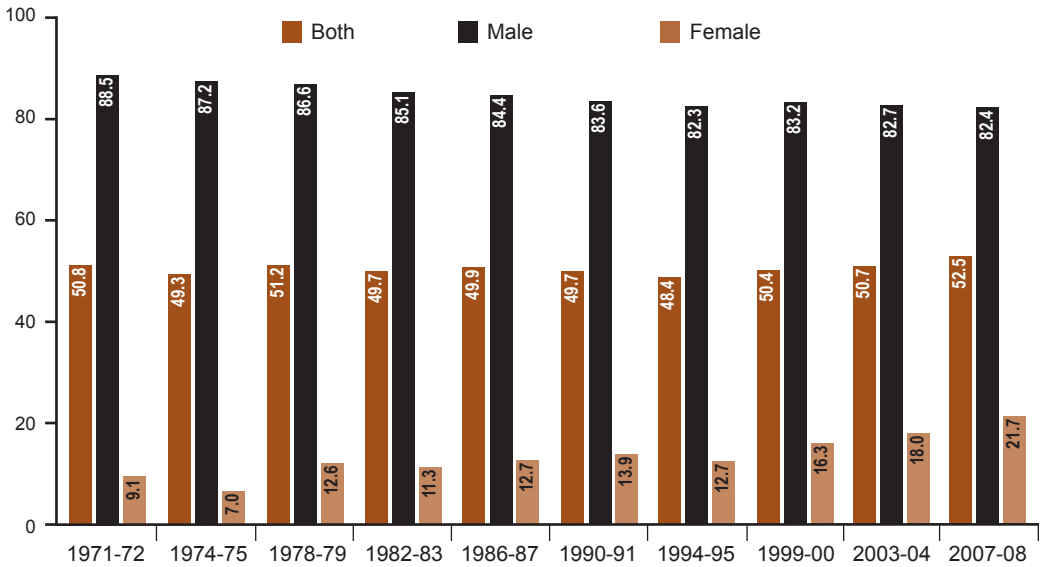
3.4.1 Labour Force Participation Rate

Chart 3.4 gives the female and male participation rates. The Labour Force Participation Rate (LFP) is defined as the ratio of labour force (both employed and unemployed but seeking work) to the population of respective age cohort. Being a key determinant of the currently active population or an indicator of the magnitude of supply of labour in the economy, it is a crucial component of long term economic growth.

In Pakistan, the overall labour force participation rate remained roughly in the range of 49 percent to 51 percent during 1971-72 to 2003-04. However, it increased to 52.5 percent in 2007-08. This means that of the total population in 2007-08, aged 15 years and above, 53 percent is economically active or part of the labour force whereas 47 percent is economically inactive or out of the labour force. The gender-wise percentage mentioned in Chart 3.2 indicates that labour force participation rate of male declined from 89 percent in the 1971-72 to 87 percent in 1990-91 and then remained between 82 percent and 83 percent during the 1990s and in the current decade. As opposed to this, the labour force participation rate of female increased from a very low level of 9 percent in 1971-72 to 22 percent in 2007-08. Female labour force participation rate increased in the 1970's, remained firm in the 1980's and increased substantially in mid-2000's. The trend emerging from Chart 3.4 is positive and indicates that the overall gender gap in labour force participation rates is narrowing. However, it is still disappointing that 78 percent of the total female population of age 15 years and above continue to be out of the labour force as against 18 percent in the case of male.

Chart 3.5
Female Labour Force Participation by Region (%)
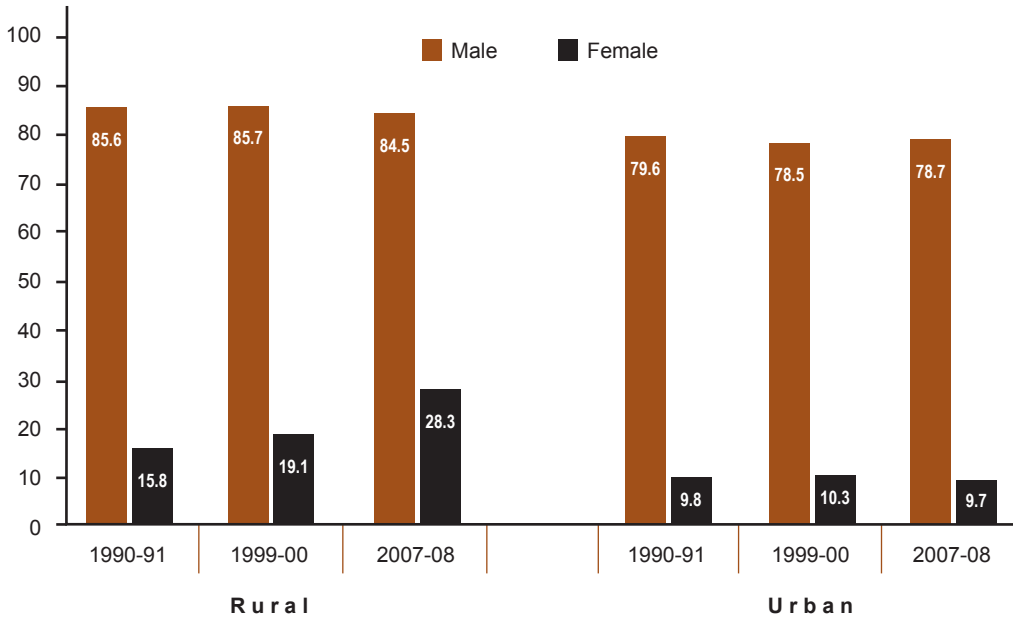
Female labour force participation rate in rural areas increased from 16 percent to 28 percent from 1990-91 to 2007-08 and comparatively remained around 10 percent in the urban areas (Chart 3.5).

Growth in Employment

Table 3.6 gives decade-wise growth rates in female and male employment along with GDP, exports and imports growth rates. Some important conclusions emerge from the analysis of these annual growth rates for four decades: (1) there is a lack of variability in the growth rate of male employment that remained between two to three percent per annum irrespective of the overall trends seen in the labour market, while the growth rate in female employment experienced large fluctuations; (2) growth in female employment declined to 2.7 percent per annum in the 1980s from 8.6 percent per annum in the 1970s; whereas, the average annual growth rate of real GDP and real exports increased in the 1980s; (3) while growth in real GDP, real exports and real imports though declined in the 1990s, growth in employment, both female and male, picked up; (4) in the 2000s, growth in female employment bounced back and nearly reached to the employment growth rate of 1970s; the growth in real GDP, real exports and real imports also substantially increased.

Statistics presented in Table 3.6 indicate a weaker link between the female employment and real GDP growth. The role that export growth played is also invisible in

Table 3.6
Trend in Growth rates of GDP and Trade

(Percent)

Period	Real GDP	Real Exports	Real Imports	Employment Growth		
				Both	Male	Female
Pre-Liberalization Period						
1970s	5.4	1.5	9.0	3.3	2.8	8.6
1980s	6.1	7.3	2.9	2.1	2.0	2.7
Liberalization Period						
1990s	4.2	2.6	2.1	2.8	2.5	4.8
2000s	5.8	8.8	11.1	3.4	2.4	8.2

Source: Economic Survey, GoP, Labour Force Survey.

the growth of female employment. While the average annual growth in real GDP and real export was 5.4 percent and 1.5 percent respectively in the 1970s, female employment growth was 8.6 percent. During 1980s, this trend reversed when real GDP and exports grew by 6.1 percent and 7.3 percent respectively and female employment grew only by 2.7 percent. The only period where GDP, exports and female employment growth show a similar trend is 2000s.

Structure of Employment

Employment by Economic Activity

Table 3.7 indicates that agriculture work is far more common for women than for men. Roughly, more than two-thirds of employed women work in agriculture sector compared to over a third of employed men. The sharp decline in the share of employed male in agriculture indicates replacement of men with female workers in the agriculture sector; males appearing to have entered the informal sector. Despite high economic growth (on average 6 percent per annum), employment opportunities in formal sector has been declining both for male and female where the decline in the case of female is much sharper. Compared to males, females do not have much employment opportunities in the informal sector as well.

Employment by Sector

Table 3.8 indicates trend in distribution of and relative shifts in employment by sector for females and males. Agriculture remains major sector in generating employment opportunities both for males and females. In 1990-91, the agriculture sector constituted 44 percent of male employment and 66 percent of female employment. In 2007-08, male employment in the sector declined to a quarter and that of female employment increased to nearly three-quarters.

Among the non-agriculture sectors male employment is spread across various sectors, including wholesale and retail trade, community, social and personal services,

Table 3.7
Employed Male and Female by Sector of Economic Activity

	1996-97	1999-00	2003-04	2007-08
Female				
Agriculture	66.4	73.7	66.6	73.8
Formal	12.9	9.5	11.8	7.4
Informal	20.7	16.8	21.5	18.8
Total	**100.0**	**100.0**	**100.0**	**100.0**
Male				
Agriculture	39.7	43.4	37.0	35.2
Formal	21.7	19.8	19.0	17.9
Informal	38.6	36.8	44.1	47.0
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Labour Force Survey, GoP

Table 3.8
Distribution Male and Female Employment by Sector

(Percent)

Sectors	1990-91	1994-95	1999-00	2003-04	2007-08
M a l e					
Agriculture, Forestry, Hunting and Fishing	43.9	43.1	43.4	37.0	35.2
Mining and Quarrying	0.2	0.1	0.1	0.1	0.1
Manufacturing	12.0	10.5	12.0	13.6	13.5
Electricity, Gas and Water	1.0	1.0	0.8	0.8	0.9
Construction	7.6	8.2	6.9	7.2	8.0
Wholesale and Retail Trade & Restaurants/Hotels	14.9	16.3	15.5	17.7	18.3
Transport, Storage and Communications	6.1	5.8	6.0	7.0	7.0
Financing, Insurance, Real Estate & Business Activities	1.0	0.9	1.0	1.3	1.8
Community, Social and Personal Services	13.3	14.1	14.4	15.1	14.9
Activities not adequately defined	0.1	0.1	0.0	0.1	0.1
F e m a l e					
Agriculture, Forestry, Hunting and Fishing	65.7	66.4	73.6	66.5	73.8
Mining and Quarrying	0.0	0.0	0.0	0.0	0.0
Manufacturing	12.6	9.2	8.0	14.6	11.9
Electricity, Gas and Water	0.1	0.0	0.1	0.1	0.0
Construction	1.2	1.2	0.3	0.3	0.3
Wholesale and Retail Trade & Restaurants/Hotels	3.2	3.0	2.5	1.8	1.9
Transport, Storage and Communication	0.5	1.0	0.2	0.1	0.2
Financing, Insurance, Real Estate & Business Activities	0.2	0.2	0.2	0.1	0.2
Community, Social and Personal Services	16.4	19.1	14.9	16.4	11.5
Activities not adequately defined	0.0	0.0	0.0	-0.2	0.0

Source: Labour Force Survey, GoP

manufacturing, construction, and transport, storage and communications. Female employment, however, is more concentrated in manufacturing and community, social and personal services. In the manufacturing sector, their inclusion increased during mid-1990s to mid-2000s and then declined afterwards. It can be said that a recent slowdown of manufacturing sector output caused a decline in female employment, particularly, of firms that are export-oriented (textile and clothing, leather, sports goods) and where females are mostly engaged.

Findings reveal that employment opportunities for women grew rather rapidly in agriculture, while its importance for men declined during the past 18 years. During the same period, the share of agriculture in the economy (GDP) also declined[6]. During 1990-91 to 2007-08, the share of agriculture registered a decline of 4 percentage points in GDP and 9 percentage points in terms of male employment, but an increase of 8 percentage points in female employment. Furthermore, the analysis shows that female employment largely remained concentrated in three sectors i.e. agriculture, manufacturing and community and social services. Females in Pakistan have not succeeded in entering sectors such as, wholesale and retail trade, banking and insurance, and transportation and communications. Several factors are attributed for such a discriminatory pattern of female employment. The most frequent being low level of educational attainment compared to men, social custom or employer preference along with the socio-cultural traditions including household responsibilities.

Table 3.9 gives female employment concentration by sub-division of sectors i.e., agriculture, manufacturing, community and social services by rural and urban areas. In rural areas, females are largely engaged in economic activities related to agriculture, and livestock. Their share in these sectors has increased in recent years. In urban areas, females are mainly concentrated in textile, wearing apparel and leather industries, social and related community services, and personal and household services.

Given that Pakistan's exports largely consist of agriculture and textile, wearing apparel and leather products, concentration of female employment in these sectors indicate that they are largely employed in export oriented sectors. A trend that is in-line with the literature, which indicated that in developing countries females are usually employed in the export-oriented sectors.

Employment by Occupation

Table 3.10 gives the percentage of male and female employment by occupational categories. While agricultural occupations account for the single largest grouping among male and female, it is even more visible for females than males. The proportion of employed females engaged in this sector increased from 48 percent in 1996-97 to 67 percent in 2007-08, while that of employed males decreased from 39 percent in 1999-00 to 33 percent in 2007-08.

Among other sectors, male employment relatively spread over different occupational categories; whereas, that of females largely remained confined to craft and related trade,

Table 3.9
Distribution of Female Employment
by Sub-division of Manufacturing Sector and Region

(Percent)

Sub-Division of Manufacturing Sector	RURAL			URBAN		
	1990-91	1999-00	2007-08	1990-91	1999-00	2007-08
Agriculture, livestock and hunting	77.97	86.83	83.21	14.32	8.90	16.43
Forestry and logging	0.02	0.00	0.75	0.00	0.21	0.00
Manufacture of food, beverage and tobacco	0.39	0.16	0.10	1.83	1.42	0.87
Manufacture of textile, wearing apparel and leather industries	8.50	3.62	6.61	19.92	21.29	28.26
Manufacture of wood and wood products including furniture	0.06	0.00	0.13	0.57	0.20	0.20
Manufacture of paper & papers products, printing & publishing	0.00	0.06	0.03	0.69	0.95	0.26
Manufacture of non-metallic mineral products	0.77	0.40	0.74	1.15	0.35	0.81
Manufacture of fabricated metal products, machinery & equipment	0.00	0.05	0.03	0.70	0.17	0.14
Other manufacturing industries and handicrafts	0.70	0.33	1.04	0.34	0.38	0.49
Public administration and defence services	0.19	0.01	0.12	5.67	0.73	1.55
Social and related community services	2.82	3.42	3.93	26.89	35.11	28.36
Personal and household services	4.64	2.66	1.54	15.88	20.07	12.97
Other	3.94	2.46	1.76	12.05	10.22	9.67
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Labour Force Survey, GoP

Table 3.10
Distribution of Employed Males and Females by Occupational Categories

(Percent)

Sectors	1996-97	1999-00	2003-04	2007-08
Male				
Legislators, senior officials and managers	10.0	13.0	14.2	16.2
Professionals	3.2	2.3	2.1	1.7
Technicians and associate professionals	2.7	4.0	4.3	5.2
Clerks	3.4	1.9	2.0	2.1
Service workers and shop and market sales workers	8.3	4.9	5.9	5.9
Skilled agricultural and fishery workers	33.9	39.2	33.5	32.6
Craft and related trades workers	9.7	15.8	16.3	16.3
Plant and machine operators and assemblers	5.7	4.0	4.7	5.2
Elementary (unskilled) occupations	22.9	14.9	17.0	14.8
Total	**100.0**	**100.0**	**100.0**	**100.0**
Female				
Legislators, senior officials and managers	1.9	2.4	1.5	2.0
Professionals	6.8	2.4	2.0	0.8
Technicians and associate professionals	4.2	6.6	9.4	7.2
Clerks	0.3	0.2	0.3	0.2
Service workers and shop and market sales workers	4.6	0.5	0.8	0.6
Skilled agricultural and fishery workers	49.7	57.4	52.1	66.6
Craft and related trades workers	9.5	8.8	14.3	11.9
Plant and machine operators and assemblers	0.3	0.3	0.6	0.2
Elementary (unskilled) occupations	22.8	21.4	19.2	10.5
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Labour Force Survey, GoP

and elementary (unskilled) occupations. A relatively large percentage of women in technical occupations may seem surprising, however, the occupations covered in this category include computer-related occupations, nursing aides and midwives, and less qualified primary, pre-primary and special education teachers.

The category of professionals associated with relatively high earnings is largely dominated by males, whereas, the proportion of females has increased over the years in low paid occupations. The occupational segregation, thus, is among the key determinants to understand the gender differentials of earnings.

Among the four categories where female employment is concentrated, occupation related to skilled agricultural and fishery workers largely exists in rural areas while the remaining three are concentrated in urban areas (Table 3.11). The decline in the share of elementary unskilled occupations in both rural and urban areas is, however, encouraging.

Table 3.12 highlights the distribution of occupational category of employed female, in sectors where their employment is concentrated. It shows that in the agriculture sector 90 percent of the employed females are skilled agricultural and fishery workers and 10 percent are working as elementary unskilled workers. In the manufacturing sector, over 95 percent are working as craft and related trade workers. However, in community, social and personal services, 61 percent are technicians and professionals and 23 percent are elementary unskilled workers.

Employment by Status

According to the LFS, employed labour force is divided into the following four categories of employment status: employer, self-employed, employee, and unpaid family helpers. Table 3.13 gives the distribution of employed female, and male, by categories of employment status.

Among employed women majority have been in the category of 'unpaid family helpers'. Unpaid family helper implies that a person though engaged in production is not getting money for his/her services. As apparent from Table 3.13, in this category of employment both males and females remained concentrated in rural areas. The share of unpaid family helpers in total employed women in rural areas increased from 53 percent in 1990-91 to 60 percent in 2007-08, while that of males increased from 12 percent in 1990-91 to 14 percent in 2007-08.

Looking at the status of employment it is evident that a sizeable number of unpaid family helpers are included in the standard labour force statistics of Pakistan, particularly in the case of females. It is surprising that though the economy added around 4 million jobs for women during 2000-01 to 2007-08, 85 percent of these consisted of the unpaid family helpers, implying that women tend to dominate in categories that are linked with unpaid work and have less authority.

Table 3.14 reveals that 94 percent of females among unpaid family helpers and 62 percent among self-employed are working in agriculture sector. Within the category of employees, 43 percent are engaged with community, social and personal services and 27 percent with manufacturing. The female employers are mainly working in manufacturing (49 percent) and community, social and personal services (51 percent) sectors.

Table 3.11
Occupational Categories of Employed Females by Region

(Percent)

Occupational Category	RURAL		URBAN	
	1999-00	2007-08	1999-00	2007-08
Technicians and associate professionals	2.93	4.16	23.64	25.82
Skilled agricultural and fishery workers	68.21	75.25	5.44	13.76
Craft and related trades workers	5.45	8.86	25.00	30.60
Elementary (unskilled) occupations	20.94	9.73	22.80	14.94
Other	2.47	2.00	23.12	14.89
Total	**100.00**	**100.00**	**100.00**	**100.00**

Source: Labour Force Survey, GoP

Table 3.12
Occupational Categories of Employed Females by Sector 2007-08

(Percent)

Occupational Category	Agriculture, Forestry, Hosuing and Fishing	Manufacturing	Community, Social and Personal Services
Legislators, Senior Officials and Managers	0.08	0.44	2.39
Professionals	0.00	0.10	6.43
Technicians and Associate Professionals	0.00	0.82	60.78
Service Workers and Shop & Market Sale Workers	0.00	0.35	2.44
Skilled Agricultural and Fishery Workers	90.12	0.00	0.13
Craft and related trade Workers	0.04	95.57	4.31
Elementary (Unskilled) Occupations	9.70	2.55	22.50
Others	0.06	0.15	1.02

Source: Labour Force Survey, GoP

Table 3.13
Distribution of Employed Female and Male by Employment Status

(Percent)

Year	Employer		Self-employed		Unpaid family helpers		Employees	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Female								
1990-91	0.15	0.12	13.15	3.14	52.99	3.87	14.33	12.25
1994-95	0.05	0.23	11.51	2.44	57.38	2.49	13.23	12.66
1999-00	0.04	0.08	13.15	3.24	46.88	1.98	20.63	14.00
2003-04	0.03	0.06	12.89	4.11	48.43	3.00	18.69	12.78
2007-08	0.01	0.02	11.63	2.29	59.76	3.40	14.46	8.43
Male								
1990-91	0.69	1.28	37.50	10.46	11.47	2.44	19.28	16.88
1994-95	0.34	0.77	37.39	10.65	12.69	2.44	20.68	15.06
1999-00	0.14	0.81	36.91	11.33	11.57	2.89	20.04	16.04
2003-04	0.20	0.89	31.31	11.61	12.85	3.32	20.99	18.85
2007-08	0.33	0.90	29.76	11.49	13.55	3.43	21.49	19.06

Source: Labour Force Survey, GoP

Table 3.14
Employment Status of Female by Sector 2007-08

(% Share)

	Agriculture, Forestry Hunting and Fishing	Manufacturing	Community, Social and Personal Services	Others
Self-Employed	62.3	24.5	7.5	5.8
Unpaid family helpers	94.0	3.4	0.9	1.7
Employees	25.4	27.5	43.3	3.8
Employers	0.0	49.0	51.0	0.0

Source: Labour Force Survey, GoP

Employment Pattern by Level of Education

Table 3.15 is about the educational attainment of employed labor force in Pakistan. Altogether, five categories of level of education are reported here. These include illiterate, below primary (no formal education), primary, matriculation, intermediate, and graduate and above.

According to Table 3.15, progress occurred in the educational attainment across all levels of education both for females and males during 1990-91 to 2007-08. However, gender gaps in the level of educational attainment are evident. The illiteracy level among employed female is much higher at 76 percent in 2007-08. The proportion of employed males having primary and above education level is 59 percent; whereas, it is 22 percent for employed female. Only 4 percent of employed female compared to 7 percent of employed male have acquired education up to degree level.

Though, education attainment among employed women has improved, the process of attaining education remained very slow during a period of 18 years. In rural areas, more than 80 percent and in urban areas, more than 40 percent of the employed females are illiterate. Only 20 percent of the employed females in urban areas have education up to degree level (Table 3.16).

Table 3.17 gives the educational level of female in sectors where their employment is concentrated. Of the total illiterate employed female, 86 percent are employed in agriculture, forestry, and fishing. Those who are educated up to primary level or below primary level majority are engaged in agriculture sector followed by manufacturing sector. While, those who are educated up to intermediate level and graduate and above and have a professional degree are associated with community, social and personal services.

Table 3.18 gives the educational level of female, by employment status. It illustrates that 72 percent of the illiterate females work as unpaid family helpers. In addition, more than half of females who are educated either up to primary or below primary and more than one-third of females who are educated up to matriculation also work as unpaid family helpers. Three-fifth of females who are educated up to matriculation and more than three-fourth who are educated up to intermediate or graduate and above work as paid employees.

Table 3.15
Distribution of Employed by Level of Educational Attainment

	1990-91	1994-95	1999-00	2003-04	2007-08
MALE					
Illiterate	55.04	52.57	48.20	40.66	37.25
Below Primary	5.63	4.67	2.95	6.19	3.34
Primary	23.51	24.14	27.34	28.83	31.27
Matriculation	9.36	10.76	12.26	13.51	15.35
Intermediate	3.24	3.99	4.39	4.83	6.00
Degree	3.21	3.87	4.87	5.98	6.79
FEMALE					
Illiterate	82.55	80.09	82.41	73.46	76.37
Below Primary	2.19	1.90	1.07	2.42	1.64
Primary	6.82	6.17	6.33	10.44	11.09
Matriculation	4.31	5.22	4.48	5.89	4.28
Intermediate	1.57	2.55	2.19	2.66	2.35
Degree	2.56	4.07	3.52	5.13	4.27

Source: Labour Force Survey, GoP

Table 3.16
Education level of Employed Female by Region

(Percent)

	RURAL			URBAN		
	1990-91	1999-00	2007-08	1990-91	1999-00	2007-08
illiterate	89.79	90.88	82.24	52.44	41.40	40.72
Below Primary	1.79	0.76	1.60	3.87	2.56	1.90
Primary	4.04	3.31	7.49	6.49	8.07	10.90
Matriculation	4.12	4.71	6.93	25.09	29.04	26.92
Degree	0.26	0.33	1.74	12.10	18.93	19.57
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Labour Force Survey, GoP

Table 3.17
Level of Education of Female by Employment Sector 2007-08

(% Share)

	Agriculture, Forestry Hunting and Fishing	Manufacturing	Community, Social and Personal Services	Others
Illiterate	85.9	8.8	3.6	1.7
Below primary	65.4	23.0	7.5	4.1
Primary	55.5	30.7	8.5	5.3
Matriculation	18.7	22.0	51.1	8.3
Intermediate	6.4	11.6	75.2	6.8
Graduate and Above	1.3	3.3	88.4	7.0
Professional Graduate	3.9	9.7	74.8	11.7

Source: Labour Force Survey, GoP

Table 3.18
Level of Education of Female by Status 2007-08

(% Share)

	Employer	Self	Unpaid Family Helpers	Employees
Illiterate	-	13.66	71.49	14.84
Below primary	-	20.83	52.75	26.42
Primary	0.09	17.66	54.95	27.30
Matriculation	-	13.76	25.99	60.25
Intermediate	0.14	11.80	11.18	76.88
Graduate and Above	1.43	21.21	2.47	74.89
Professional Graduate	0.25	6.37	5.46	87.92

Source: Labour Force Survey, GoP

Trade Liberalization and Female Labour Force Participation

Trade liberalization, economic growth as well as social characteristics of the labour force impact upon their participation rate. An empirical analysis is carried out by considering trade liberalization, economic growth and other relevant determinants of female labour force participation rate in Pakistan by employing co-integration technique for the period 1972-73 to 2007-08.

Meyer (2006) estimated the impact of trade liberalization and risk associated with participation in the global trading system on female labour force participation in a cross-section framework by considering a period from 1971 to 1995. The study covered 120 nations, classified into five regions. She addresses the issue whether or not trade liberalization and the risks associated with trade openness provide women with increased access to resources through their integration into national labour markets Her analysis suggests that while trade liberalization facilitates women in attaining paid employment, it declines their representation in national labour force (i.e., in unpaid employment). Given these conflicting views, she proposes that reforms based on trade liberalization do not necessarily improve women's access to economic resources. She also points out that higher foreign investment in the form of transnational corporations plays a positive role in enhancing women's share in labour market; trade openness has a larger effect in middle-income countries compared to low-income and advanced industrialized countries; and greater volatility and exposure to shocks in the labour market as a result of trade openness exerts an adverse impact on women's employment in the formal labour market in semi-peripheral countries.

Nordas (2003), estimated the impact of changes in export and import value on women's share in employment and women's wages relative to men in live developing countries. He pointed out that trade liberalization can provide employment opportunities for women in labour-rich developing countries, where there is a growth in exports leading to increase the share of female employment. He also argues that though there exists a tendency to employ men in import competing industries, they do not remove women from

employment due to increased import competition. On the contrary, there are concerns that women's gains from trade liberalization tend to decline as countries move towards higher value added industries and more technologically sophisticated production, since these industries require highly skilled and educated labour force.

Studies also shows that export promotion zones (EPZs) have largely contributed towards women employment in export-oriented manufacturing firms in developing countries; where they are better paid than in domestic industries. Evidence and studies indicate that in many EPZs in Asia, young single women are employed at least in the initial stage (Baden and Joekes, 1993). Moreover, the growth of export-oriented manufacturing has benefited women by creating jobs for them (both absolutely and relative to men) where they often earn wages that are higher than those working in other sectors. However, these gains happened to be only short term [Kabeer (1995) and Joekes (1995)].

Wood (1991) states, "increased manufactured exports from the South are very strongly associated with the feminisation of the industrial labour force." In a study on formal sector employment, he shows a strong relation between increased exports and increased female employment in manufacturing; particularly in Mauritius, Tunisia, Sri Lanka, Malaysia and the four East Asian tigers.

In Pakistan, there is lack of empirical research that develops linkages between gender and trade liberalization indicators in order to estimate a relationship among them. Khattak (2001) probed the effects of SAP on women employment in Pakistan and hence on their empowerment and lives by conducting a survey of altogether 630 women workers in Karachi, Lahore, Peshawar and Quetta. The findings indicated that sexual division of labour by and large did not change women's lives and they were more burdened with work than men in the event of worsening economic conditions since they had to carry out both paid work and unpaid domestic work. Women had little control over resources - even that generated through their work.

Siegmann (2005) evaluated the likely effects of the termination of the quota regime on the male/female composition of the workforce in textile and clothing industry of Pakistan by conducting ten semi-standardized interviews with textile/clothing industry managers in Faisalabad in April 2004. The findings indicated that it was likely that Pakistan might lose out in the market for clothing and may then specialize in the market of textiles and yarn, which will affect the employment of women workers greatly as majority of women are engaged in stitching. Women workers would also lose out as they might have difficulty in finding alternate jobs as a result of the fact that they were concentrated only in few sectors of the economy.

Ahmed and Bukhari (2007) explored the impact of trade liberalization on gender inequalities in Pakistan. Their regression analysis illustrates that trade liberalization has significantly played a part in reducing overall gender inequality, specifically in the labour market. They indicated that export-oriented industries, particularly the textile industry contributed in absorbing a higher proportion of female workers.

Siddiqui (2009) investigated gender dimensions of the effects of trade liberalization in Pakistan by using Computable General Equilibrium (CGE) model. She used reduction in effective rate of protection (ERP) as a proxy of trade liberalization and simulated its gendered impacts on various indicators including income poverty, time poverty, capability poverty, and welfare. Her simulation results show that revenue-neutral trade liberalization in Pakistan increased women employment in unskilled jobs and increased women's real wage income more than men's for all types of labour. The study finds that the division of labour is biased against women, as Pakistan's trade liberalization adversely affected women in relatively poor households by increasing their workload, deteriorating capabilities, and increasing relative income poverty. However, the effects remained gender neutral or favoured women in the richest group of households.

Empirical Model

This section establishes the empirical model used to determine the impact of trade liberalization on female labour force participation. Here, we discuss the dependent variable, both external and internal determinants of female labour force participation and empirical methodology. The rationale for including these determinants in the model is illustrated below.

Dependent variable

The dependent variable in our model is female labour force participation rate. The labour force for the analysis has been defined as population comprising of persons with age 15 years and above.

External determinants

The magnitude of trade openness or the participation of a country in the global trading system is often measured by the sum of the value of its merchandise exports and imports as percent of the value of GDP. This variable tests the effect of the trade liberalization or openness of the economy on female labour force participation. The sign of this variable can be positive or negative. A positive sign implies that female labour force participation increases with the increase in openness and vice versa.

$$OPEN = \frac{Exports + Imports}{GDP}$$

Commodity concentration in export sector is also expected to affect employment opportunities. Lack of diversification in export commodities leads to instability in the export earnings as any downward fluctuation in the export causes a decline in the entire export earnings. Alternatively, a country exports many different commodities, shifts in demand for some commodities can be compensated by possible counter shifts in demand for other commodities. Studies have pointed out that over-specialisation in trade or high degree of

commodity concentration lowers women share in employment [Clark et al. (1991) and Miler (1999)]. The Gini-Hirschman Index measures the commodity concentration of Pakistan's exports. It is defined as

$$G_t = \sqrt{\sum_{i=1}^{n} (X_{it} / X_t)^2}$$

where, xi is the value of a country's exports in commodity i while x is the value of total trade. A higher value of the index implies that exports are limited to only few commodities and vice versa.

Internal Determinants

The theory suggests that levels of economic development influence women's participation in the labour force in developing countries. High level of modernity, as result of economic development, is associated with increased demand for labour and with social acceptance of women's employment and education. Thus, economic development evaluated in terms of economic growth positively affects the female participation in the labour force. In Pakistan, women are largely engaged in commodity producing sectors (agriculture and manufacturing sectors). Therefore, the GDP of commodity producing sectors is taken here instead of overall GDP.

Family structure is also considered as an important indicator that has an effect on female participation in economic activity. Given that women perform the role of primary caretakers of children around the world, it is likely that they prefer to stay home and remain out of labour force particularly, during the period when children are young. This indicator is captured by taking the ratio of number of children in the age group 0-9 and the number of women in the age group 20-44. This measure captures childrearing duties more directly than the crude birth rate or the total fertility rate and also captures the current size of the population needing care [Pampel and Tanaka (1986), (Semyonov, 1980), Meyer (2006)].

To take into account the supply of female per male labour force, sex ratio of working-age population is also incorporated. This is computed by dividing the females of age 25-64 years by the number of males of the same age.

An important factor that stimulates a woman to participate in the labour force is their level of educational attainment. Increase in the level of education of women is assumed to cause the participation rate positively. Level of education is captured through female literacy rate.

Overseas migration of labour force creates shortage of labour force in the domestic market. As a consequence, it can be assumed that the availability of job induces women to take advantage from this opportunity and hence positively affects women participation. Overseas migration as a percent of total population is taken to capture this effect.

Data sources

The data for this analysis is obtained from various issues of Labour Force Survey, Government of Pakistan and Economic Survey, Government of Pakistan.

Empirical Methodology

Based on the theoretical background, an empirical analysis is carried out to investigate the impact of above mentioned variables on female labour force participation rate in Pakistan. The following functional form for female labour force participation is estimated for the period 1972-73 to 2007-08 by using Johansen-Juselius (1990) co-integration technique.

$$LFPF = f(OPEN, CC, YCOM, MFWR, CWR, LRF, MIG)$$

Where,

LFPF = Labour force participation rate female
OPEN = Openness
CC = Commodity concentration
YCOM = GDP of commodity producing sector
MFWR = Ratio of female working age population to male working age population
CWR = Child to women ratio
LRF = Literacy rate of females
MIG = Ratio of overseas labour force migration and population

Results

This section, discusses the data and presents some preliminary descriptive analysis before moving on to empirical investigation.

Descriptive Analysis

Table 3.19 gives summary statistics of the variables used in the analysis with Chart 3.6 providing plots of these variables.

Table 3.19
Statistics of Time Series

Variables	Mean	Standard Deviation
Labour force participation rate female	13.54	3.83
Openness	28.86	3.10
Commodity Concentration	51.58	13.80
GDP of commodity producing sector	50.14	2.14
Ratio of female to male working age population	15.29	4.85
Child to women ratio	2.94	0.19
Literacy rate of females	24.72	10.07
Ration of overseas labour force migration and population	0.0011	0.0004

Chart 3.6
Plot of Variables
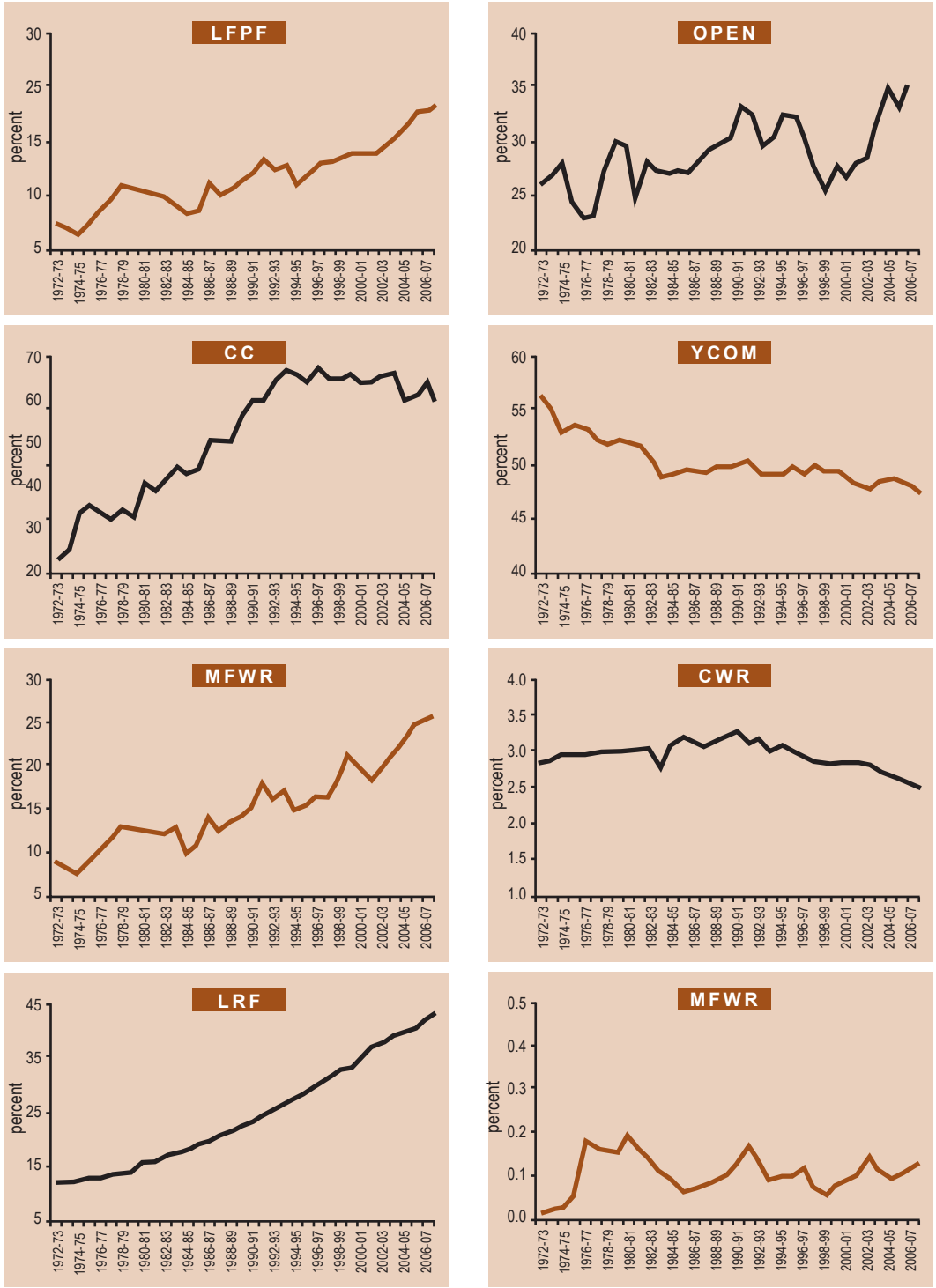
Female labour force participation rate depicts an obvious increasing trend with some wavering movement during mid-1980s to mid-1990s. It increased from a very low base of 9 percent in 1972-73 to 22 percent in 2007-08 and remained on average 13.5 percent with a standard deviation of 3.8 percentage points. Apparently, this indicates that the overall gender gap in labour force participation rates is declining. However, 78 percent of total female population (15 years and above) remains out of the labour market.

There have been several episodes of declining and increasing trends in the variable capturing openness (trade as a percentage of GDP). On average, the share of trade in GDP has been about 29 percent over the sample period with a standard deviation of 3 percentage points. Smoothing through the oscillations, there apparently is an increasing trend in the openness of Pakistan's economy; indicated by the fact that this share has improved from 26 percent in 1972-73 to 36 percent in 2007-08.

However, Commodity concentration of Pakistan's exports increased over the sample period with a mean of about 52 percent and a standard deviation of 14 percentage points. The increase took place during 1972-73 to 1996-97, rising form a low of 23 percent to high of 67 percent. Later, it declined and remained around around 60 percent. The decline in commodity concentration occurred when the quota regime under Multi Fibre Agreement (MFA) ended in 2004 and Pakistan's textile exports started declining. Pakistan then took some initiative to start diversifying its exports.

The real output of commodity producing sector as percent of GDP shows a declining trend. Prior to 1983, it declined sharply but the average share in GDP was relatively high (53 percent per annum). However, during the post-1983 period, it remained somewhat stable, but the average share was lower (49 percent). Over the full sample period commodity producing sector as percent of GDP averaged 50 percent with a standard deviation of 2 percentage points.

Sex ratio, which explains the ratio of working-age population of female to working-age population of male, enhanced over the sample period although with some volatility. It displays that female working age population as a percent of male working age population was only about 9 percent in 1972-73 and reached 25 percent in 2007-08.

Literacy rate of female appears to be the only variable that displays a clear continuous increasing trend with a mean of roughly 25 percent and a standard deviation of 10 percentage points.

The variable child-women ratio displays a rather horizontal line with little jerks having a mean of 3 and a much lower standard deviation of 0.19. A notable turn down is evident in this variable after 1995-96, when it shows a steadily declining trend with the ratio reaching 2.4 in 2007-08.

Migration, though small in numbers shows large oscillations. It varies with international shocks and stages of development' of different countries that create demand for skilled and unskilled labour.

Empirical Results

Order of Integration or Stationarity of the Variables

Prior to estimating the equation, it is essential to conduct the unit root test to check the stationary of the time series. For this is employed the Augmented Dickey Fuller (ADF) test and Phillips-Perron (PP) test. In doing this test, optimal lag length is chosen using Schwarz Info statistical criterion. All explanatory variables are taken in log form. Table 3.20 presents the results of the unit root tests. When applied to each time series the null hypothesis of unit root is considered against the alternative hypothesis of no unit root or the time series is stationary.

The results reveal that all the variables have a unit root (non-stationary) in their log-level, while the null hypothesis of unit roots can be rejected when the variables are considered in their first differences (see Table 3.20). This indicates that all variables have first order of integration or I (1).

Interpretation and Explanation of Results

The results reported in Table 3.21 show that for Likelihood Ratio, the null hypotheses R = 0 (no co-integrating relationship), R = 1 and R = 2 can be rejected in favor of its alternative R = 3. This indicates that there exist at least three co-integrating vector and confirms that a co-integrating relationship exists among the concerned variables in the model. Table 3.21 also shows that for Maximum Eigen values there exists at least three co-integrating vector, which further confirms the existence of co-integrating relationship among the variables. This indicates that there prevails a co-integration or a long run association between female labour force participation rate and its determinants (taken in this model) in the case of Pakistan.

Table 3.22 gives the estimation results of the LFPF equation on annual data for the period 1972-73 to 2007-08. It reports the estimated coefficients and their t-statistic. Since all the variables are in logarithmic form, the estimated coefficients give the elasticity of the respective variable.

The coefficient of OPEN is positive and significant indicating that openness or trade liberalization contributed towards the increase in female participation rate in the labour force. However, its impact remained relatively inelastic in nature. If openness increases by one percent, increase in female participation rate is only 0.22 percent. The coefficient of CC is negative and significant showing an inverse relationship between commodity concentration and female labour force participation. In terms of percentage change, a one percent increase in commodity concentration decreases the female participation by 0.39 percent.

There are certain specific economic sectors where females are largely employed. For example, agricultural sector absorbs the bulk of the female work force followed by manufacturing (garment and surgical industries) and community, socia\l and personal service (nursing and teaching). According to labour force survey, 66 percent of the total employed females were associated with agriculture and forestry, 13 percent with

Table 3.20
Results of Unit Root Test - 1973-2008

	ADF Test Statistic		Philips-Perron Test Statistic	
	Level	1st Difference	Level	1st Difference
Log(LFPF)	-0.696	-5.256*	-0.717	-5.241*
Log(OPEN)	-1.781	-5.496*	-1.697	-7.722*
Log(CC)	-1.727	-6.279*	-1.517	-7.484*
Log(YCOM)	-2.494	-5.972*	2.880	-6.127*
Log(MFWR)	-0.800	-6.226*	-0.645	-6.355*
Log(CWR)	-0.103	-6.767*	-0.285	-6.779*
Log(MIG)	-1.349	-3.994*	-3.243	-4.009*
Log(LRF)	-0.080	-7.451*	-0.046	-7.450*

Note: * represents 1% level of significance

Table 3.21
Johansen First Information Maximum Likelihood Test for Co-Integration

Hypotheses	Likelihood Ratio	5 percent Critical	Inst- Values	Maximum Eigen Values	5 percent Critical	Inst- Values
R = 0	269.30	159.53	0.00	96.90	52.36	0.00
R 1	172.40	125.62	0.00	70.14	46.23	0.00
R 2	102.26	95.75	0.02	41.53	40.08	0.09
R 3	64.73	69.82	0.12	29.32	33.88	0.16

Table 3.22
Results of Co-integration - 1972-2008
Dependent Variable - Female labour force participation rate

Independent Variable	Log(OPEN)	log(CC)	log(YCOM)	log(FMWR)	log(CWR)	log(LRF)	log(MIG)
Coefficient	0.22	-0.39	0.44	0.68	0.34	0.25	0.06
t-Statistic	5.98*	-15.39*	8.99*	6.75*	1.15	17.47*	6.17*

Note: * represents 1% level of significance

manufacturing and 16 percent with community and social services in 1990-91. These percentages changed alarmingly to 74 percent, 12 percent and 12 percent, respectively in 2007-08.

In agriculture, majority of the women (over 50 percent) are engaged in livestock since the sector is well integrated into the family economy and which efficiently utilizes family labour. Women are involved in almost all aspects of animal health, maintenance, rearing and production. This is followed by crop farming where females are mostly involved in support activities like, weeding, grass cutting, cotton picking, stick collection, separation of seeds from fibre, and so on. Women are also either self-employed or employees who are involved in some businesses and in other off-farm activities like embroidery and tailoring, carpet making, teaching, or are health workers and government employees [UNDP (2007-08) and SPDC (2009)].

In manufacturing sector, women are largely associated with textile, wearing apparel and leather industries. It needs to be mentioned that within textile and leather industry majority of women are associated with garments sector. In sectors like yarn and clothing men are employed as the production is mechanised in nature. These machines require specific skills to run, which women usually do not attain.

Moreover, Pakistan performs well in low value added textile items like yarn and cloth, while in high value added items garment its performance is not as impressive as that of its competitors like Bangladesh and India. For example, each of these two countries continue to have over 3 percent share in world clothing exports; whereas, Pakistan has only one percent share. Unfortunately, significant efforts have not been made to expand the garment sector where women could have reaped the benefits of trade liberalization.

Fontana (2004) pointed out, "Since the establishment of the garment factories in the 1980s, considerable changes in female labour force participation have taken place in Bangladesh with export sectors employing more women. Women have gained in terms of higher market employment and wages. Importantly, it is not only their absolute wages that increase, but also their wages relative to men. Whether women benefit from a country's greater exposure to trade depends on which factors of production experience a rise in demand, and what are the prevailing gender norms regulating ownership of the factors that stand to gain."

Seigmann (2008), while discussing the impact of removal of textile quotas on female employment in Pakistan, states "in both the sectors that employ the most women-agriculture and forestry, fishing, and hunting-and in the manufacturing sector, labour-intensive subsectors (including garment and soccer-ball manufacturing as well as cotton picking) have been stimulated through trade, and women have been recruited on a preferential basis. This has provided women with employment and, thus, cash income in an environment that discourages women's participation in the paid labour market."

Thus, continued concentration of female employment in specific sectors and inadequate measures to diversify exports, which would have created employment opportunities for women in other sectors, did not allow translating the effect of openness on women participation in the labour force.

Pakistan exports consists of textiles and wearing apparel (60 percent) such as raw cotton, cotton yarn, cotton cloth, bed wear, knitwear and garments; rice (11 percent); leather and leather manufactures (5 percent). Commodity concentration act as a risk to exports. It is regarded as one of the major cause for instability in export. If any external or internal shock affects exports then commodity concentration exerts a negative pressure on considerable part of production and hence on employment. Since women are not only engaged in certain specific sector, but also are less skilled as compared to men, they are more vulnerable to lose their jobs compared to men. Thus, commodity concentration negatively affects female employment and hence the participation rate.

The positive and significant coefficient of YCOM implies that an increase in the output of commodity producing sector (agricultural and manufacturing) increases the female

participation in the labour force. In terms of elasticity a one percent increase in the output of commodity producing sector brings 0.44 percent increase in the female labour force participation rate. It is apparent that large part of Pakistan's export depends on production of agriculture and manufacturing. The two sectors are of prime importance not only for Pakistan's exports but also for bringing an increase in female participation rate. Thus, a combination of openness and growth in agriculture and manufacturing output would possibly have a positive affect on female participation. Certainly, the share of services sector has increased in Pakistan, but opportunities for female employment has not increased accordingly.

The coefficient of MFWR is positive and statistically significant, which shows high association between female working age population and their participation rate. It is included to control for the supply of female working age population in relation to male working age population. Increase in working age female population generates a positive impact on female participation rate.

Child-women ratio is found to have a positive relationship with female participation in the labour force, but it is not significant. To further understand its influence, an analysis was done by drawing graphs considering female labour force participation rate and fertility age using data from LFS. Chart 3.7 shows the absence of decline in participation rate during fertility period. Moreover, no visible decline is noticed in child-bearing age, which implies that women are compelled to undertake work along with domestic work and child-bearing, especially in rural areas.

Literacy rate has a positive and significant influence on female participation in the labour force, but it holds a weak elasticity of 0.25. This indicates that a one percent increase in the number of literate women brings only 0.25 percent increase in participation rate. Findings are similar to that of SPDC (2009) which states, "An extremely weak link that exists between education and employment in Pakistan. Women, though, are entering higher educational institutions it does not ensure their subsequent entry into the labour force. Neither, it has helped in addressing the restrictions on labour force participation and the gender discrimination that are prevalent in the labour market."

Labour force survey 2007-08 shows that illiteracy level among the female labour force is higher (75 percent) compared to that of male labour force (37 percent). Further, the Education Census (2005) gives striking figures where females have made progress particularly at the degree level and are approaching to one half of the total enrolment. In spite of the progress, their share in labour force is only 19 percent.

The positively significant coefficient of MIG indicates that overseas migration has created space for employment of females at home. For instance, in 1970s and 1980s, development in the middle east provided opportunities to unskilled males from rural areas of Pakistan. This provided a window of opportunities to rural women to work in place of men.

Chart 3.7
Fertility Age and Female Labour Force Participation Rate
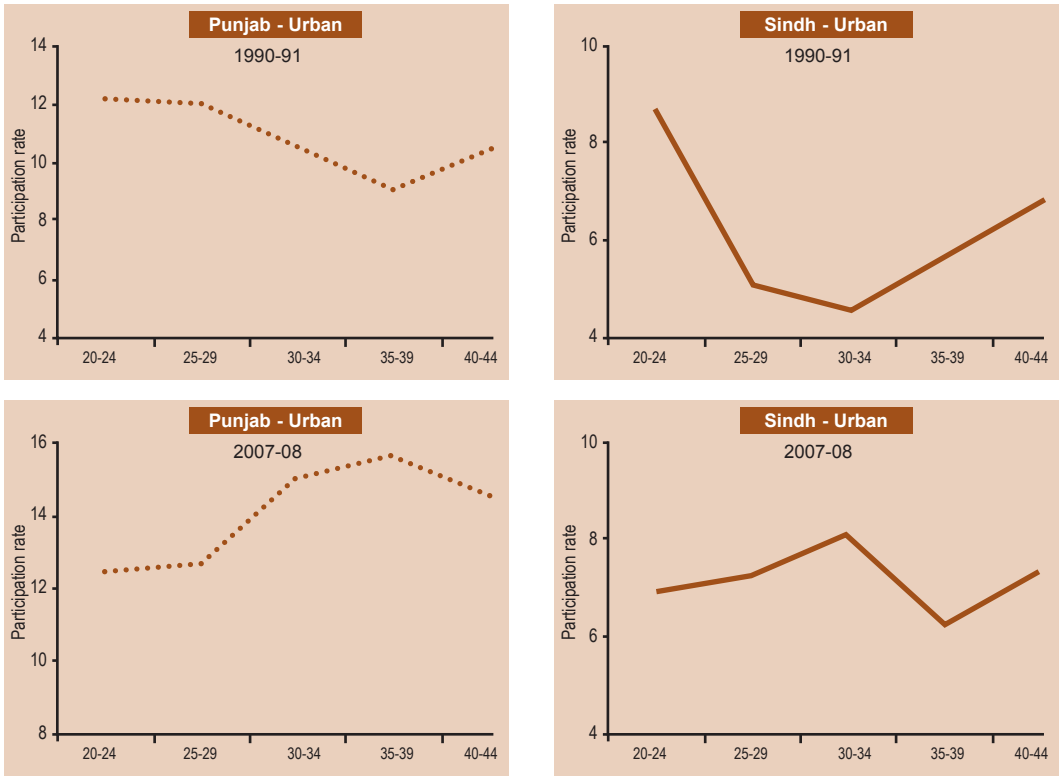
Source: Labour Force Survey, GoP

Key Findings and Policy Implications

Implications of trade liberalization on women is a complex issue and has multiple dimensions. In line with the objectives of the study an attempt is made to analyze the implications of openness of trade on women labour force participation rate. The research report examines the change in the pattern of GDP, exports and imports to see the structure of production in Pakistan, alongwith a detailed analysis of female and male employment structure.

Impact of Trade Liberalization on the Structure of Economy

The findings indicate that during the period 1972-73 to 2007-08 the composition of GDP changed significantly. The share of agriculture sector declined and that of services sector increased considerably while the share of manufacturing sector remaining the same to some extent. Importantly, the reduction in tariffs made Pakistan dependent on imported raw materials and capital goods, which have been continuously increasing, while exports

remained concentrated in textiles and related products. Any effort towards diversification of exports is not visible.

Nature and characteristics of job opportunities emerged for women and men during trade liberalization

Considering female and male employment, the analysis shows that female participation increased remarkably over time. Three sectors where females are largely present are agriculture, manufacturing and community and social services. Agriculture sector is found to be a major sector of employment both for female and male. However, the concentration of female in agriculture has increased over time, while that of male has declined. In agriculture and manufacturing more than 90 percent females are associated with low paid occupations. Among employed women majority have been in the category of unpaid family helpers. The share of unpaid helpers in total employed women has increased alarmingly over time. Among unpaid family helpers, 94 percent are associated with agriculture sector. The illiteracy level among employed female is much higher compared to employed males. Only 4 percent of employed females as against 7 percent of employed males have acquired education up to degree level. Among those females who are either illiterate or educated up to primary level or below are associated with agriculture sector. This confirms that in agriculture sector females are largely illiterate and majority of these illiterate females are unpaid family helpers. Among those who acquire a degree, majority are engaged in community, social and personal services. In manufacturing sector, females are concentrated in export-oriented sectors like textile, wearing apparel and leather manufacturing. They are educated up to matriculation or below matriculation level of education and are employed in low-paid jobs. Majority of the illiterate females and those who are educated primary or below primary level of education are unpaid family helpers.

Impact of trade liberalization and other socio-economic variables on female labour force participation

The analysis was carried out to assess the effect of trade liberalization on female labour force participation rate in Pakistan along with its other relevant determinants shows a positive effect of trade liberalization on female labour force participation, but its tendency to influence female emplyment is weak as apparent from the elasticity of 0.22 percent. Commodity concentration has a statistically significant negative relationship with female participation rate. Since females are largely engaged with the export sector, any risk to exports hurts their participation in the labour force. Output of commodity producing sector is found to have significant impact on female labour force participation with elasticity of 0.44 percent. Moreover, the link between education and employment is also extremely weak. Entrance of women into higher educational institutions does not ensure their subsequent entry into the labour force.

Policy Implications

Based on the findings, following are some of the recommendations for integrating a gender perspective in future trade and employment policies in order to make them gender sensitive and to increase female labour force participation and employment. The policy recommendations made would strengthen female labour force participation and would ensure the benefits of trade liberalization policies to women of Pakistan.

- Output of agriculture and manufacturing sectors have a considerable impact on female labour force participation. Government, therefore, needs to focus on the process of economic revival which is of paramount importance to improve the rate of participation of women in productive employment. Given the concentration of women in rural activities, policies for increasing agricultural growth, especially in livestock and other female labour-intensive activities, are important in sustaining the contribution of women to the rural economy.

- In addition, industrial revival policies need to be put in place if the continuing process of displacement of women from this sector is to be arrested. Supporting the growth of exports of items like garments, leather, jewellery, sports goods, etc., where women play an important role, has to be a key component of the policy for raising industrial production.

- Majority of employed women in agriculture are unpaid family helpers. In this regard, gender bias in land ownership is one of the causes, which limits their capacity to obtain financial benefits of their labour.

- Textiles and its value added items have a greater share in exports and relatively higher female employment. Therefore, promotion of export of these commodities are likely to improve women employment in paid labour force. The export of these commodities can be promoted through greater access to international markets. Bilateral agreements with European countries and US to allow greater access to their markets would also have a positive affect on women employment. This can be supplemented with other policies like enhancing competitiveness of Pakistani exports both in terms of price and quality.

- One of the reasons for low gains accruing to women from trade liberalization is inadequate presence of multinational firms and international brands in value added textile and leather items. The experience of other developing countries suggests that these firms have played an instrumental role in promoting women employment.

- Female labour force is concentrated in export-led employment which is often accompanied by greater insecurity of women jobs in comparison to men. To address the nature of vulnerability and make women more competitive, it is important to ensure women, education for particularly in view of rapidly changing technological requirements for labour. Equally important for the government is to

identify policies and initiate measures that would help address the problems of labour market insecurity, low pay, and gender discrimination in informal employment.

● Development of rural infrastructure particularly provision of electricity and construction of farm-to-market roads will help rural women to get greater access to information—a pre-requisite for any real gains of trade liberalization.

● It is evident from international experience/s that cottage and small scale industries have played a crucial role in promotion of exports and women employment. These industries provide flexible working hours, which help women get engaged in productive activities in addition to their reproductive role. This also enhances domestic production and provide exportable surplus. SPDC (2008) shows that high cost of doing business due to large number of indirect taxes including withholding taxes on electricity and telephone along with load-shedding of electricity contribute negatively in promotion of cottage industries in Pakistan. The large scale manufacturing firms involved in exports have taxation and legal experts helping them in getting rebates as exports are zero rated, but cottage industries cannot exercise this due to less understanding of taxation knowledge. The government needs to take appropriate measures to enhance the development of cottage and small scale industries.

● Majority of female entrepreneur face financial problems particularly in the beginning stage of their business and in small cities. Moreover, there are a number of socio-economic factors that hinder them from obtaining loans including:

- Insufficient collateral or non-availability of collateral; and
- Higher mark-up
- Lack of sufficient knowledge about the bank and banking products;
- Lack of technical expertise about financial system;
- Complicated documentation procedures or tedious paper work for obtaining loan;
- Slow and longer process of approval of loans;
- Multiple visits to the bank in the presence of mobility constraints;

These impediments need to be addressed to encourage small businesses run by women entrepreneurs. Microcredit needs to be mainstreamed and commercial banks be given incentives for providing microcredit to women as the cost of lending for microcredit would be higher for these banks. For example, a tax credit of 2 percent of the increase in volume of microcredit can be offered to the banking system. So far, the commercial banks have treated the provision of microfinance services as a 'social obligation' that is cross-subsidized by their commercial operations. The lack of collateral among potential clients and high operational costs make microfinance an unattractive prospect for them. Presently, women

and the poor are unable to access commercial bank services very easily, and the provision of microcredit by NGOs is also very limited given the demand for financial services. Hence, incentives need to be provided to expand the scale of microfinance services and for the establishment of MFIs. The SBP has facilitated this by relaxing the regulatory regime which governs microfinance activities, as opposed to the strict regulations which guide conventional banking operations.

- Many women choose to stay out of the labour force or opt for less demanding occupations than men because of double burden. They prefer occupations which are compatible with the domestic responsibilities of women. To encourage women employment, it would be useful if an employer were to allow flexible working hours and work arrangements. This would bring more women into the work force who previously opted out of employment.

- In addition, mobility restriction also constrain women particiaption in the labour force. Therefore, employment of women could be facilitated by provision of child care facilities at factories and subsidised transport arrangements. Appropriate provisions in the form of accelerated depreciation, allowances, or tax credit be provided to employers based on the costs of the provision of such facilities.

To conclude, one can say that since the labour market in Pakistan discriminates against women, there is a need for the formulation and implementation of comprehensive policy measures that address discrimination against women in labour markets. Elimination of all types of discrimination is essential to encourage more women in paid labour force, which consequently would help produce exportable surplus.

NOTES:

1. Factor market implies a market where exchange of land, labour and capital takes place. Labour includes: illiterate, unskilled, skilled and educated persons and capital includes: monetary (investment) and physical (machinery and equipment) capital.

2. Distortions in factor markets implies factors preventing the efficient allocation of resources like inappropriate monetary and fiscal policies, inefficiency in different sectors (agriculture, industry and services), rigid corporate governance, issue of non-performing assets, savings-investment imbalance, imperfect competition, factor immobility and so on. These factors inhibit economic growth and lead the economy to produce less than its potential output.

3. See Hecksher- Ohlin and Stolper-Samuelson trade theory.

4. The benefits of trade liberalization vary from country to country and depend on the socio-economic characteristics of country. This section focuses on examining the structure of economy rather than investigating the impact of trade liberalization on economic growth.

5. See SPDC (2006), Zaidi (2005), Malik et al (1994), and Ahmed and Amjad (1984).

6. See section 3.4.3.

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4 Gender Dimensions of Rural Non-farm Employment

Crop agricultue is the largest source of income for rural families. However, non-farm sources of income are also significant and especially for the rural poor on account of the seasonal nature of agricultural employment. The sector provides employment, income diversification, and market linkages for agriculture, and thus has immense potential to contribute to growth, employment generation and poverty alleviation.

Generally, non-farm[1] refers to those rural economic activities that are not primarily related to agriculture, livestock, forestry or fisheries. Hence, the Rural Non-Farm Economy (RNFE) may be defined as comprising all those activities which generate income for rural households either through waged work or self-employment (Davis, 2004) and houses a highly heterogeneous collection of trading, agro-processing, manufacturing, commercial and service activities. The scale of activity varies enormously, from part-time self-employment in household-based cottage industries to large-scale agro-processing and warehousing facilities. Often highly seasonal, rural non-farm activity fluctuates with the availability of agricultural raw materials and changes in rhythm with household labor and financial flows between farm and non-farm activities. Moreover, across diverse economic and ecological settings, the composition of non-farm activities differs considerably due to widely variable natural resources, labor supply, location, history, traditions, and institutional and infrastructure endowments.

Despite the importance of rural non-farm sector, governments have failed ot accored it priority in terms of policy as welll as funding. Moreover, the sector is relatively under-researched regarding its role in the broader development process. Adequate assessment of size, composition and structure of activities of this segment of the economy has not been made. Data limitation partly explains the neglect of research in this important sector. One area in the non-farm sector literature that is even more under-investigated in Pakistan is the gender dimension of non-farm employment and non-farm activities.

This research evaluates gender differences in terms of patterns, determinants and the extent of participation in the rural non-farm sector in diverse economic and ecological settings, using a primary household survey of about 1200 rural households in the four provinces of Pakistan. These households were randomly selected from different agro-climatic and cropping zones and were enumerated using a comprehensive set of living standard measurement modules[2]. Specifically, gender role is investigated in the non-farm rural sector by evaluating household income, employment, time-use pattern, and other aspects of human and social development.

The Rural Non-Farm Sector in Pakistan

Pakistan Labor Force Survey (LFS) provides information regarding non-farm employment at national and provincial levels. According to LFS (2010-11), about 61 percent of the rural labor force of Pakistan is engaged in agricultural activities, while 39 percent of the employed rural population are reported working in the non-agriculture sector (Table 4.1). The table also shows that about 14 percent of female employed labor force is engaged in activities other than agriculture, of which 8 percent is working in the manufacturing sector and about 5 percent working in education and community services sectors. On the contrary, about 48 percent rural male employed labor force is engaged in non-agriculture activities.

Trends in rural non-farm workforce (10 years and above) participation during 2001 and 2011 are furnished in Table 4.2 and Chart 4.1. Evidence of declining trends of male participation in non-farm activities is shown in the table. Barring the province of Khyber Pakhtunkhwa, all provinces are showing a declining trend in non-farm work participation. In terms of magnitude. A decline of about 20 percent is found in Balochistan and Sindh, and 8 percent in Punjab during the period 2001-2011. The province of Khyber Pakhtunkhwa is showing a rise of about 11 percent in the participation rate. On the contrary, female participation in non-farm work is showing an upward trend in Punjab, Sindh and Khyber Pakhtunkhwa. The highest growth is observed in Khyber Pakhtunkhwa, where female non-farm workforce has been almost doubled during the period 2001-2011. The assessment of the distinct trend in Khyber Pakhtunkhwa is an important research area to explore the incentives and opportunities to promote non-farm work activities, especially for women.

Major Survey Findings

The rural household survey[3] has been carried out to estimate the extent and nature of participation in non-farm activities, participation of child labor, and wage differentials across gender. Further, an attempt is also made to depict the impact of non-farm work on women's (wife) economic, social and other empowerments. Respondents' perceptions with respect to constraints to participate in non-farm income generation activities are also collated in this section.

Participation in Rural Non-farm Income Generation Activities

Rural households decide to participate in rural non-farm sector driven by a set of 'Pull' and 'Push' factors. Pull factors include better returns in the non-farm sector relative to the farm sector and can typically be found in dynamic agricultural regions (Haggblade, Hazell and Reardon 2005).

In dynamic, modern or commercialized agriculture areas, new technologies and modern farm inputs stimulates agricultural growth, which promotes in turn leads to expansion of the rural non farm economy. Increased labour productivity on the farm

Table 4.1
Distribution of Rural Employed Labour Force - Pakistan, 2011
[*Age: 10 Years and Over*]

	Male	Female	Overall
Agriculture			
Agriculture, Forestry, Fishing	52.12	85.47	61.19
Non-Agriculture	**47.92**	**14.43**	**38.81**
Trade	12.08	1.15	9.10
Manufacturing	9.11	8.00	8.81
Construction	9.67	0.16	7.08
Transport and Communication	5.47	0.05	4.00
Education	2.97	2.46	2.83
Community and Social Services	2.25	1.57	2.06
Public Administration	2.60	0.05	1.91
Health and Social Work	0.94	0.99	0.95
Others	2.83	0.00	2.06

Source: Pakistan Labour Force Survey, 2010-11

Table 4.2
Trends in Rural Non-farm Workforce
[*As a Percent of Total Rural Employed Labour Force*]

	2001		2011		Changes in Non-farm Workforce (%)	
	Male	Female	Male	Female	Male	Female
Pakistan	37.56	3.43	34.64	3.95	-7.78	15.29
Punjab	37.65	4.49	34.81	5.16	-7.55	14.99
Sindh	29.76	0.72	23.79	0.83	-20.04	15.92
Khyber Pakhtunkhwa	46.20	2.41	51.48	4.25	11.44	76.37
Balochistan	39.87	1.46	32.23	0.93	-19.16	-36.48

Source: Pakistan Labour Force Survey, 2010-11 and 2000-01

Chart 4.1
Female Rural Non-farm Workforce
[*As a Percent of Total Rural Employed Labour Force*]
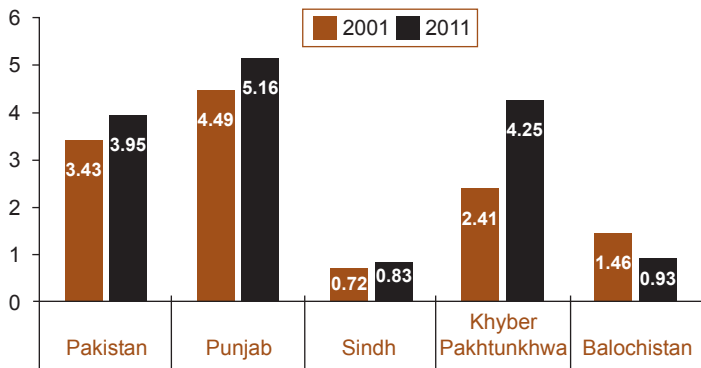
Source: Pakistan Labour Force Survey, 2010-11 and 2000-01

increases available food supplies, releasing farm family workers to undertake non-farm activities. Furthermore, increased farm income makes capital available for investment in the non-farm sector. On the demand side, modern agriculture increasingly requires inputs and services provided by the non-farm sector. Also, farm households use their larger income to buy non-farm foods and services, further stimulating the demand of this sector. This increased demand provides incentives for rural households to diversify and start producing rural non-farm goods and services.In this context, Central Punjab represents the dynamic agriculture region, located in the northern irrigated areas of Punjab. These regions experience rising agriculture productivity, higher returns from agriculture and increased household income; thereby, creating robust market demand for non-agricultural products.

Agro-climatic zones of Southern Punjab and Sindh province correspond to non-dynamic agriculture. The major characteristics of these regions include a feudal order, skewed land distribution and landlessness, non-commercialization of agriculture and absence of proper land management. Consequently, these regions suffer from falling agricultural productivity, low returns from agriculture, and stagnant household income. Consequently, push factors tend to operate in these zones, with respect to household decisions for participation in non-farm activities.

The remaining agro-climatic zones are essentially agricultural 'distress' regions, which include upper (*barani*) Punjab, almost all of Khyber Pakhtunkhwa, and the entire province of Balochistan. Here too, push factors provide the basis and motivation for participating in non-farm work.

An attempt is also made to estimate poverty incidence of rural households. Pakistan official poverty line of 2005-06 after adjusting with CPI for the year 2010-11 and household monthly expenditures are used to estimate household poverty status. Highest poverty incidence of 24.57 percent is estimated for non-agriculture non-farm households as against 14.71, which is estimated for agriculture households. While about 20.38 percent 'Mixed households' which are involved in both agriculture and non-agriculture income generation activities were designated as poor households. These findings support the argument that mainly 'push' factors determine the supply of labour in non-farm economy in Pakistan.

The estimated participation rates from rural household survey in non-farm activities are produced in Table 4.3. The table shows distribution of non-farm wage employment and self-employment across various agro zones[4] and gender. The table reveals that participation rates in non-farm activities through wage employment in Punjab are higher in dynamic agriculture zones as against zones without a dynamic agriculture. About 20 percent incidence of wage employment is estimated in Central Punjab as compared with 17 percent in South Punjab. However, Upper 'Barani' Punjab, shows a relatively higher rate. 25 percent of the labor force engaged in non-farm wage employment.

It is also evident from the table that female participation through wage employment is quite high in 'non-dynamic' agriculture zones of Punjab. About 3 percent wage employment is reported by female labor force in dynamic zones (Central Punjab), while 6

Table 4.3
Participation in Non-Farm Activities
[As a percent of respective 10 years and above population]

	Non-Farm Employment			Wage Employment			Self-Employment		
	Overall	Male	Female	Overall	Male	Female	Overall	Male	Female
Overall	26.22	43.98	7.23	20.28	35.52	3.99	5.94	8.46	3.24
Upper Punjab	29.20	51.45	6.38	24.58	42.32	6.38	4.62	9.13	--
Central Punjab	27.26	50.20	3.06	19.90	36.05	2.86	7.36	14.15	0.20
South Punjab	25.86	36.00	13.96	17.33	25.90	7.27	8.53	10.10	6.69
Sindh – Cotton	17.74	32.85	1.19	16.04	29.60	1.19	1.70	3.25	--
Sindh – Rice	32.26	47.78	16.45	21.88	39.24	4.19	10.38	8.54	12.26
Khyber Pakhtunkhwa	28.33	50.62	2.98	26.86	48.00	2.80	1.47	2.62	0.18
Balochistan	17.29	38.67	0.71	14.32	32.02	0.59	2.97	6.65	0.12

to 7 percent of females are reported working as a wage employer in remaining zones of Punjab which are essentially 'non-dynamic' or agriculture 'distress' areas.

The province of Sindh is divided in two agro zones: 'Cotton' and 'Rice'. According to the table, 16 and 22 percent labor force is reportedly working in the non-farm wage sector. The provinces of Khyber Pakhtunkhwa and Balochistan, which have smaller shares in agriculture GDP of Pakistan, are showing participation rates of 27 and 14, respectively, through wage employment.

Female participation rates through wage employment in Sindh, Khyber Pakhtunkhwa and Balochistan are quite low. These regions reveal non-dynamic agriculture and/or agriculture 'distress' areas. However, 'push' factors for women are not effective in these regions due to lack of employment opportunities in the neighborhood, underdevelopment, illiteracy and cultural constraints.

Overall, the incidence of rural non-farm self-employment activities is very low. According to the table, about 6 percent (8 percent male and 3 percent female) respondents reported self-employment activities. Generally, the rate of non-farm activities through self-employment is relatively high in Southern Punjab. An insignificant percentage of self-employment is reported in Khyber Pakhtunkhwa, Balochistan and the Sindh cotton zones. The phenomenon indicates the linkages between agriculture and non-farm self-employment activities. It is, however, surprising that female share[5] in self-employment in agriculture dynamic zones (Central Punjab) is very low as compared with non-dynamic zones (South Punjab) of Punjab.

Chart 4.2 displays incidence of participation in non-farm wage employment across provinces and gender. Barring Khyber Pakhtunkhwa, no significant differences exist with respect to the male participation rate. It is evident from the table that about 32 to 35 percent of the rural male labor force is engaged in non-farm employment in three provinces, whereas the percentage is quite high (48 percent) in Khyber Pakhtunkhwa. Nonetheless, sharp differences are evident in the case of female non-farm wage employment. Highest (5.37) female participation rate is observed in Punjab, while the lowest (less than one percent), as expected is found in Balochistan.

Chart 4.2
Incidence of Participation in Non-farm Wage-Employment across Provinces
[As a percent of respective 10 years and above population]
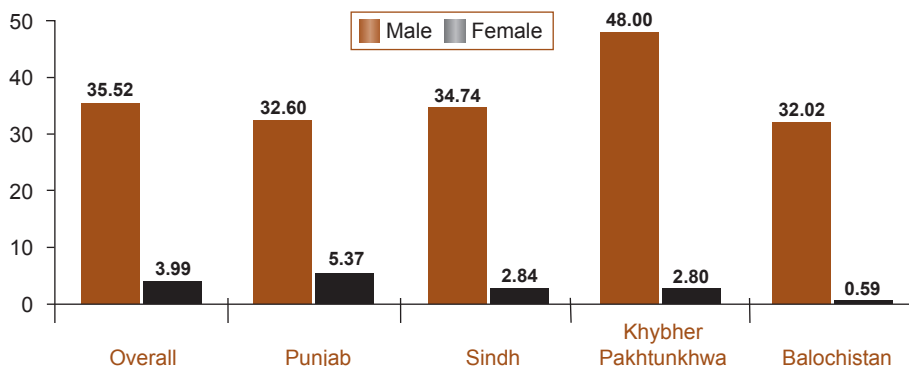
Distribution of non-farm wage employment across major employers is portrayed in Chart 4.3 and Table 4.4. It is evident from the table that the private sector is the main employer offering non-farm wage activities. Almost 83 and 63 percent of male and female wage employees, respectively, are working in the private sector (manufacturing, construction, trade and services), whereas about 15 percent of wage workers, irrespective of gender are in the public sector (mostly in the education department). Female employees are also reported working in NGOs or as domestic employees. Barring Balochistan, no significant differences with respect to trend in major employers exist across agro-climatic zones. In rural Balochistan, majority (61 percent) of wage employees reported working in the public sector.

Chart 4.3
Non-farm Wage-Employment – Major Employers
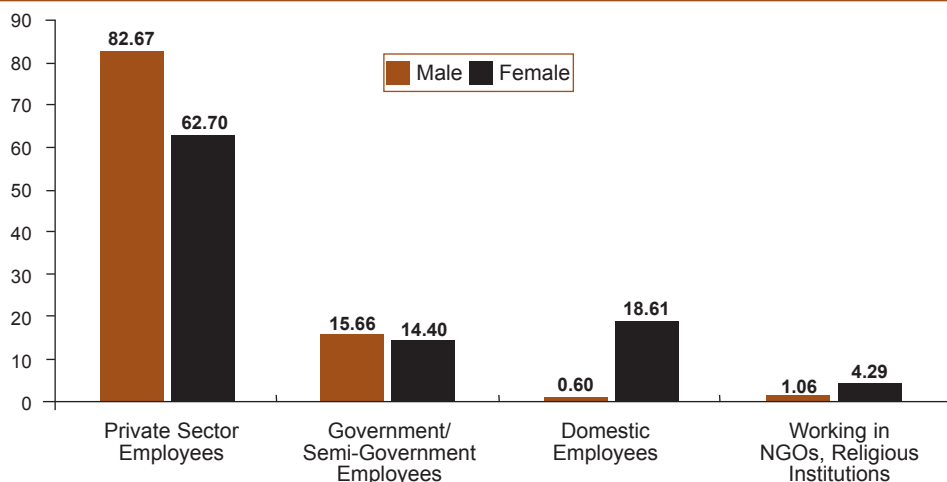
Table 4.4
Non-farm Wage-Employment – Major Employers

	Private Sector Employees		Government/Semi-Government Employees		Domestic Employees	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**
Overall	**83.74**	**66.99**	**15.66**	**14.40**	**0.60**	**18.61**
Upper Punjab	79.41	60.00	19.61	6.67	0.98	33.33
Central Punjab	86.77	57.14	13.23	35.71	--	7.14
South Punjab	90.63	68.42	7.50	5.26	1.88	26.32
Sindh – Cotton	95.12	50.00	3.66	50.00	1.22	--
Sindh – Rice	91.20	100.00	8.80	--	--	--
KPK	77.88	43.75	22.12	37.50	--	18.75
Balochistan	38.50	100.00	60.56	--	0.94	--

Chart 4.4
Non-Farm Self-Employment across Provinces
[As a percent of respective 10 years and above population]
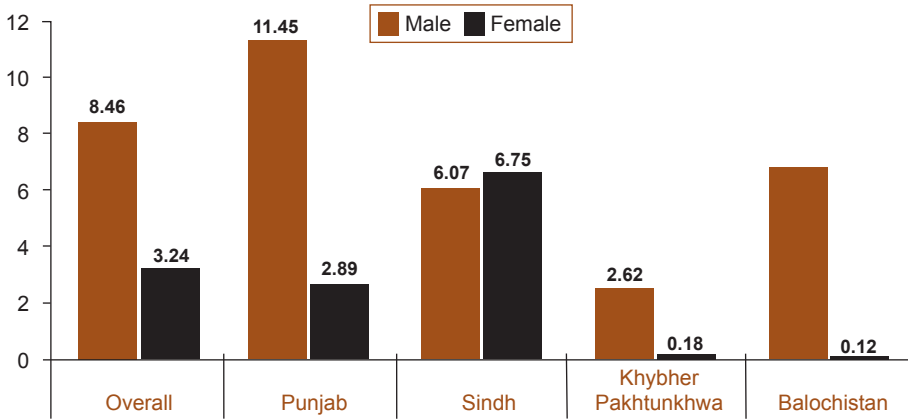
Information regarding incidence and nature of non-farm self-employment is furnished in Charts 4.4 and 4.5. It is estimated that an overall 8 and 3 percent of male and female rural labor force respectively is engaged in self-employment activities. According to Chart 3.3, which also reports the incidence of self-employment across provinces, the highest incidence in rural male labor force is observed in Punjab, while the highest incidence of rural female self-employment is found in Sindh province ('Rice' zone).

Majority of women who report non-farm work participation through self-employment are engaged in the production and sales of home-made products (cottage industry), while male participation is reported mainly in activities such as trade, personal and household services (plumber, electrician, barbers etc.), and transport providers (tanga[6], rickshaw, van etc).

Chart 4.5
Non-farm Self-Employment – Major Activities
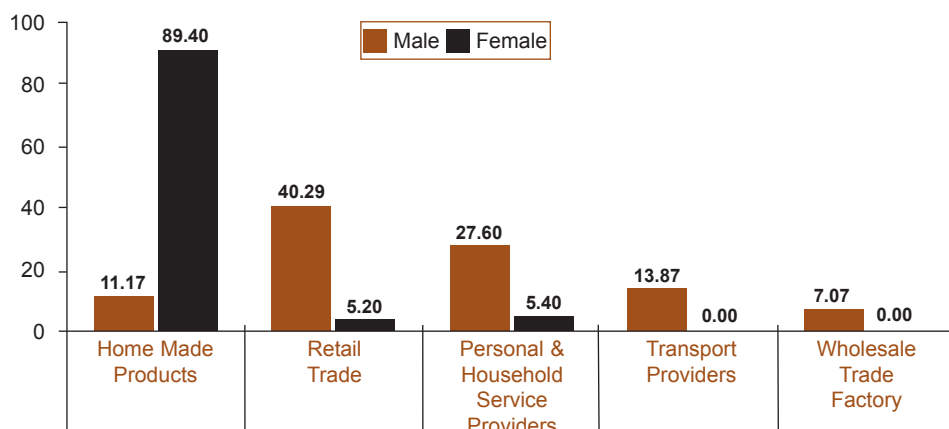
Chart 4.6
Children Participation in Non-Farm Employment
[As a percent of respective 10-15 years age cohort]
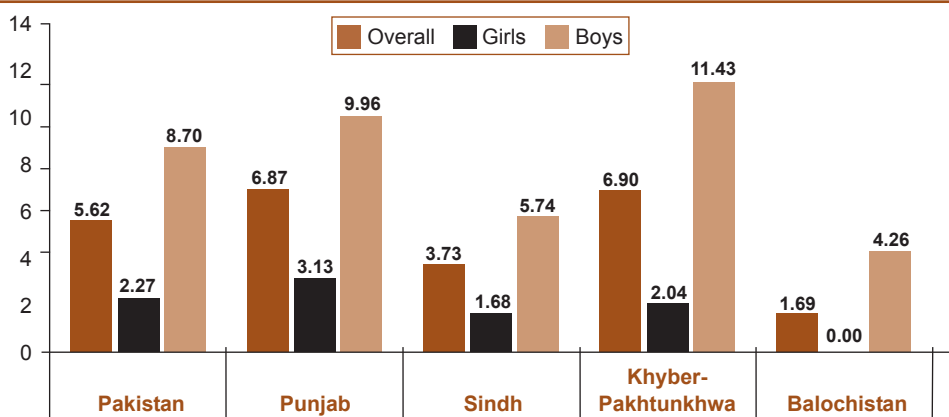
Table 4.5
Children Participation in Non-Farm Employment
[As a percent of respective 10-15 years age cohort]

	Percentage of Population below Poverty Line	Percentage of Child Participation		
		Urban	Rural	Total
Overall	**37.33**	**5.62**	**8.70**	**2.27**
Upper Punjab	15.08	6.78	8.70	5.56
Central Punjab	29.42	5.70	9.71	1.11
South Punjab	44.80	7.82	10.34	4.08
Sindh – Cotton	35.62	4.27	7.14	1.64
Sindh – Rice	45.17	3.23	4.55	1.72
Khyber Pakhtunkhwa	40.16	6.90	11.43	2.04
Balochistan	44.95	1.69	4.26	--

Participation in non-farm activities by children of school going age (10-15 age cohort) is mainly due to household poverty and distress. However, the incidence of child labor also depends on the opportunities and availability of jobs in the area or community neighborhood. The rural household survey of this study estimates an incidence of 6 percent (2 percent girls and 9 percent boys) child labor participation in non-farm wage employment (Chart 4.6 and Table 4.5). Highest incidence is reported in Khyber Pakhtunkhwa, while incidence is relatively low in Sindh and Balochistan. Participation by girls (10-15 age group) in Khyber Pakhtunkhwa is also high and noticeable as compared with low and no incidence of girls' participation in non-farm activities in Sindh and Balochistan, respectively. The survey data (not reflected in the table) reveals that about 75 percent girls are employed in the commercial sector, while about 25 percent are working as domestic employees. Conversely, all male child labourers are reported working as wage worker in a commercial sector.

Wage Discrimination

Although detailed job descriptions regarding wage employment – which is necessary to establish differentials in wage structure – were not scrutinised during the survey, a rough idea of wage differentials across gender may be ascertained from Chart 4.7. The chart shows average monthly earnings (salary and other cash and in-kind benefits).

It is evident from the chart that women generally are either underpaid or involved in low-paid (unskilled) rural non-farm activities through wage employment. The gap is relatively low in the case of public sector employment, while in other sectors average wages of male employees are three or four times higher. However, teh gap in wages is narrow in case of agricultural labourers: averge monthly earning fo male labour is Rs. 4,800 per month, while female labour receives Rs. 3,000.

Chart 4.7
Wages Reported in Non-farm Wage Employment
[*Average rupees per month*]
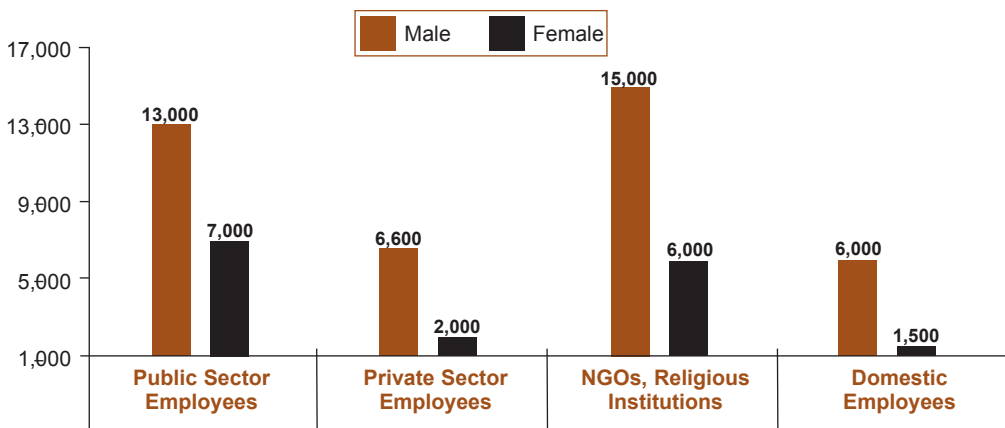
Chart 4.8
Women Empowerment - Mean Score
[*Group: Wife participating in non-farm vs Wife not involved in non-farm activities*]
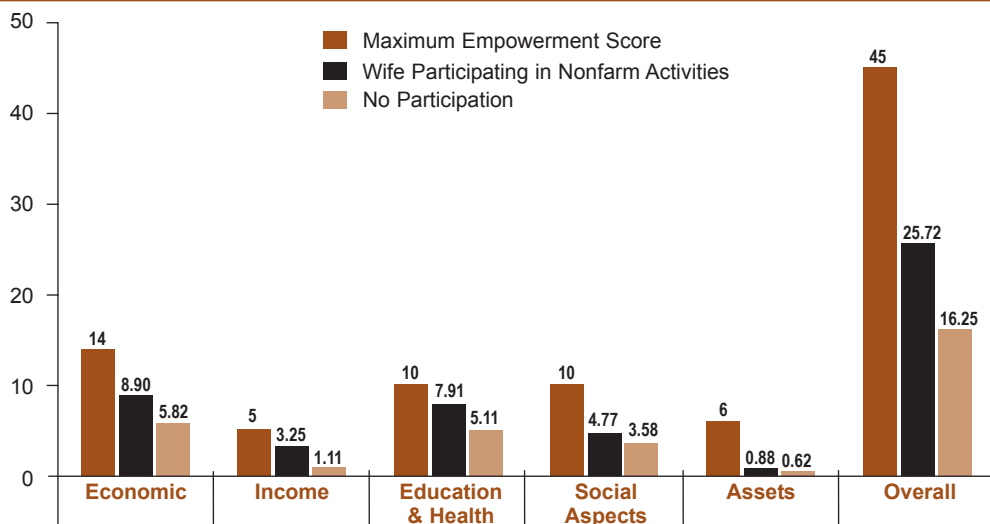
Table 4.6
Women's Empowerment - Average Score
[*Wife participation in non-farm activities*]

Empowerment Variables		Mean Score	in Score	t-value	Significance
Economic Empowerment	Participating	8.9048			
[Score out of 14]	Not Participating	5.8239	3.0809	7.552	.000
Income Empowerment	Participating	3.2533			
[Score out of 5]	Not Participating	1.1087	2.1446	11.187	.000
Empowerment Related with					
Education and Health	Participating	7.9109			
[Score out of 10]	Not Participating	5.1125	2.7984	10.047	.000
Social Empowerment	Participating	4.7712			
[Score out of 10]	Not Participating	3.5845	1.1867	2.831	.006
Assets Empowerment	Participating	.8786			
[Score out of 6]	Not Participating	.6168	.2618	2.216	.029
Overall Empowerment	Participating	25.7187			
[Score out of 45]	Not Participating	16.2464	9.4723	9.733	.000

Note: The differences in average scores in all types of empowerments are highly significant statistically.

Women Empowerment through Non-farm Income Generation Activities

This study also examines how far participation in non-farm activities among rural women has contributed towards her individual empowerment in decision making like household purchases, economic and social aspects, child education and health, etc. The wife of household head was asked a set of 45 questions pertaining to five crucial areas (economic, income, assets, education and health, and social aspects)[7]. The questions are framed in such a manner that each 'yes' gives one point to women and each 'no' gives a score of zero. The evidences of the extent of empowerment[11] in terms of average scores obtained are provided in Chart 4.8. and Table 4.6. Responses are opinions and perceptions and, thus, the exercise gives just a rough idea of women empowerment through non-farm activities.

The low empowerment score, especially in decisions related to assets sale and purchase, indicates the weak position of rural women (wife) in household decision making process. However, it is encouraging that the average score improves as the wife participates in the earning process through non-farm activities. The chart clearly reveals that average score is significantly higher for women who are participating in non-farm activities either through wage or through self employment. According to their perceptions and opinions, participating women are more empowered in decisions related to economic, social and other aspects. Out of a maximum score of 45, participating women have obtained 26 points as against 16 in the case of non-participating women.

To statistically evaluate the differences in average empowerment score between participating and non-participating women, a procedure (t-test) is applied[8]. According to Table 4.6 which furnishes the results of t-test, average scores obtained by participating women in non-farm activities are not only higher as compared with non-participating women, but are also statistically significant in all types of household decision making.

Table 4.7 and Chart 4.9 portray differences in the overall empowerment score between participating and not-participating women across provinces and agro-zones respectively. With relatively fewer cultural constraints in terms of female participation in the job market, the difference in the empowerment score between participation and non-participation women can be postulated to be high in Punjab compared with other provinces. Surprisingly, however, the difference is the highest in Balochistan. Moreover, the survey data also reveals marked differences in empowerment score in Balochistan in all types of empowerment considered in this study. This finding requires further exploration and investigation. This may be due to sampling error or biases in selecting districts in Balochistan. Due to logistical problems (i.e., law and order), strict objectivity could not be maintained.

As expected, an insignificant difference exists between participating and non-participating women in Khyber Pakhtunkhwa, while a relatively low magnitude of difference is observed in the case of Sindh. Culture and high levels of female illiteracy in these areas might be possible causes.

Table 4.7
Women Empowerment across Zones: Mean Scores out of 45 Maximum Points
[Group: Wife participating in non-farm activities and Wife not participating]

	No Participation in Nonfarm Activities	Wife Participating in Nonfarm Activities
Upper Punjab	11.3	20.3
Central Punjab	11.6	23.5
South Punjab	21.7	28.7
Sindh – Cotton	12.3	
Sindh – Rice	27.8	24.1
Khyber Pakhtunkhwa	16.5	17.3
Balochistan	10.4	25.0

Chart 4.9
Women Empowerment Across Provinces: Mean Scores out of 45 Maximum Points
[Group: Wife participating in non-farm activities and Wife not participating]
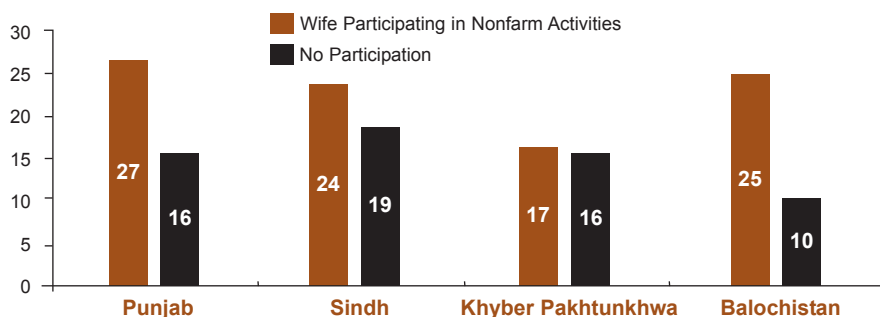
Chart 4.10
Constraints in Participating Rural Non-farm Activities - Respondents' Perceptions

	Lack of Employment Opportunities	Illiteracy	Lack of Infrastructure and Amenities	Lack of Capital	Lack of Vocational Training	Law and Order Problem	Cultural Restrictions	Bad Economic Governance
Male	60.9	16.9	25.6	17.8	7.4	6.1	-	9.7
Female	44.5	26.0	31.9	17.6	4.4	2.0	3.6	5.9
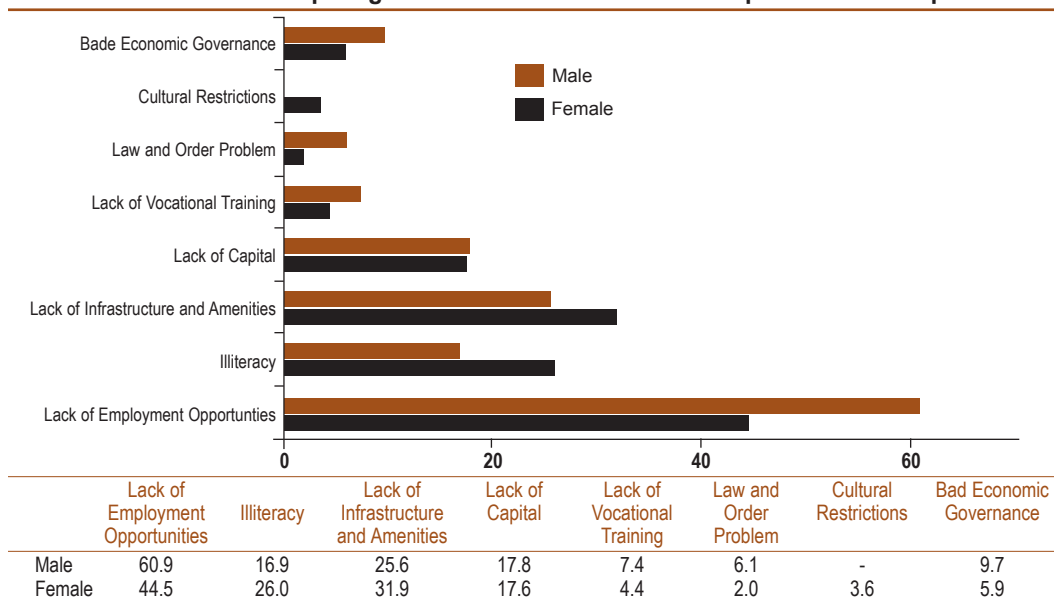
Constraints to Participation in Non-farm Work

During the rural household survey, respondents were requested to indicate the most common problems hindering their engagement in non-farm activities (wage as well as self-employment). Chart 4.10 collates their perceptions.

A majority of respondents, irrespective of gender, are willing to participate and complained about the lack of employment opportunities. Due to a lack of financial resources and entrepreneurship ability, respondents were interested in part or full time jobs in these industries to diversify household income resources. However, an almost non-existence of industries in rural neighborhoods, especially small agro-based and cottage industry, is a major hurdle to participation.

About 17 to 26 percent male and female respondents, respectively, affirmed that their illiteracy is a major constraint. Likewise, lack of vocational training is also recorded by 7 percent. Lack of infrastructure (roads to market and to district/tehsil headquarter) and amenities (water, electricity, public transport etc.) is recorded by a significant percentage of respondents. Female respondents were especially vocal with respect to the lack of infrastructure and its inadequacy. About 18 percent respondents have reservations about the availability of financial resources to engage in self-employment activities. Surprisingly, cultural constraints or restrictions, as a barrier to enter non-farm rural activity, are recorded by very few (4 percent) female respondents.

Bad or deficient economic governance is also recorded as a hurdle in non-farm income generation activities by a noteworthy percentage of respondents. Inflation, corruption, lack of merit and the deteriorating law and order situation, especially in Khyber Pakhtunkhwa and Balochistan, were main hurdles according to female respondents of rural households.

Major constraints or hurdles across provinces are gathered in Table 4.8. Results are according to a priori expectations. For instance, education (illiteracy) is a major hurdle in less developed Khyber Pakhtunkhwa and Balochistan, while employment opportunities or job creation through small scale agro-based industries are more pronounced in Punjab and Sindh. Similarly, a lack of infrastructure is recorded by a comparatively lower percentage of respondents in Punjab, while majority of respondents in Sindh and Balochistan declared

Table 4.8
Perceptions of Respondents about Constraints Across Provinces

Lack of:	Punjab		Sindh		K-PK		Balochistan	
	Male	Female	Male	Female	Male	Female	Male	Female
Employment Opportunities	58.6	74.6	44.6	61.4	6.6	7.9	15.7	14.0
Education	23.8	15.9	17.5	7.6	50.5	26.3	40.7	40.1
Infrastructure and Amenities	17.2	15.4	36.7	46.2	23.1	18.4	100.0	68.1
Capital	13.1	15.0	30.1	28.8	8.8	14.0	5.1	15.5
Vocational Training	7.0	9.7	-	-	9.9	12.3	0.9	0.5
Law and Order	-	-	-	0.8	15.4	44.7	4.2	19.3
Cultural Consent	0.5	-	9.6	-	-	-	1.0	-
Governance (economic)	6.1	12.1	5.4	1.5	-	5.3	13.9	19.3

this factor as a major constraint. However, it is surprising that cultural constraints as a hurdle to participate in non-farm income generation activities is not recorded by respondents in Khyber Pakhtunkhwa and very few (one percent) in Balochistan.

Lack of financial resources as a constraint is recorded, irrespective of gender by a significant percentage in Sindh, while the lack of vocational training is considered a constraint mainly in Punjab and Khyber Pakhtunkhwa.

Statistical Explanation of Non-Farm Work Participation

A number of 'push' and 'pull' factors[9] may influence the decision to participate in non-farm income generation activities. Non-availability of agricultural land, relative stagnancy of agriculture, droughts and other natural disasters, household human and financial capital resources, employment opportunities and availability of infrastructure are important factors for labor supply to the rural non-farm economy. An attempt is made in this section to evaluate statistically the determinants (incentives and disincentives) of participation in non-farm work in the context of rural Pakistan.

Among various approaches of modeling non-farm work participation, a logistic regression is preferred[10]. The dichotomous (binary) dependent variable (1, if respondent is engaged in non-farm income generation activities either through wage or self employment, 0 otherwise) is a function of a vector of individual (respondent) characteristics, a vector of household characteristics, and an array of location characteristics. Variables across these categories or grouping, which turned out statistically significant[11] are described in Table 4.9, while estimated results[12] are presented in Table 4.10.

The estimated model has 0.484 Nagelkerke R-square and a statistically significant likelihood ratio. Both parameters indicate a good fit of the specification. Further, signs (directions) of all explanatory variables are consistent with theoretical considerations and earlier empirical research.

The Table 4.10 clearly indicates very low probability of female participation in rural non-farm work. Estimated probability of overall female participation is only 0.12, which is close to zero. To capture female participation due to cultural constraints in Khyber Pakhtunkhwa and Balochistan, two additional binary variables were introduced which turned out statistically significant, having a very low probability and are negatively correlated with the non-farm participation (dependent) variable.

The result suggests the quadratic effect of age on the level of non-farm work participation. Non-farm income generation activities increase with age as experience and job skill increase, but subsequently decline. The findings are consistent with earlier empirical work. Elder family members do not want to commute and may prefer to work on-farm.

The findings in Table 4.10 reveal a significant contribution by the head of household to non-farm work with a probability of 0.62, while conversely the probability of participation by wife is very low (0.35) and insignificant.

Table 4.9
Explanatory Variables to Determine Participation in Non-farm Income Generation Activities

Respondent Characteristics:

Female Participant	Binary Variable, 1 if respondent is female, 0 otherwise
Age	Age of Respondent
Schooling	Schooling of Respondent (Years)
Wife	Binary Variable, 1 if respondent is housewife, 0 otherwise
Head	Binary Variable, 1 if respondent is Head of Household, 0 otherwise

Household Characteristics:

Labour Force	Number if family members between 15 to 64 age cohorts
Assets Score	This variable is constructed by assigning equal weight to each of the thirty-six assets enquired in the survey. A constant 1 is assigned to each of the assets detained by the household, and the assets score is obtained by summing up across all assets at the household level. Of course uniform allocation of score irrespective of the asset characteristics tends to smooth out the distribution of assets across households. To the extent that these assets have different values and all exhibit different rates of depreciation, uniform allocation might even increase the distortion in the distribution of household assets. But, what actually matters in this construction is the ownership of assets by a household and not so much the values of the asset which are difficult to estimate accurately from surveys carried out on a single visit to the household.
Household having electricity	Binary Variable, 1 if household have electricity, 0 otherwise
Agriculture Land	Ownership of Agriculture Land (Acres)
Number of Crops	Number of crops cultivated
Tenant Household	Binary Variable, 1 if a tenant (share cropper) household , 0 otherwise
Non-Agriculture Household	Binary Variable, 1 if household have no land for cropping, 0 otherwise
Distance from Road	Distance of household from 'pacca' (carpeted) road

Location Characteristics:

Female (K-PK)	Binary Variable, 1 if respondent is female and belongs to Khyber Pakhtunkhwa province, 0 otherwise
Female (Balochistan)	Binary Variable, 1 if respondent is female and belongs to Balochistan province, 0 otherwise
Agro-Climatic Zones - 1 to 8	Eight binary variables representing household in 1 to 8 agriculture zones described in Annexure 3 (Chart and Table A3.1. Zone 9 is the reference category and thus is excluded from estimation due to econometrical reasons.

Table 4.10
Estimated Results of Logistic Regression
[*Binary Dependent Variable: 1=Member participating in non-farm Activities, 0=Otherwise*]

	Estimated Coefficients	Wald Statistics	Statistical Significance	Estimated Probability
INDIVIDUAL CHARACTERISTICS:				
Female Participant	-1.964	226.572	0.000	0.123
Age	0.243	184.197	0.000	0.561
Age Square	-0.003	192.371	0.000	0.499
Schooling	0.015	2.885	0.089	0.504
Wife	-0.601	13.567	0.000	0.354
Head of Household	0.484	15.363	0.000	0.619
HOUSEHOLD CHARACTERISTICS:				
Family Members, 15-65 age cohort	0.648	12.948	0.000	0.656
Assets Score	-0.026	6.048	0.014	0.493
Household having electricity	0.282	2.717	0.099	0.570
Agriculture Land	-0.067	13.386	0.000	0.483
Number of Crops	-0.152	5.344	0.021	0.462
Tenant Household	-0.326	2.551	0.100	0.419
Non-Agriculture Household	0.491	12.850	0.000	0.620
Distance from Road	-0.003	4.606	0.032	0.499
LOCATION CHARACTERISTICS:				
Female (Khyber Pakhtunkhwa)	-1.457	26.365	0.000	0.189
Female (Balochistan)	-2.196	25.641	0.000	0.100
Agro-Climatic Zone - 1	0.523	10.701	0.001	0.628
Agro-Climatic Zone - 2	0.401	5.325	0.021	0.599
Agro-Climatic Zone - 3	0.647	16.125	0.000	0.656
Agro-Climatic Zone - 4	0.555	10.688	0.001	0.635
Agro-Climatic Zone - 5	0.501	8.904	0.003	0.623
Agro-Climatic Zone - 6	-0.638	11.767	0.001	0.346
Agro-Climatic Zone - 7	0.810	23.764	0.000	0.692
Agro-Climatic Zone - 8	0.651	23.677	0.000	0.657
Intercept	-5.423	275.362	0.000	
MODEL SUMMARY:				
-2 Log likelihood			4695.694	
Cox & Snell R^2			0.326	
Nagelkerke R^2			0.484	

A positive and significant impact of education on the probability to participate in non-farm work is expected. The results confirm that years of schooling, which is a proxy for the level of human capital is statistically significant and positively correlated with the non-farm labor supply. This phenomenon is consistent with the results of other empirical research done in developing countries including Pakistan (Shand and Teck-ann (1986), Robinson et al. (1982), and Jamal H. (1995) etc.). However, the estimated magnitude of probability which indicates relative importance of the variable is not so high (0.5) with low level of significance.

To control for the variations in terms of extent of labor force across households, number of household members between 15 to 65 years of age are included as an explanatory variable in the equation. The variable turned out significant and has a high probability (0.66). Thus, higher the labor force pool, higher would be the probability to participate in non-farm work. Electricity is included as an explanatory variable to proxy village modernization. Positive and significant correlation is expected between household electrification and non-farm work participation. The variable behaves as expected with a positive sign and a probability of 0.57.

Household non-productive[13] asset score is used in the analysis to proxy household wealth. It is expected that wealth of a household increases the demand for leisure and, thus, negatively affects the participation rate. As expected, the estimated coefficient associated with asset-score is negative.

Land endowment and cropping patterns are the major determinants of allocation of time between farm and non-farm activities. It is assumed that the smaller the size of land ownership and the number of crops, the higher will be the probability to join non-farm income generation activities. Hence, an inverse relationship exists between the decision to participate and the size of land holding. The results in Table 4.10 confirm this comprehension as the coefficients associated with agriculture land and number of crops are negative and highly statistically significant. Similar reasoning may be argued with respect to non-farm household with no land (owned as well as leased). The results confirm the phenomenon as coefficient corresponding to non-agriculture household is positive and significant. It is also evident from the table that an inverse relationship exists between tenant household and non-farm labor supply.

The distance from household to 'pacca' road is a proxy for the opportunity for labor utilization available to the household as well as a proxy for ease in commuting. Thus, *a priori* expectation is that the farther the road, the less will be the probability of non-farm work participation. The coefficient corresponding to the variable representing distance is negative and thus consistent with findings of other relevant empirical research.

Binary variables representing agro-climatic zones are included in the statistical model of logistic regression to control for the differences across zones with respect to land endowment, soil fertility, cropping pattern, crop management, extent of mechanisation, level of development in terms of financial and human resources and other socio-cultural variables. Differences in these variables may affect the probability to participate in non-

farm income work. The results of logistic regression clearly indicate that all agro-zones are distinct to offer opportunities for non-farm income generation activities. The coefficients associated with all agro-climatic zones are statistically significant. This finding is vastly consistent with the empirical findings in other developing countries. For instance, Davis (2004) concluded that the patterns in access to rural non-farm opportunities are significantly diverse across countries and even in regions in a particular country.

Key Findings and Policy Implications

The role of non-farm income generation activities in rural areas is of special significance, not only because of landlessness but also because of the highly seasonal nature of agricultural employment, water shortage and droughts. The rural non-farm economy provides employment, security in terms of resources and market linkage for agriculture. Thus this sector has immense potential to contribute to overall economic growth and poverty alleviation.

This study focuses on rural households in Pakistan in an effort to understand the economic, social and behavioral aspects that affect non-farm work participation. Exclusively, gender role is investigated in non-farm rural sector by evaluating gender differences in terms of patterns, determinants and the extent of participation in rural non-farm income generation activities.

A primary household survey of about 1200 rural households in the four provinces of Pakistan was conducted for this study. These households were randomly selected from different agro-climatic and cropping zones and were enumerated using comprehensive set of living standard measurement and employment modules.

Major findings from the rural household survey are highlighted below:

- Overall, about 32 to 35 percent of the rural male labor force is participating in non-farm wage employment sector in three provinces, whereas the percentage in Khyber Pakhtunkhwa is quite high (48 percent). Conversely, 4 percent of the rural female labor force is reportedly working as wage employees in the non-farm economy. The incidence of female employment is highest in Punjab (5.37) province and the lowest (0.59) in Balochistan. About 3 percent of female wage employment each is observed in Sindh and Khyber Pakhtunkhwa.

- Almost 83 and 63 percent of male and female wage employees, respectively, are working in the private sector (manufacturing, construction, trade and services); whereas about 15 percent of wage workers, irrespective of gender, are in the public sector. Women are also reported working as domestic employees.

- According to survey estimates, overall 8 and 3 percent of male and female rural labour force, respectively, is engaged in non-farm income generation activities through self-employment. Highest (11.45) incidence in rural male labour force self employment is observed in Punjab, while highest (6.75) female incidence of rural self-employment is

found in Sindh province. The incidences of female self-employment activities in Khyber Pakhtunkhwa and Balochistan are minimal.

- Almost 90 percent of women, among those who reported non-farm work participation through self employment are involved in the production and sales of home-made products. In contrast, male participants are engaged in diverse activities such as wholesale and retail trade, personal and household services and transport.

- The survey estimates an incidence of 6 percent (2 percent girls and 9 percent boys) child labour participation in non-farm wage employment. Highest incidence is reported in Khyber Pakhtunkhwa, while incidence is relatively low in Sindh and Balochistan. Keeping high poverty level in rural Sindh and Balochistan, it is plausible to argue that child (boys and girls) are working on-farm in these provinces. Participation by girls in Khyber Pakhtunkhwa is also high and noticeable as compared with low and no incidence of girls' participation in non-farm activities in Sindh and Balochistan, respectively.

- According to survey estimates, women generally are underpaid or involved in low-paid (unskilled) rural non-farm activities through wage employment. The gap is relatively low in case of public sector employment, while in private sectors, average wages of male employees are three or four times higher. However, the gap in wages is considerably narrow in case of agricultural labourers.

- The measurement of women empowerment in household decision making process is not an easy and straightforward task. Nonetheless, an attempt is made to develop women (wife) empowerment score with the help of a series of decisions. It is revealed that average score is significantly higher for women who are participating in non-farm activities either through wage or through self employment. Participating women are more empowered, according to their perceptions and opinions in decisions related to economic, social and other aspects. Out of 45 maximum score, participating women have obtained 26 points as against 16 in the case of non-participating wives.

- Major constraints and obstacles in non-farm work participation, according to the perceptions of respondents, are lack of employment opportunities and lack of infrastructure (roads to market and to district/tehsil headquarter) and amenities (water, electricity, public transport etc.) Female respondents were vocal with respect to lack or inadequate infrastructure. Other constraints include illiteracy, lack of vocational training, lack of financial resources and bad economic governance. Surprisingly, cultural constraints or restrictions, as a barrier to enter into non-farm rural income generation activity, were recorded by very few female respondents.

- To explore incentives of and barriers to non-farm work participation, an econometric model is also estimated for this study. Factors which are positively correlated with participation include; age, schooling, head of household, electricity and landlessness. Factors which have negative association with the decision to participate are; female,

land ownership, tenant household, number of crops and distance from 'pacca' road. Results of econometric regression also indicate that all agro-zones are distinct (statistically different) to offer opportunities for non-farm income generation activities. The coefficients associated with all agro-climatic zones are statistically significant indicating the absence of commonalities among zones in terms of supply of labour to non-farm rural economy.

On the basis of findings from household survey, following prototype actions are recommended to enhance the role of non-farm work participation to augment or diversify household income in rural areas:

● The study indicates that distinct policies for accelerating the rate of participation should be made for each agro-climatic zone. These policies should consider the available agriculture endowments, human resources and extent of dynamism and commercialisation of agriculture.

● One of the important findings is that generally, 'push' or distress factors are dominant in the decision to participate in non-farm work activities. Therefore, providing employment opportunities in terms of small or cottage industries in rural neighbourhoods would boost the size of non-farm rural economy. Tax and other incentives may attract small entrepreneurs to establish labour intensive agro-based industries in rural areas.

● In dynamic and developed agriculture zones of Punjab, policies should be made to attract farm households to enter self-employment activities. Providing financial resources and vocational training may facilitate income diversification in these areas.

● In Sindh, Khyber Pakhtunkhwa and Balochistan, problem in commuting due to lack of infrastructure and roads is a major constraint, especially for female to enter in non-farm work activities.

● Illiteracy and lack of vocational training both for male and female should be addressed, especially in rural Sindh and Balochistan to increase the demand for rural non-farm wage or self employment activities. Moreover, it should be coupled with establishment of bank branches in rural areas.

● Problems which are also faced by urban industries, such as load-shedding, water shortage, corruption and law and order problems were also quoted by rural entrepreneurs as constraints in establishing business or industry.

NOTES

1. The term 'non-farm' should not be confused with 'off-farm'. The latter generally refers to activities undertaken away from the household's own farm, and some authors use it to refer exclusively to agricultural labouring on someone else's land, so 'off-farm' used in this sense would not fall within the normal definition of 'non-farm' (Gordon and Catherine, 2001). Further, terms 'non-farm' and 'non-agriculture' are used interchangeably in this document.

2. The detail of household survey methodology is provided in the Annexure 3.

3. There is no comparison between the study survey and the national representative Pakistan Labour Force Survey (LFS) due to small sample size, sample stratification, scope and coverage. However, the comparative figures are not so off. According to LFS, refined activity rate (participation of 10 years and above population) in rural Pakistan was 49.1 during 2010-11, whereas the survey conducted for this study estimates refined activity rate as 48 percent. Nonetheless, the small sample size and hence large sampling errors should be kept in mind while interpreting the results follow.

4. The district classification according to the agro-climatic zone is provided in the Annexure 3 (Table - A3.1).

5. Participation is recorded if female is receiving returns from the business, irrespective of ownership of business/activity. Thus, unpaid family labour is not considered as a part of labour force.

6. Horse driven two-wheelers cart used for transportation purposes.

7. For details, see Hashemi et.al. (1996). List of empowerment indicators by type of decision-making is provided in the Annexure 4.

8. The t-test compares sample means by calculating Student's t and displays the two-tailed probability of the difference between the means. A statistically significant t-value indicates that the difference between two groups/categories is significant and the groups or categories may be distinguished in terms of average characteristics (here, average empowerment score).

9. The distinction between push and pull factors suggests that there are different prerequisites, constraints, motivations and outcomes for households engaging in the rural non-farm employment. Davis and Bezemer (2004) reported six factors which determine access to rural non-farm employment and income: (i) education and skills; (ii) social capital; (iii) ethnicity and caste; (iv) gender dynamics; (v) financial capital; and (vi) physical infrastructure and information. Davis (2004) also observed that the patterns in access to rural non-farm opportunities are significantly diverse across countries and regions.

10. For binary or categorical variables, logit, probit or tobit specifications are used. Due to very low level of participation and non-normality of distribution, logit specification is preferred which uses logistic distribution.

11. Many other variables/factor were also tried but dropped from final estimates due to non-significance. For instance, household status with respect to consumption poverty, distance from Bank, value of agriculture produce, highest education in family, value of agriculture land, livestock ownership etc. Statistical non-significance indicates that no significant difference exists with respect to these variables in farm and non-farm households.

12. Ideally, gender disaggregated separate logistic regressions should be estimated to infer incentives and disincentives associated with male and female labour force. However, due to very low percentage of female labour force in non-farm economy (3 percent) separate logistic regression for female was not preferred. Alternatively, female labour force is represented through a binary variable (see Table-4) to control female participation.

13. Productive assets are not used due to econometrical (endogeneity) reasons. Similarly, own agriculture land is used in the analysis instead of operational land holding.

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5 Gender Dimensions of Redevelopment and Resettlement

Cities in developing countries are confronted by multiple issues such as poverty, slum housing, ineffective infrastructure and inadequate social service provision. Many countries undertake urban renewal/redevelopment projects in order to improve the lives of the people and enhance the city's aesthetics. Urban redevelopment projects invariably require 'forced' relocation of inhabitants, often causing social and economic disruption; in particular, loss of livelihoods and income generating opportunities and a social disconnect that particularly affects the female population. Development Induced Displacement and Resettlement (DIDR) is a complex phenomenon that needs a cautious approach and proper understanding of the implications of the planning process.

Theoretically, forced migration/displacement occurs as result of either natural disasters, such as epidemics, droughts, floods, or man-made hazards such as armed conflicts, wars, and infrastructure development. Forced displacement due to development can be an institutional, formal and planned activity that is markedly different from the sudden and more drastic moves caused by conflicts, wars and natural hazards. Development planning may include resettlement strategies to ensure that the benefits of development do not cause undue damage to local population, referred to as 'Internally Displaced Persons (IDP)'.

Development projects can be ruthless to the disadvantaged and minority communities, who have to abandon homes, jobs, and social activities without any appropriate monetary or non-monetary compensation. These projects often lack community participation in the planning process, a resettlement plan prior to the implementation of the project, or even exchange of information with communities about the implementation of the proposed plan. These considerations may help reduce human suffering and ensure the overall well-being of these marginalized people.

Not all development induced displacement has detrimental impacts on the affectees. For instance, research shows that some up-gradation projects in urban slums have improved living conditions in China (Trembath et al. 1999; Picciottio et al. 2001). Literature also shows that planning authorities can make plans that minimize the risks posed to displaced people caused by the urban infrastructure projects.

The city is a complex and dynamic phenomenon that depends on the perceptions, interpretations and understanding of the inhabitants. Wilson (1991) describes the city as a 'text', implying that a city is something that requires to be read and interpreted. Redevelopment changes the power structure in the city and, as such, the elite attempt ot influence changes that would maintain their domination at the expense of the more marginalized groups.

In this context, Lefebvre (1996) has raised the question of urban space utilization and its repercussions for the various forms of rights to everyday life, livelihoods and social relations. Several studies on DIDR show that while the modern paradigm of development incorporates assessment of social costs, environmental impacts and concepts of human rights and social justice, it has not helped reduce the consequent disproportionate burden on the marginalized people. Cernea (2000) has reported that approximately 10 million people have been involuntarily displaced for infrastructure development projects since 1990. Turton (2006) raises a question of citizenship: are the people who were displaced in order to benefit others not equal citizens of the state? Rew et al. (2006) have argued that even in the presence of a DIDR policy framework, "rehabilitation officers usually lack the skills needed to help people suffering the stresses and disorders of displacement and rehabilitation."Downing (1996) viewed involuntary displacement from a 'social impoverishment' and 'social geometry' perspective that demands to redefine social cost and social impact.

The development discourse has gone beyond development or anti-development standpoints and has converged on participation, rights and mitigation of risks and disorders for the less privileged. However, the knowledge-base of urban planning continues to revolve around the planner's practices and perceptions, missing out completely on the impacts and views of those affected. This gap reinforces lack of democratic values or institutional settings to implement policies to the detriment of local people.

The inadequacy of planning literature to mitigate needs of the marginalized population has been discussed by Yiftachel (2006). He argues that "this literature (planning) says little about the spatial impact of actions taken by planners and other key agents of spatial change, and about the possibility that in some settings talk may never lead to resolution, and may have the adverse impact of concealing or legitimizing planning oppression suffered by marginalized groups."

During the last two decades, the literature produced on involuntary resettlement and displacement has focused more on displacement related to construction of dams. Theoretical frameworks such as the four stage model (recruitment, transition, potential development and incorporation) of Scudder & Colson (1982) and the impoverishment, risk and reconstruction model of Cernea (1997) have concentrated primarily on the coping strategies to minimize the risks involved in the resettlement phase.

Ironically, little evidence is found in academic research on the gender dimensions of Development Induced Displacement and Resettlement (DIDR). Parasuraman (1993) and Sweetman (1998) have pointed out that literature on how involuntary displacement affects the status, roles, and development potentials of female migrants is very limited. Mehta and Srinivasan (1999) explain that the major theoretical constraint, which has hampered research on gender dimensions of involuntary resettlement, is that displaced people were considered a 'genderless entity' until the 1990s. Colson (1999) asserts that "re-settlement and rehabilitation plans tend to be flawed in their understanding of the impact of the process on gender relations."

The Lyari Expressway (LEW)

The Lyari Expressway has been built on both the banks of seasonal River Lyari. When not in floods during a few days in monsoon season, the river carries untreated sewage from hundreds of thousands of residences and factories in settlements on either side. Both sides of the river had come to be inhabited by slums, with houses routinely flooded by sewage water. The Expressway lanes have been built along the banks of the river, which necessitated the removal of entire settlements housing thousands of low income families.

LEW was a development project with diverse and contradictory themes, which resulted in the displacement of approximately 250,000 people. For the government and city planners, the construction of the expressway and the removal of people in such large numbers to other areas was driven by the desire to create a high-speed, uninterruptable motorable transit route from one end of the city to another to allow traffic to by-pass city roads. The desire to improve the quality of life by removing slum dwellers to better living environments was an added objective.

For the inhabitants, civil society groups and other stakeholders, however, the huge cost of construction and large scale eviction of the people, without adequate planning and consultation have been a source of great concern and discontent. This study looks into the LEW project through gender lens and presents a gender-wise comparative analysis of the resettlement process with particular reference to well-being before and after the displacement. Cernea's (1997) Impoverishment Risk and Resettlement (IRR) model based on eight interlinked processes of displacement has been used to analyze the outcomes of the resettlement policy in each of the three phases of the rehabilitation, that is, at the time of displacement (ATD), after relocation (ATR), and at present (AP).

Planning of Lyari Expressway (LEW)

Since its inception, planning for LEW lacked a clear understanding of the project goals and objectives, with respect to issues relating to livelihood and social relations of the dislocated population. There is an intrinsic linkage between displacement and vulnerability, which iif not attended to can results into a deterioration of overall well-being of evictees during the transition phase. This transitory phase is largely dependent upon the actions taken to minimize the risks involved.

This research focuses on two distinct and fundamentally important elements of the LEW project: the planning process and the gender impact, i.e., displacement and resettlement of communities. The examination of the planning process includes the role of government functionaries and the implementation of project plan, while the focus on involuntarily displacement includes the eviction process, resettlement issues and impact of forced displacement on the affected people. Measures taken to minimize the risks inherent in involuntary resettlement and the gender dimensions of the planning and resettlement processes have also been examined.

Chart 5.1
Route Map of Lyari Expressway
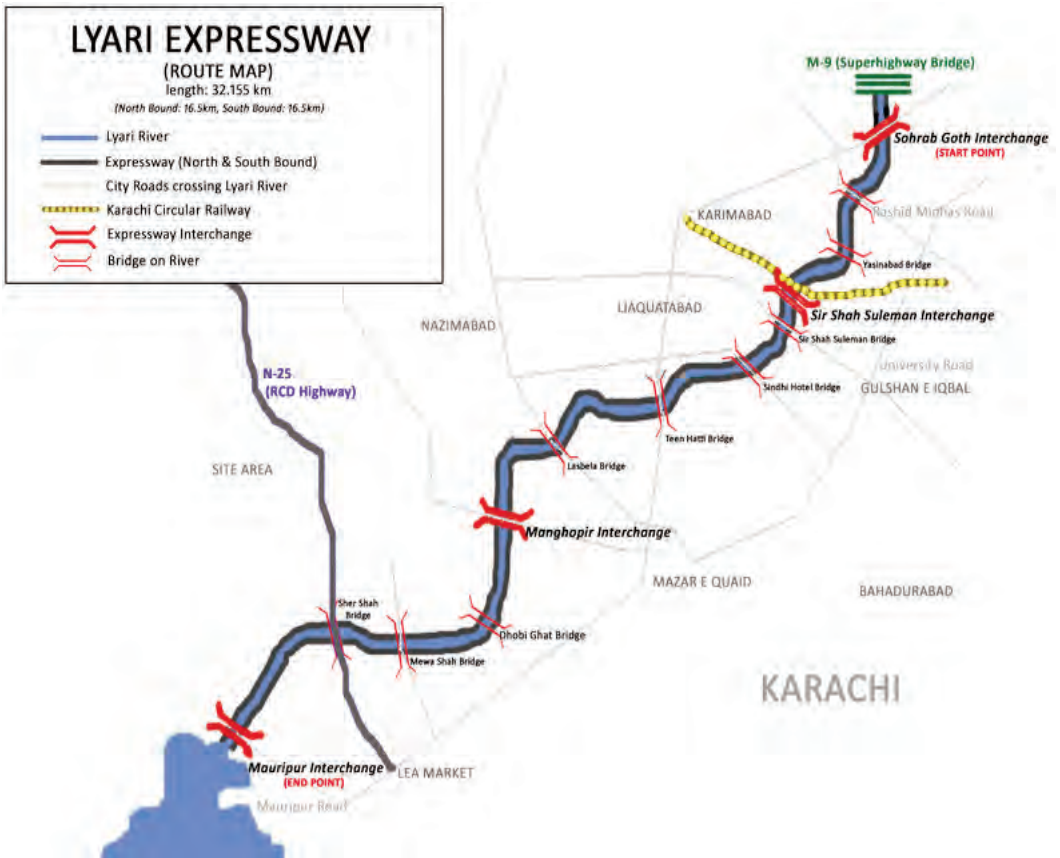
Some of the principal questions that have guided the research are:

- Why was this project a priority of the government?
- How was the project planned?
- What was the level of community participation in the planning process?
- What level of risk assessment was included in the planning process?
- How were community needs incorporated in the plan?
- Was there any plan to reduce the burden of resettlement for marginalized groups, especially women? If so, how was it implemented?
- How did the community view the displacement and compensation process?
- How have the livelihoods of affected communities changed?

Involuntary Resettlement Process: Stakeholders' Involvement

The major stakeholders of LEW were the federal, provincial and local governments, affected communities, and civil society at large, with differential incidence of benefits and costs. Each of the stakeholders thus have diverging perspectives on the process and impact of involuntary resettlement caused by the construction of LEW. For instance, both federal and local government officials viewed the people living there as illegal settlers on government land who needed to be removed. On the other hand, the people themselves and civil society organizations viewed their eviction and loss of livelihoods as a violation of human rights.

LEW was a joint project of the federal and provincial governments, with sixty percent of the funding provided by the federal government and forty percent provided by the provincial government.National Highway Authority (NHA), the primary implementing agency, coordinated with the principal consultant, local government, and other implementing partners. The Frontier Works Organization (FWO), a subsidiary of NHA, carried out the physical construction. The local government, specifically the Revenue Department of the City District Government Karachi (CDGK), was tasked with the preparation of a list of affected people and the clearing of structures from the Right-of-Way (ROW). Lyari Expressway Resettlement Project (LERP) handled the crucial task of rehabilitation and resettlement of the affectees. A summary of the conclusions drawn from the interviews of the concerned governmental authorities is given in Box 5.1.

Planning

The involuntary displacement of over 250,000 people would have caused major sufferings to the evictees and created huge challenges for any government[1]. Even the most meticulous plan cannot be expected to completely eliminate the hardships and sufferings of those uprooted from their homes. The absence of a plan to identify and address the hardships through a consultative process along with the failure in early detection of flaws in the planning intensified the sufferings of the dislocated population.

Box 5.1 also identifyies gaps that existed at the outset of the project. For instance, no socio-economic survey was conducted to assess the risks and the benefits of the project. Similarly, no environmental impact assessment (EIA) was conducted, which was a violation of Section 12 of the Pakistan Environmental Protection Act 1997[2]. Indeed, none of the implementation partners interviewed acknowledged that any formal effort was made at any stage to assess the project's economic feasibility or identify potential gender differentiated social and environmental impacts. A divergence of opinion was observed amongst the various governmental authorities about the usefulness of a formal socioeconomic and environmental impact assessment. Some of the officials considered it to be either unnecessary or irrelevant to the implementation of the project, while others said that another project partner was responsible for carrying out such an exercise.

Box 5.1

Roles and Responsibilities of Government Functionaries

	NHA	CDGK	REVENUE DEPARTMENT	LERP
STAGE 1: PLANNING	• Roles and responsibilities not clear	• Roles and responsibilities not clear	• Roles and responsibilities not clear	• Roles and responsibilities not clear
STAGE 2: RIGHT-OF-WAY (ROW) DEMARCATION AND LIST OF AFFECTEES	• Estimation of Lyari river flow based on 100 years rainfall data • Demarcation of ROW to assess required area for construction of LEW • Preparation of project design from Engineering Associates Karachi	• Supervisory role in preparation of list of affectees • Verification of initial survey lists by public representatives in collaboration with Revenue Department	• Area-wise survey of affected areas for preparation of list of affectees • Preparation of list of leased and un-leased properties; • Verification and re-verification of survey lists	• Preparation of PC-1 on the basis of list of affectees, leased and un-leased structures as prepared by Revenue Department
STAGE 3: EVICTION AND COMPENSATION & CONSTRUCTION	• Construction of the LEW by Frontier Works Organization	• Provide ROW to the NHA for construction of Expressway • Preparation of rehabilitation plan for affectees	• Demolition of houses coming in the ROW • Payment of compensation on leased property as per Land Acquisition Act 1894	• Advocacy and negotiation with communities • Enforcement of Compensation Policy as per verified survey lists prepared by Revenue Department
STAGE 4: RESETTLEMENT	• No role in resettlement	• Provision of land for resettlement project to LERP for development of these sites	• Provision of land for resettlement project to LERP for development of these sites	• Planning and demarcation • Provision of civic utilities and amenities • Management of services • Land development • Facilitation in initial phase of resettlement • Management of resettlement sites

Source: Interviews with stakeholders

Moreover, the early planning phase also fell short of community participation when the government neither actively engaged nor shared timely information about the project with the potential evictees. The opinions and the needs of affected communities, especially its marginalized members, such as the women, elderly and disabled, do not appear to have figured into project plans. The project also failed to invite no-objection from potential evictees or other stakeholders.

The primary initial failure can be attributed in part to the ill-defined coordination among the roles of project partners. LEW was a joint project of the federal, provincial and local government. The federal government had initiated the project and financed the capital cost. NHA was awarded the lead supervisory role, which selected the design consultants and agency for construction. The provincial government had no role other than to provide the required funds and was by-passed by CDGK in the entire process. At the same time, CDGK had no role in the designing stage; it was just required to move the population in the Right of Way (ROW) out of the way. NHA failed to coordinate with either the provincial or local governmen. The cast iron division of responsibilities allowed each implementing partner to interpret its role to its convenience.

Demarcation of Right-of-Way and List of Affectees

The government claimed that the project design fulfilled the requirement of displacement of those living along the Lyari riverbed with minimum human suffering and at minimum project cost. However, demarcation of the proposed ROW was undertaken without any information about the size and demographics of the affected population. Thus, in the absence of a socioeconomic survey, it was not possible to verify whether the area demarcated as ROW was justified with respect to minimum impact and cost.

Moreover, some features of the project design and its consequential implications were not fully understood by all the implementing partners. For instance, the original design had no provision for a service corridor for the maintenance of the Expressway once it was completed. Since the maintenance of LEW would not have been possible with construction along both sides of the road, inclusion of this change at a later stage further dislocated the people and it also, at first, did not get the support from the officials of city government. Local government officials claimed that they did not understand the technical details of construction such as requirement for the width of the service corridor. Their primary concern was that any change to the original dimensions of the ROW would increase dislocation. But once they were made to understand the technical requirements for the service corridor they too conceded that it was a necessary and unavoidable element of the project design[3].

No formal resettlement and rehabilitation plan existed at the time of project inception. This was one of the key problems related to the planning stage of the project. A rehabilitation plan was announced by the local government in September 2002, following public outcries. However, the plan was neither issued as a public document nor shared with the affected communities. Although it touched upon the issue of compensation, it did

not recognize, or provide for, the special needs of vulnerable and marginalized groups such as women, children, disabled, and the elderly – who are globally recognized to often bear a disproportionate burden of development induced displacement and are the most vulnerable to impoverishment and disenfranchisement. According to the compensation policy for leased and non-leased properties, leased properties were given compensation according to the Land Acquisition Act 1894 that binds the government to pay market value of the property. For un-leased (unauthorized) properties, a compensation of Rs 50,000 and a plot of 80 square yards were given to each affected household.

CDGK prepared the initial list of affectees based on satellite imagery, but without knowledge of the demarcation of the ROW. The original PC-1[4] for the project prepared in 2002 estimated the total required dislocation of 14,811 families. Due to subsequent changes in the alignment of the ROW, addition of interchanges and service corridors, the figure increased to 24,419 in 2005 and to 30,011 in 2008. Seemingly, these repeated revisions were largely due to the differences in the interpretation of the term "family unit" for purpose of compensation (see Box 5.2).

Eviction and Compensation

The construction along the Lyari riverbed consisted largely of unplanned and unlawful settlements. Some are, however, on leased property, which dates back at least fifty years[5]. The proposal for the construction of the Lyari Expressway, therefore, was initially resisted by communities who had been living in these areas for generations and had developed an affinity with its environs. Since, some of these communities had strong political linkages, a political cost was also associated with the removal of these settlements. Although aware of these difficulties, the local government was resolute that the project had to be completed in the national interest.

Box 5.2
Definition of "Family Unit" for Compensation

The City District Government Karachi announced Rs. 2.87 billion rehabilitation plan for the affected people in September 2002, well after the project was underway. It was decided that for un-leased properties, every affected "family unit" would be compensated by an award of cash compensation of Rs.50,000 plus allotment of 80 square yards residential plot at one of the three resettlement sites – Hawks Bay, Taiser Town, and Baldia Town.

The initial survey report prepared by the Revenue Department had considered each housing structure as a "family unit" for purposes of compensation. This was later revised after the Sindh High Court ordered that each level of a multi-storied building was to be counted as a separate unit. In the final survey report, "family unit" is in reference to a separate kitchen and bathroom facilities for members of a family. This implies that multiple family units can reside on one residential premise. The difference in the initial and final survey lists is, therefore, due to counting the number of families per premise as "one family" instead of including them as a single "unit".

Source: Interviews with stakeholders

CDGK had the difficult task of clearing the ROW for the construction of the expressway. In general, eviction notices were issued to the affected households just 15 to 20 days before the demolition. The transition period prior to resettlement undoubtedly presented many hardships and inconveniences for all the evictees but, more so, for the most vulnerable: women, children, sick, and aged. Seemingly, no special effort was made to ensure that the process of eviction and relocation goes smoothly for these vulnerable groups.

Another important controversy related to eviction was the issue of compensation for the affected families. The government viewed compensation as a token of "goodwill", intended to facilitate the affectees and not to compensate them for damages suffered during displacement. LERP was entrusted with the payment of compensation according to the survey lists prepared by the Revenue Department in an open "katchery"[6].

Table 5.1 summarizes the status of the compensation payment. Of the total families affected by the project, 87 percent have been compensated fully while others were at different stages of the process at the time of the survey.

It is important to note that while all unauthorized residential structures falling in the ROW were entitled to compensation, it was decided that commercial encroachments would not be compensated as they have long availed benefits of unlawful use of government land. In the case of leased properties, it was decided that if the lease possessed by the petitioners was genuine, compensation would be provided to them based on market value of the property in accordance with the provisions of the Land Acquisition Act 1894[7].

Resettlement

Three resettlement sites have been built on land provided by CDGK to LERP, where plots have been provided to evictees free of cost. All responsibilities related to relocation of the affected families to the new sites, including payment of compensation, shifting facilitation, demarcation of plots, development of land, and provision of civic utilities and amenities, were given to LERP.

Relocation was carried out as per a "Resettlement Preference Criteria" whereby those displaced from the lower, middle, and upper reaches of Lyari River were resettled in Hawks Bay Scheme-42, Baldia Town Scheme-29, and Taiser Town Scheme-45, respectively[8]. Nevertheless, if an affectee expressed desire for a specific site from one of the three sites, then LERP facilitated the request wherever possible. Hawks Bay was the first of the three locations to be populated

Table 5.1
Payment of Compensation

	(no. of families)
Complete Compensation (Rs50,000 plus 80 square yards plot)	26,071
Only 80 square yards plot (cash yet to be given)	2,443
Compensation in-process	1,497
Total	**30,011**

Source: LERP website as at May 31, 2011

in 2002, while Taiser Town started in 2004 and Baldia in 2009. Table 5.2 summarizes the allotment data.

Table 5.2 Allotment in Resettlement Sites	
	(no. of allotments)
Hawks Bay	5,557
Taiser Town	19,306
Baldia Town	2,439
Total	**27,302**

Source: Data provided by LERP on April 12, 2011

LERP coordinated with Karachi Electric Supply Company (KESC), Karachi Water and Sewerage Board (KW&SB), provincial health, education, sports, and zakat departments, and federal departments such as Bait-ul-Maal for provision of civic utilities and services in the new locations. It was also responsible for water supply, sewage disposal, sanitation, streets and roads, plantation, and educational institutions in these areas.

Water pipelines were installed, but no water was supplied. As such, for several years, tankers were used to supply water; but this facility was stopped in 2010 because of insufficient project funds. The project also manages 25 schools through public-private partnership where books, uniforms and stationery are provided to students free of cost. Teachers are hired from within the communities.

Provision of employment opportunities was not part of the rehabilitation plan since it was not feasible to establish industrial units on these sites. In an effort to facilitate the settlers, LERP set up skill development centres to provide vocational training in computers, cooking, stitching, and beautician courses. This was especially intended for the female members of the community. However, funding constraints are now being faced since the government has not released any funds for the project since 2010. Skill development centres which were being managed from the project funds have not been functional for roughly the same duration.

Analysis of Impoverishment Risks at Household Level

Meyer and Miller (2001) defined the basis of evaluation as 'appropriateness, equity, effectiveness, adequacy, efficiency, implementation feasibility, and sensitivity analysis". Appropriateness provides information about the trade-offs and community goals and objectives. Equity deals with distribution aspects of proposed actions. Effectiveness asks whether a proposed action can produce desired results or not. Adequacy looks for other alternatives that might be considered. Efficiency estimates costs and benefits of proposed actions and also provides information about the foregone benefits and extra costs that might be incurred. Implementation feasibility looks into the financial, legal, administrative, and organizational capability aspects of the proposed action in combination with the any opposition from groups. And, sensitivity analysis would predict impacts when another set of assumptions are used. These separate and individual components of an evaluation cannot provide a holistic view to the decision makers for the acceptance or rejection of any proposed action. It is imperative to assemble these components into an

understandable whole so that decision makers can arrive at a judgement about the desirability of the proposed action.

Common impoverishment risks[9] associated with displacement are landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity and mortality, loss of common property and services and social disarticulation. It is important to look at the gender differentials of the impoverishment risks primarily due to the very nature of their different impacts on men and women.

This section presents and discusses the findings based on information collected at the household level for the three time periods: ATD, ATR, AP and presents a gendered analysis of impoverishment risks linked with education, employment, and income. An analysis of expenditures, liabilities, living standards, access and availability of public services at household level has also been carried out by comparing pre and post displacement periods. Since the time lag between the first involuntarily displacement and the research is approximately 9 years, changes in household composition have been netted for the population affected by LEW. This has helped in examining and focusing on the affected people only. The rationale to have information at the household level was to bring forward and understand the change in the well-being of the households in the transition phase (ATR) and at present (AP).

Overview of Household Survey

The city of Karachi, being the focal point of economic activities, has attracted the majority of inland migrants from all of the four provinces, particularly Khyber Pakhtunkhwa (formerly known as NWFP). Lacking in education and skills, majority of migrant workers were absorbed in the informal sector. After the initial settlement period, they brought their families to the city in search of better education and economic opportunities for their children. This increased the demand for low-cost housing in the city.

The emergence of squatter settlements in Karachi was the result of the failure of the government to provide low-cost housing to the people. The banks of the seasonal Lyari River provided ample land – albeit, marginal and flood prone – which was occupied by squatters. Land away from the flood zone was leased and was inhabited even before Independence.

Table 5.3 highlights the extent of association of the affectees with this area, as reflected by the number of years of residence. Gender-wise difference by household heads is also presented to examine variation in length of residence. It is evident that more than half the residents (53 percent) had been living in the old settlement for a period of 21 to 40 years.

Table 5.3
Time Period Lived in Old Settlement by Household Heads

(Percentage of Households)

Years	Total	MHH*	FHH**
1 - 20	32.9	29.9	43.3
21 - 40	53.1	54.8	50.0
41 - 60	12.6	14.6	6.7
61 - 80	1.0	0.6	0.0
81 - 100	0.4	0.0	0.0
Total	**100.0**	**100.0**	**100.0**

Source: SPDC Field Survey
*Male Headed Household | **Female Headed Household

Twice the percentage of MHH had been resident for 41-60 years than FHH. However, over 40 percent more FHH were resident 1-20 years than MHH.

Education Status

Due to displacement, it was anticipated that many individuals would have faced discontinuation of education. Not surprisingly, enrollment ratios collapsed drastically for all the categories in the ATR period. Enrollment ratios improved slightly during AP over ATD periods for all categories, except for males aged 18 and above; who were at 39 percent in ATD and managed to reach only 11 percent in the AP period. This sharp permanent drop in adult male enrollment was on account of economic hardships that forced them to discontinue their education in order to join the work force and earn an income.

Table 5.4
Enrollment Ratio in Educational Institutions

(persent)

Time Period	Male	Female	Boys	Girls	Overall
At the time of Displacement	39.2	3.0	48.4	46.8	34.7
At the time of Resettlement	4.0	0.8	5.0	5.9	4.1
At Present	10.9	3.6	49.6	1.5	29.0
Source: SPDC Field Survey					

The striking feature of Table 5.4 is the extremely low level of enrollment of 3 percent in the age 18-plus female classification during the ATD period, which increased marginally to 4 percent in the AP period. Enrolment ratio for girls aged less than 18 have also not increased despite the location of their primary schools being close to their homes and the LERP's advocacy campaign. Nearly 50 percent of girls are still out of school in the three relocation sites. This may also be due to cultural barriers to female education.

The analysis of education status demonstrates that households have had to compromise on the future of their children during the ATR period. The sharp decline of enrollment in the ATR period can be termed as displacement shock for those children, who faced temporary discontinuation. For those who did not return to school, the displacement eliminated future possibilities to improve their lives.

The high percentage of permanent discontinuation faced by secondary school going age children (63 and 52 percent of male and female, respectively) can be attributed to the fact that no secondary level institutions and colleges were in close vicinity of the relocation sites. Moreover, many affectees substituted work for education in order to supplement the family income after displacement.

The reasons for temporary discontinuation was largely due to un-affordability of education expenses following displacement, non-availability of educational institutions at the resettlement sites and increase in travel time. About 9 percent female responses also cited insecurity as a cause. The overall impact of involuntarily displacement on education has been more severe on males than females.

Table 5.5
Household Member's by Nature of Activity

(percentage of household members)

Nature of Activity	At the time of Displacement	At the time of Resettlement	At Present
MALE			
Employed/Earners	73.9	36.1	66.5
Unemployed	12.3	37.8	17.1
Not seeking work	13.8	26.1	16.5
FEMALE			
Employed/Earners	11.4	2.5	6.7
Unemployed	0.3	8.8	1.0
Not seeking work	88.3	88.6	92.3

Source: SPDC Field Survey

Employment Status

About three-fourths of males and over one-tenth of females were employed or self-employed at the time of displacement. Proximity to the city centre and easy access to industries and markets, including for home-based female workers. Table 5.5 shows gender-wise nature of activity of household members in all the three time periods.

The table shows that, during the ATR period, the ratio of male employment dropped to 36 percent and for females to less than 3 percent.

During the AP period, a somewhat reasonable employment level of 67 percent was achieved for male members, while the female employment level came up to 7 percent only – both below the ATD level. The percentage of women not seeking work increased from 88 percent during ATD to 92 percent during AP; indicating that women dropped out of the labour market, ostensibly due to distance and commuting problems. Prior to relocation, the majority of the female employees had been working in factories or as domestic servants nearby. The resettlement sites were, however, too far from their places of work, where there were fewer employment opportunities in and around the resettlement sites. Since most of the females were either engaged in home-based industries or domestic service, the impact of displacement on female employment is likely to be permanent.

Expenditure, Assets and Liabilities Status

One of the impacts of involuntarily displacement is that it breaks the income cycle and alters, usually adversely, the level and pattern of household expenditures. Although the impact on household income was positive for many families during the AP period, it is likely that higher expenditures than income would have increased liabilities. The information on household expenditures and liabilities was collected at two time periods, namely within one year of displacement and from displacement to the present.

Changes in Household Expenditures

It was anticipated that the displacement will change household expenditures within one year of displacement, as the process of relocation involves many tasks that require

financial resources. For instance, families had to bear the transportation cost of moving, construction of their new home, additional travel cost from resettlement site to work/school, etc. Most of the households rented a home within close vicinity of the construction site for monitoring or to save travel time and cost if constructing the house themselves. Initially, there were no shops at the resettlement sites, so even items of daily use had to be brought from the city.

Comparison is made between (1) within one year of displacement and (2) at present (AP). For 93 percent of families, expenditures increased post-displacement as well as at present (Table 5.6). The highest share of expenditure – 32 percent and 16 percent, respectively – was claimed by house construction costs on plots provided at resettlement sites and cost of transportation of construction materials. The next large expenditure item – 20 percent – was for rented accommodation in the transition period, given that displacement occurred prior to construction of houses. All three costs have fallen drastically in the AP period, as house construction has been completed and families have moved from rented to own premises. The major expenditures in the AP period are higher prices of daily use items at the resettlement sites (32 percent) and higher cost of commuting from resettlement site to work, education, shopping, etc., sites in the city.

Changes in Household Assets and Liabilities
One of the major sources of higher impoverishment risk is the loss of assets and increase in liabilities. In response to the sudden loss or reduction of income coupled with increase

Table 5.6
Change in Household Expenditures

(percentage of households)

Response	Within one year of Displacement	At Present
Increase	92.5	93.1
Decrease	2.2	2.2
No change	5.3	4.7
Total	**100.0**	**100.0**

Source: SPDC Field Survey

in household expenditures, affected families sold existing assets or borrowed to meet the rising financial demands. Low level of literacy, absence of collateral and the cumbersome process of the banking system impeded the affectees in obtaining loans from formal financial institutions; requiring them to borrow from informal channels (family/friends).

Table 5.7 shows the negative impact of displacement as 44 percent of households sold their existing assets to mitigate the crisis in the transition phase. Some households recovered from the shock as 16 percent viewed an increase in the household assets, excluding the house, in the AP period. However, 32 percent of households failed to recover from the displacement shock that had reduced their assets.

Table 5.7
Change in Household Assets

(percentage of households)

Response	Within one year of Displacement	At Present
Increase	2.6	15.7
Decrease	43.7	31.5
No change	53.7	52.8
Total	**100.0**	**100.0**

Source: SPDC Field Survey

Comparison of Living Standards

Living standards attributes of surveyed households are divided into three categories: structure of house, provision of basic utilities, and access and availability of other public/private services.

Housing at Lyari River site

Housing is a basic human need. The dilemma with low income earning families is lack of savings that impedes purchase of houses in a metropolitan city. In the absence of low cost housing, the emergence of squatter settlements is inevitable. The affected households considered homes along the Lyari River as their life-long asset. Not concerned with the legal status of their house, *de facto* ownership was an important factor and a source of self-esteem for all.

Residential status, house structure and material of roof are important parameters to help compare living standards. The residential status of the surveyed households during the three time periods shows that ownership of houses declined by more than half soon after displacement, i.e., from 98 percent to 45.5 percent, and 51 percent of households lived temporarily in rented premises in nearby localities while constructing their own houses at the resettlement sites. Those who could not afford to live in rented premises lived on allocated plots with temporary/make-shift arrangements. At present, 92 percent of households have home ownership with legal documents.

The structure of a house depicts the overall living conditions and level of affordability for repair and maintenance. Table 5.8 shows that 13 percent of families lived in katcha (makeshift) houses during ATD, whose share rose to 23 percent during ATR, but which has now fallen to 7 percent – half the level of ATD. There is, thus, a perceptible improvement in the quality of housing for about 6 percent of families. Over half (56 percent) of the houses had 'pukka' (proper concrete structure) structure during ATD, whose share has now fallen to less than half (48 percent); implying that 8 percent of pukka house dwellers now have semi-pukka houses (brick walls, but makeshift roof). This is corroborated by the increase in the share of semi-pukka house dwellers from 31 percent during ATD to 44 percent during AP.

Table 5.8
House Structure

(percentage of households)

Residential Status	At the time of Displacement	At the time of Resettlement	At Present
Katcha	13.4	23.2	7.3
Semi-Katcha / Semi-Pukka	30.5	46.9	44.3
Pukka	56.1	29.9	48.4
Total	**100.0**	**100.0**	**100.0**

Source: SPDC Field Survey

Basic Household Utilities

Water is a life-sustaining item and required for drinking, cooking and other daily household chores. Before displacement 72 percent of households had water connections inside their houses, which fell to 16 percent during ATR and remains at 40 percent during AP (see Table 5.9).

The provision of water at relocation site was water tankers, provided free of cost by LERP to households during relocation. This arrangement has now been discontinued and 45 percent of households now buy water from private tankers. Access, availability and cost of water continues to be a major and serious problem for evictees in the resettlement sites even today.

Sanitation facilities were not adequate for people residing on the both embankment of Lyari River, with 15 percent of families bereft of any sanitation facilities during ATD. This percentage increased to 26 percent during ATR, but which has since declined to 12 percent during AP. During ATD, 75 percent of families had their waste water disposal linked to the piped sewerage system, which has during AP increased substantially to 85 percent. The percentage of families with waste water disposal linked to open sewerage has declined from 11 percent to 3 percent. Clearly, there has been a major improvement in hygienic conditions in the resettlement sites; although some respondents have pointed out that the sewerage system in place is not fully functional, as the many of lines are choked or broken.

With respect to electricity, 89 percent of households had metered electricity connection during the ATD, which has declined to 72 percent during AP. Correspondingly, the percentage of families with un-metered connections has increased sharply from 9 percent during ATD to 28 percent during AP. According to the residents interviewed at the resettlement sites, the electricity company did not provide metered connections; instead, households were billed a fixed amount which was agreed to by both parties. Families using kerosene lamp increased from one percent during ATD to 14 percent during ATR, reflecting the hardships the evictees underwent during the transition period. Use of kerosene lamps has since dropped to below one percent during AP.

During the initial phase of resettlement, there was no provision of natural gas and the evictees used firewood for cooking. Thus, gas availability fell from 85 percent during ATD to 29 percent during ATR, when 61 percent of families used firewood. It was quite

Table 5.9
Basic Household Utilities

(percentage of households)

Source of Water	At the time of Displacement	At the time of Resettlement	At Present
Source of Water			
Water Tap [inside]	72.0	16.1	40.0
Water Tap [outside]	16.7	4.3	0.8
Government Tankers	0.2	58.1	13.2
Tanker purchased by respondent	1.6	17.3	44.9
Others[a]	9.4	4.1	1.2
Total	**100.0**	**100.0**	**100.0**
Sanitation Facilities			
No Facility	5.31	8.27	10.63
Flush System [linked to sewerage system]	74.80	67.13	84.65
Flush [linked to open sewerage system]	10.63	7.09	2.95
Others[b]	9.25	17.51	1.77
Total	**100.0**	**100.0**	**100.0**
Source of Electricity			
Electricity with meters	89.2	37.0	71.7
Electricity without meter (official)	7.1	38.6	15.9
Kerosene lamp	0.2	11.6	0.2
Power theft	2.6	9.6	11.8
Others	1.0	3.1	0.4
Total	**100.0**	**100.0**	**100.0**
Source of Cooking Fuel			
Gas with meter	84.8	28.5	84.6
Gas supply without meter (official)	1.8	3.0	1.0
Gas Supply with lump sum payment (lineman)	1.6	1.0	1.2
Firewood	9.8	61.4	10.2
Kerosene	0.8	2.0	0.2
Gas cylinder	0.6	3.7	2.4
Private arrangement with neighbor on payment	0.6	0.2	0.4
Total	**100.0**	**100.0**	**100.0**

[a]Includes hand/motor pump, well, private arrangement etc.

[b]Includes flush linked to septic tank etc.

Source: SPDC Field Survey

cumbersome and costly to collect or buy firewood but at that time the households had no other option available. The situation improved during the AP period as 85 percent of households have natural gas connections. However, some sectors in the resettlement sites still do not have gas connections and 10 percent of respondents are using firewood.

Access to parks and playgrounds increased from 57 percent during ATD to 72 percent during AP. Children, who earlier played in narrow garbage strewn or sewage swept banks of the river now have healthy facilities. But access to community centres decreased from 61 percent to 32 percent between the two periods.

Access to markets and grocery shops has declined from nearly 100 percent during ATD to 95 percent during AP. Nevertheless 95 percent access signifies growth of business for daily use items at relocation sties. Access to TV cable has decreased substantially from 96 percent to 61 percent due to absence of service providers in the resettlement sites.

The overall impact of displacement on health services is highly negative, as access to health clinics and MCH centres decreased from 99 percent to 54 percent and 94 percent to 49 percent, respectively, during ATD and AP periods. In case of an emergency, patients have to be taken to medical facilities located in the city centre as there are no such facilities available at the resettlement sites. Some respondents also related experiences of losing family members on their way to hospital. Access to public transport has decreased from 99 percent to 83 percent from the ATD to the AP period.

One of the major complaints of the affected people was the quality and frequency of these services/facilities. There are clinics, but doctors or paramedics are not available most of the time. Similarly, transportation service/facility exists, but the timings of bus arrival are unpredictable.

Table 5.10 shows that percentage of families reporting reliable availability or regularity of basic services. It can be seen that reported availability of water has decreased from 97 percent in ATD to 27 percent at present; reported availability of doctors

Table 5.10
Availability of Common Services/Facilities

(percentage of households)

		Regular	Irregular	Not Applicable	Total
Water	At the Time of Displacement	96.9	2.6	0.6	100.0
	At Present	26.6	49.4	24.0	100.0
Gas	At the Time of Displacement	88.0	0.6	11.4	100.0
	At Present	77.0	10.2	12.8	100.0
Doctor	At the Time of Displacement	99.0	1.0	0.0	100.0
	At Present	37.8	59.4	2.8	100.0
Transport	At the Time of Displacement	99.4	0.4	0.2	100.0
	At Present	35.8	62.6	1.6	100.0
Medicine	At the Time of Displacement	98.2	1.8	0.0	100.0
	At Present	55.9	42.7	1.4	100.0
Grocerty Shop	At the Time of Displacement	99.8	0.2	0.0	100.0
	At Present	81.3	17.5	1.2	100.0
Vegetable & Fruits	At the Time of Displacement	100.0	0.0	0.0	100.0
	At Present	78.0	21.3	0.8	100.0
Meat & Poultry	At the Time of Displacement	99.8	0.2	0.0	100.0
	At Present	77.6	21.3	1.2	100.0
Fresh Milk	At the Time of Displacement	100.0	0.0	0.0	100.0
	At Present	85.6	14.2	0.2	100.0
Hardware Store	At the Time of Displacement	100.0	0.0	0.0	100.0
	At Present	79.5	19.1	1.4	100.0

Source: SPDC Field Survey

has dropped from 99 percent to 38 percent; and reported transport regularity has dropped from 99 percent to 36 percent. Thus, evictees are worse-off in terms of availability of water, gas, doctors and transport facilities at relocation sites compared to the pre-displacement period.

Gender-wise Analysis of Individual Well-Being

The impact of involuntary displacement due to infrastructure development on affected communities depends largely on how the resettlement process is planned, negotiated, financed, and implemented. The primary objective of resettlement must be to safeguard the rights and well-being of those affected. McGillivray (2007) describes this as "the state of individuals' life situation." Human well-being comprises diverse characteristics which include: *material well-being* (food, assets, and work); *physical well-being* (bodily integrity, health, and physical environment); *social well-being* (self-respect and dignity, affiliation, and friendship); *psychological well-being* (peace of mind, happiness, and harmony); and security (personal physical security and lawfulness and access to justice).

The previous section looked into the gains and losses caused by displacement at the household level of the affected population of LEW. It particularly focused on education, employment and income and expenditure and liabilities along with a number of other aspects of household living standards. This section examines the gendered impact of involuntary displacement and resettlement on these affectees and its implications on their future well-being. The objective is to help understand the nature of the burden borne by female and male respondents separately.

The gains and losses mentioned above have been compared between the female and male respondents by collecting and analyzing data on marital status, education, income and employment status, socialization, and various other aspects of individual well-being. The analysis, based on the responses given on the process and experience of displacement, helps in exploring the level of satisfaction and dissatisfaction prevalent among individual affectees. Perspectives existing among the affectees about their future in the relocated sites have also been discussed.

Individual Profile

Marital Status of Respondents

Marriage is not just a strong cultural and religious institution in Pakistan but it also has implications for the social and economic status of individuals, especially women. The findings of the survey conducted indicate that 77 percent of female and 71 percent of male respondents were married at the time of eviction (Table 5.11). Therefore, it may be

Table 5.11
Marital Status of Respondent
(percentage of responses)

	ATD		At Present	
	Male	**Female**	**Male**	**Female**
Unmarried	27.8	12.1	17.1	8.2
Married	71.4	77.3	81.0	74.6
Divorced/Separated	0.4	1.2	0.8	1.6
Widow/ Widower	0.4	9.4	1.2	15.6
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: SPDC Field Survey

presumed that the respondents were then earning and had household responsibilities on their shoulders.

The category of 'single' is further classified as unmarried, divorced/separated, and widow/widower. As reflected in Table 5.11, 10 percent of women were separated, divorced or widowed during ATD and which increased to 17 percent during AP. In the absence of a male partner, there exists a probability that at least some of the women were household heads at the time of eviction with other household members dependent on them. This is a situation that implies greater vulnerability and risk of deprivation as a result of involuntary displacement.

Educational Qualifications of Respondents

The affected communities belonging to different ethnic and cultural backgrounds have diverse educational status. Table 5.12 summarizes the gender-wise education status of respondents. During two different time periods (i.e. at the time of displacement and at present), roughly 39 percent and 63 percent of males and females, respectively, did not have any formal education. The higher percentage of illiteracy at the time of displacement especially among females was a major obstacle in their understanding of the complexity and severity of the displacement.

Table 5.12
Educational Qualification of Respondents

(percentage of respondent)

Education Status	At the Time of Displacement		At the Time of Resettlement		At Present	
	Male	Female	Male	Female	Male	Female
Illiterate	38.9	63.3	38.9	63.3	38.9	62.9
Primary	23.4	26.6	25.8	26.6	25.8	26.2
Secondary	26.6	7.0	27.8	7.0	26.6	7.0
Intermediate	4.0	1.2	4.8	1.6	6.3	1.6
Graduate	1.6	0.8	1.6	0.8	2.0	1.2
Others	5.6	1.2	1.2	0.8	0.4	1.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: SPDC Field Survey

Income Profile at Individual Level

Table 5.13 presents monthly income earned by the identified respondents from economic and/or non-economic sources. The respondents' income profile have been categorized by income groups and adjusted for inflation[10]. The table shows that 15 percent and 78 percent of the male and female respondents, respectively, had no economic source of income prior to displacement. Of those with some means of livelihood, 25 percent of males and 20 percent of females had a personal monthly income equal to or below Rs. 4,000. A large percentage of male respondents (40 percent) had a monthly income between Rs. 4,001 - Rs. 10,000 at the time of displacement; in comparison, only 2 percent of female respondents had incomes between Rs. 4001 and Rs. 10,000.

Table 5.13
Income Profile of Respondent

(percentage of respondent)

Education Status	At the Time of Displacement		At the Time of Resettlement		At Present	
	Male	Female	Male	Female	Male	Female
Zero Income	15.1	78.1	55.2	88.7	17.1	88.3
Up to Rs. 4,000	25.4	19.5	19.4	10.5	54.0	11.3
Rs. 4,001 to 7,000	39.3	2.0	18.3	0.4	23.0	0.4
Rs. 7,001 to 10,000	14.3	0.4	4.8	0.4	5.6	0.0
Rs. 10,001 to 15,000	4.8	0.0	2.4	0.0	0.0	0.0
Rs. 15,001 and above	1.2	0.0	0.0	0.0	0.4	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: SPDC Field Survey

Due to loss of employment and business, a sharp increase is observed in the share of respondents with zero economic income during ATR. However, it appears that over time livelihood opportunities for males have opened up, though in the lower income brackets. This is evident by increase in the share of male respondents with incomes up to Rs. 4,000 and a decline in the Rs. 4,001 - Rs. 10,000 income group. Moreover, displacement has completely eroded the income levels of female respondents in the higher income groups (Rs.10,000 and above).

The income pattern corresponds with the employment pattern. Overall, 84 percent and 63 percent of female and male respondents, respectively, said their employment/business was discontinued due to displacement. The length of disruption after displacement can be divided into temporary and permanent categories. The findings show that 68 percent of female respondents faced permanent discontinuation of employment/business compared with only 19 percent of male respondents.

Within the category of temporary discontinuation, 49 percent of male respondents were able to resume employment/business activities within one year of displacement in comparison with only 21 percent of female respondents. This shows that the process of rehabilitation was slower for females because no income generation opportunities were available at the relocation sites. On the contrary, male respondents were able to find jobs outside the relocation sites despite having transportation problems.

Impact of Displacement on socialization

The concept of well-being comprises multiple dimensions that affect the overall quality of life[11]. Human beings are social animals and thrive on shared experiences with family, neighbors, friends, relatives, other community members and fellow colleagues. Associations and relationships are built over time. Involuntary displacement or forced relocation, however, threatens the social environment which was built over several generations prior to displacement.

Of the survey sample of 508 respondents, 52 percent and 56 percent of males and females, respectively, viewed that displacement has had an adverse impact on their social interaction and activities. In contrast, only 8 percent of males and 6 percent of females considered it to have a positive impact on socialization. The impact of displacement on socialization was not 'significant' for 40 percent and 39 percent of male and female respondents, respectively.

The respondents who perceived an improvement in socialization gave many reasons for this view, as summarized in Table 5.14. The most commonly cited reasons by male and female respondents are: extended families/communities were settled near-by, improved living environment, and an increase in community-based activities. Seemingly, the favorable opinion held by female respondents is more closely related to the positive features of the relocation sites. Reasons such as 'better living environment' and 'better recreational facilities' are more frequently cited by the female respondents.

Table 5.14
Reason for Improvement in Socialization by Gender

(percentage of responses)

	Male	Female
Extended family / community relocated nearby	48.6	36.4
Better living environment	37.1	50.0
Better recreational activities are available	0.0	4.5
Increase in community activities	5.7	4.5
Better transport / improved mobility	2.9	4.5
More leisure time	5.7	0.0
Total	**100.0**	**100.0**

Source: SPDC Field Survey

Two aspects of socialization that have suffered are considered important. One, residents have virtually stopped visitng relatives and friends or attending social events because of transport problems. The resettlement sites are far from the city and public transport is deficient, with the last bus arriving from the city at 8 pm; thus, effectivley precluding them from attanding any evening eventws. Taxis are not an option in terms of availablity and cost.Two, marriage of girls has emerged as a problem because of distance. One female respondent summed it up as follows: "We are so far awy, not one visits us, who will send proposals if they do not see our girls".

Overall, over 50 percent of all respondents (male and female) feel that their social interactions and activities have suffered due to displacement. There are various reasons given by these respondents for deterioration in socialization, with the most commonly cited reasons being relocation of community in different locations, long distances to the city, and an increase in the cost of travel. No significant gender difference is observed in the opinions of male and female respondents.

Application of Impoverishment Risk And Reconstruction Model

Development projects are essential for the growth of the economy and the improvement of living conditions. However, planners and policymakers often tend to overlook the risks associated with the project to those directly affected. When a project involves involuntary displacement and resettlement, the risk of disenfranchisement and impoverishment leads to higher vulnerability and susceptibility. This vulnerability and susceptibility sometimes has an intergenerational tendency and the process of building resilience may extend to several years.

The LEW project falls in the category of those DIDR projects where vulnerability, risk, susceptibility and impoverishment of affected people were not assessed before the implementation of the project. As a consequence, the overall well-being of the displaced population has been impacted negatively, and is lower than what it was during the pre-displacement period.

The Impoverishment Risk and Reconstruction (IRR) model is a widely applied theoretical and conceptual model for projects that involve involuntary displacement and resettlement (Cernea, 1997). Based on the four-stage model developed by Scudder and Colson (1982), this model is now used extensively as an analytical framework for understanding the process of resettlement and assessing its positive or negative outcomes. It is also used as a forecasting tool or methodological instrument for risk analysis during project planning to devise preventive and mitigation strategies.

McDowell (2002) views the concept of the impoverishment process in the IRR model as an identical ontological framework to that of the Sustainable Rural Livelihoods approach. Three converging points between the two are: the impoverishment process, institutions involved and livelihood strategies. These approaches were incorporated into a new framework that defines and links forced displacement, sustainable livelihoods and impoverishment risk analysis.

De Wet (2006) views displacement and resettlement as a process that is inherently complex. He argues that 'inadequate inputs' such as the legal framework, policies, monitoring and implementation that is mechanistic rather than people based have made the process of involuntary resettlement even more difficult. Since the process is greatly influenced by internal and external factors, the planning process requires an open and participatory approach.

The building blocks of the IRR model are impoverishment, risk and reconstruction that could either be evaluated independently or within a single framework. The three fundamental concepts possess varied dimensions, are interlinked, and are dependent on each other. These notions can be broken down into measurable variables to gain in-depth knowledge of the planning and implementation process from the viewpoint of risk reduction strategies. The concept of impoverishment is the key to the IRR model as most development projects often uproot marginalized and disadvantaged groups and the forced displacement increases their level of impoverishment beyond that of the pre-displacement period.

According to Cernea (1997), the term impoverishment is applied to the different risk components of displacement such as landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources and community disarticulation, and therefore, cannot be labeled as a measurement of poverty. Each risk component has its own dimension and level of intensity and can be ranked according to its primary and secondary effects.

Social risk analysis is a complex theme and its measurement varies in time, physical space, social groups, context and scale. There are various ways to define risk. In social sciences, one definition is "a situation or an event where something of human value (including humans themselves) is at stake and where the outcome is uncertain" (Rosa, 2003). Understanding of risk from the viewpoint of human suffering and well-being is necessary for risk avoidance, mitigation and development of alternative mechanisms. The United Nations International Strategy for Disaster Risk Reduction (UN/ISDR) defines risk as "the term risk encompasses the probability and the amount of harmful consequences or expected losses resulting from interaction between natural or human induced hazards and vulnerable conditions" (2002). It views risk as a precursor to human suffering because of the inability of governments to mitigate and that of communities to be resilient to hazards.

Measurement of Overall Well-Being of LEW Affectees

The IRR model performs four basic functions by deconstructing eight components mentioned above.

1. The predictive function enables planning and decision-making authorities to anticipate and measure tangible and intangible impoverishment risks of involuntary resettlement. It also produces knowledge for early warning of the probable damaging effects of dislocation.

2. The diagnostic function helps in acquiring on-ground knowledge about the displaced population through field work by converting impoverishment risks into different scales or ranking according to the context. It also uncovers, explains and assesses the basic theoretical assumptions of the model in the light of on-ground realities.

3. The problem-resolution function contributes to analytically precise and explicit action- orientated approach. *A priori* knowledge of risks associated with forced displacement contributes in proposing resolution of and demanding meaningful actions to avoid or reduce human suffering.

4. The research function enables researchers to develop their own theoretical foundations, integrate new approaches and variables in the conceptual framework and define linkages among impoverishment variables in different time periods.

The IRR model has been used for this study as a diagnostic and research tool, guided by the eight impoverishment risks of displacement and resettlement. It has been applied to measure and analyze the overall well-being during three time periods: at the time of displacement (ATD), when LEW affectees were living along the Lyari river-bed; at the time of resettlement (ATR), when the affectees were relocated to the resettlement area over a span of 2 to 8 years; and at present (AP), which is the current time when the LEW affectees are living in resettlement sites.

For the purpose of this study, the IRR model was adapted with slight calibration and addition of new variables (referred to as SPDC model in this report). For instance, the IRR model did not take into consideration discontinuation of education as a critical factor of impoverishment risk. The SPDC model includes education of boys and girls from the viewpoint of intergenerational impoverishment and risk, which hypotheses that the capacities and strength of the community or household would be seriously undermined inter-generationally with the discontinuation of education. All levels of education such as primary, secondary, graduate, post-graduate and professional education including technical training are included in the framework of overall-well being.

Another aspect of the SPDC model is the measurement of the gender differential impact of forced displacement. It has been argued that forced displacement instills more vulnerability in people who are already marginalized, and women and children have to bear a disproportionate share of it. This argument has been analyzed by looking at how women have been affected by forced displacement of the LEW project. Analysis has been conducted at household level to estimate overall well-being by gender.

Methodology of Estimation
The indicators used in the estimation were collected on the basis of a field survey of 187 households with 157 male headed households and 30 female headed households, in the three relocation sites. The survey questionnaire was designed to give equal weight to the eight impoverishment risk indicators of the IRR model to avoid computational difficulties. A well-being model was developed using the IRR model as its foundation, including new variables and excluding those that did not emerge as primary factors of impoverishment.

The eight indicators of the IRR model (landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources and community disarticulation) are guiding pillars of the SPDC model. Landlessness was captured through a comparison of land entitlement during the three periods. Unemployment was measured through assessment of both formal and informal employment. The model focused on homelessness for the period soon after displacement, as most of the affectees were relocated on barren land with no basic social services or other facilities. The relocation sites are 15 to 20 km away from town centres. This caused discontinuation of education, job loss and deprivation of income generating capacity. This has been included as marginalization in the model. Access to facilities such as parks and playgrounds, places of worship, community centres and family planning

services, along with transport are used as proxies for loss of access to common property resources. The community disarticulation aspect of the IRR model was difficult to measure in quantitative terms and is, therefore, not included in the estimation of overall well-being. Overall, SPDC model deconstructs the eight impoverishment risks into 30 variables of well-being at household level.

The first forced displacement was carried out in 2002 and residents were resettled in Hawks Bay. The second eviction took place in 2004 to Taiser Town, and the third eviction in 2009 to Baldia Town. The gestation period of resettlement has been different for the three relocation sites. This difference in the resettlement period was controlled in the analysis by using different weights for the three resettlement sites.

The first step in a quantitative application of the model was to standardize[12] all variables. The variables were then grouped into the three periods of time under study: ATD, ATR and AP. The mean of each variable was calculated and all the mean values were subsequently added to obtain a single mean value for the period. The mean values close to 1 show a positive trend while those close to 0 show a negative trend. The comparison of the mean within the three time periods would give information about the direction of change from better to worse or vice versa.

The SPDC model is based on six broad categories, viz., education, housing structure, access to facilities, availability of services, employment rate, and per capita income. These broad categories are sub-divided into variables that directly or indirectly capture the impoverishment risks of the IRR model. The variables of education, unemployment and income are estimated by gender. Since the data was collected at household as well as at individual level, the individual characteristics fully represent household status if identified by the gender of the head of household.

Gender-wise Sectoral Comparison

The rationale of inclusion of the education module in the IRR model was to study the impact on education (as one of the crucial factors) on both boys and girls for the "intergenerational impoverishment and risk" analysis. For low income families, education of children is considered as vital to breaking the vicious cycle of impoverishment. In this respect, the highly subsidized education system (at tertiary and professional level) in Pakistan has helped low income families to obtain better paid jobs after education. Education of children is also a tool of risk reduction, as discontinuation of education compromises future resilience capacity of households.

The estimation of gender differentiated impact is another innovative dimension of the SPDC model. It has been generally acknowledged that women are more at risk than men in a poor household. It has also been recognized and accepted that while women have less decision-making power, they are the nucleus of household activities in Pakistan. Risk reduction plans at household level that benefit some members at the expense of others would increase their future vulnerabilities. This would be particularly important in the context of women who have to perform diverse roles to improve the quality of life at

household level. Any mitigation and rehabilitation plan that is not women-centered would be ineffective especially in the post-displacement period.

The investigation of changes in household characteristics due to displacement reveals that enrollment ratios in educational institutions, household income and employment/business had a substantial impact during the ATR period. Household expenditures increased after displacement primarily due to increase in travel cost, expensive grocery items, purchase of water, and construction of the remaining part of houses. The differential gender impact of displacement is a mixed one. Permanent discontinuation of education was largely found among males, while females have incurred greater loss of employment/business and a decline in income.

Chart 5.2 shows the cumulative enrollment ratio for boys and girls during the three periods under study. The impact of forced displacement on education of children is visible as the enrollment ratio in the ATD period (that was already lower than the provincial and national averages) dropped dramatically from 42 percent and 44 percent for girls and boys, respectively, to only 6 percent. Enrollment ratios picked up during the AP period, but did not reach the level of the ATD period. The recovery in enrollment during the ATR period is misleading, since it does not denote a return to education, but considers the addition of new family members after displacement. The actual impact of discontinuation of education on intergenerational impoverishment and risk would be greater because 75 percent of boys and 50 percent of girls experienced permanent discontinuation.

Chart 5.2
Enrollment Ratio for Girls and Boys
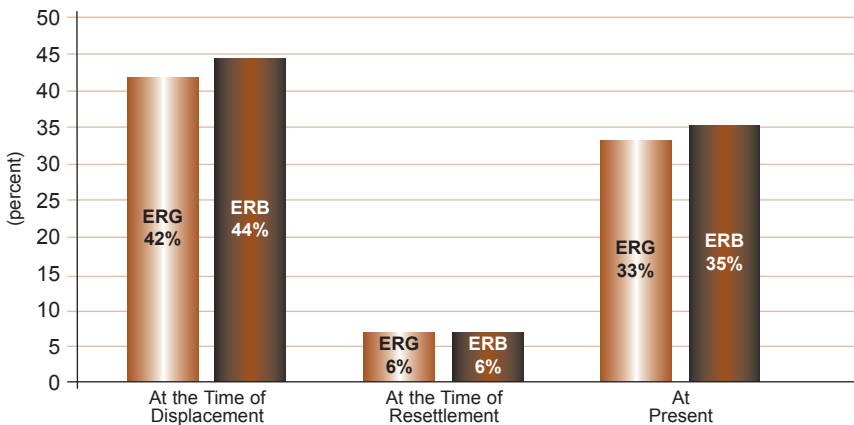
Source: SPDC Field Survey

The analysis of the education module in the context of intergenerational impoverishment and risk would require a discussion about the qualitative aspects of discontinuation of education after forced displacement. For boys, loss of income generation capacity of the family income compelled them to join the labor force. The other

aspects that contributed to the permanent discontinuation of education for boys are un-affordability of education related expenses, distance of educational institutions, and lack of ability to break the psychological barriers created after forced eviction. For girls, the most daunting challenges to continue education were mobility and security issues. Lack of proper transport facilities, increase in the distance of educational institutions and continuous deterioration of the law and order situation are some leading factors besides un-affordability that prevented 50 percent of the girls from continuing education after displacement.

The variable of house structure comprises the residential status, type of house (pukka or katcha), material of roof, sources of water, electricity and fuel for cooking in addition to the sanitation facilities. A gender-wise comparison reveals that there is no significant difference in the house structure in all three periods; except during ATR, where female-headed households had less facilities compared with the male-headed ones. Household resilience to the hazards depends on the number of males in the family in patriarchal societies as in Pakistan. The drastic decline in the house structure from 67 percent to 29 percent for female-headed households signals the probability of less male members. However, both households could not reach the level of housing facilities at the ATD as shown by the gap between ATD and AP periods (see Chart 5.3).

Chart 5.4 shows the comparison between male and female headed households for access to facilities such as parks and play grounds, community centres, transportation facilities, hospitals and clinics, family planning and mother-child centre, and places of worship. The pre-displacement period is seen to be better in terms of access to facilities both for male and female households as 89 percent male and 72 percent of female households had access to the facilities mentioned above. However, the ATR period was more difficult for female households compared to male households as only 30 percent of the former had access to facilities compared with 43 percent of the latter. Male headed households are now slowly reaching the previous level of access to facilities as 71 percent of households have already achieved the pre-displacement status. Access to facilities for female households has not picked up because of the restricted mobility and poor facilities for females. For instance, no arrangements have been made to facilitate female mobility by allowing them to either share buses with males or have dedicated compartments. There are no hospitals, clinics and mother and child centres at the relocation site that could help facilitate access of female households to these services.

There is not much difference in the availability of services for male and female headed households during the three time periods. Availability of services was measured for water, gas, doctors and paramedics, medicines, shops for vegetables, meat and grocery, and hardware stores. Information was collected also for the regularity and irregularity of these services. Chart 5.5 presents that both male and female headed households suffered substantially from the shock of displacement. Even today it lags behind in ensuring the availability of services that are necessary for human survival. LEW affectees are waiting for improvement of services such as water, energy and health. According to residents this is unlikely to happen in coming years due to financial and governance issues existing at the level of agencies responsible for the completion of task.

Chart 5.3
Comparison of House Structure

MHs, 71%
FHs, 67%
MHs, 40%
FHs, 29%
MHs, 64%
FHs, 60%

(percent)

ATD   ATR   AP
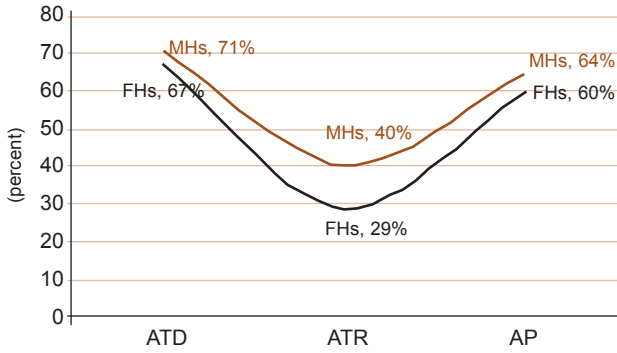
Source: SPDC Field Survey

Chart 5.4
Access to Facilities at Household Level

MHs, 89%
FHs, 72%
MHs, 43%
FHs, 30%
MHs, 71%
FHs, 55%

(percent)

ATD   ATR   AP
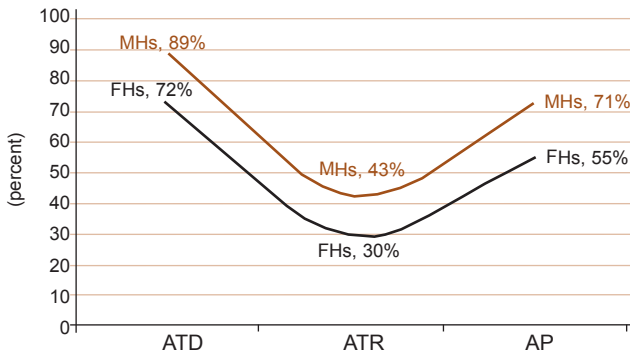
Source: SPDC Field Survey

Chart 5.5
Availability of Services at Household Level

MHs, 99%
FHs, 97%
FHs, 30%
MHs, 27%
MHs, 64%
FHs, 57%

(percent)

ATD   ATR   AP
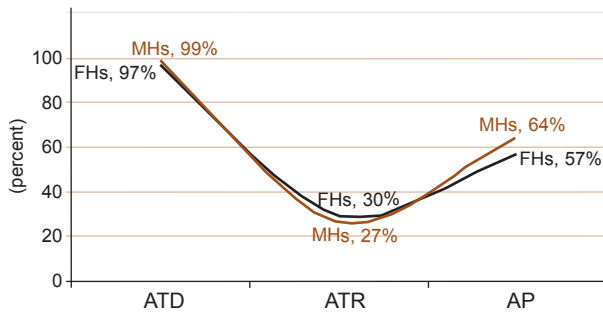
Source: SPDC Field Survey

Chart 5.6
Employment Rate at Household Level
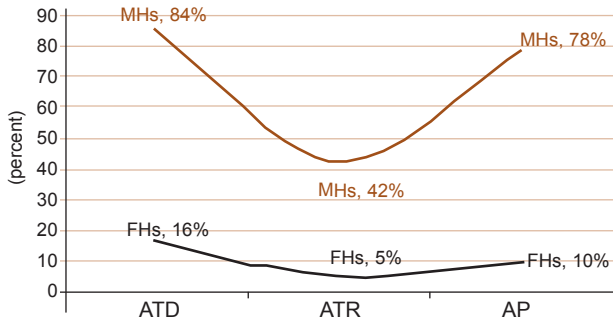
Source: SPDC Field Survey

Employment is a key variable in the calculation of overall well-being at household level. It can be seen from Chart 5.6 that only 16 percent of females were employed before displacement, which deteriorated further to 10 percent during the AP period. The impact of displacement on female employment is more severe as compared to males who have somewhat achieved the previous level of employment status. The male employment rate had decreased from 84 percent during the ATD period to 42 percent during the ATR period, rising again to 78 percent during the AP.

Analysis of Overall Well-being

Ample evidence on the successes and failures of resettlement of the affected people is found in the literature on development induced displacement. The SPDC model views resettlement as a process of transition in which the period soon after displacement (ATR) forms the basis of success or failure of the resettlement and reconstruction phase. If the ATR period presents vulnerabilities, risks and lack of coping mechanisms, the probability of success of resettlement will be less. A graphical representation of the process of displacement and resettlement is presented in Chart 5.7. It suggests that the concept of well-being could be better illustrated by the movement and shape of curve during the three periods i.e. ATD, ATR and AP. If the shape of the curve is relatively flat, the planning authorities have given due consideration for the displacement and resettlement. If the curve is U-shaped, the overall well-being of affected people declined significantly during the ATR period and the probability of a higher well-being compared with the ATD period will be less in coming years.

The analysis of the overall well-being of affectees of the LEW project has been presented from the perspective of the ATR period and its consequential repercussions on the subsequent AP period. The U-curve demonstrates that no coping strategies and rehabilitation plan had been developed to mitigate the negative impacts of the involuntary displacement. The mean value of well-being of households declined from 0.80 in ATD to

Chart 5.7
Overall Household Well-being
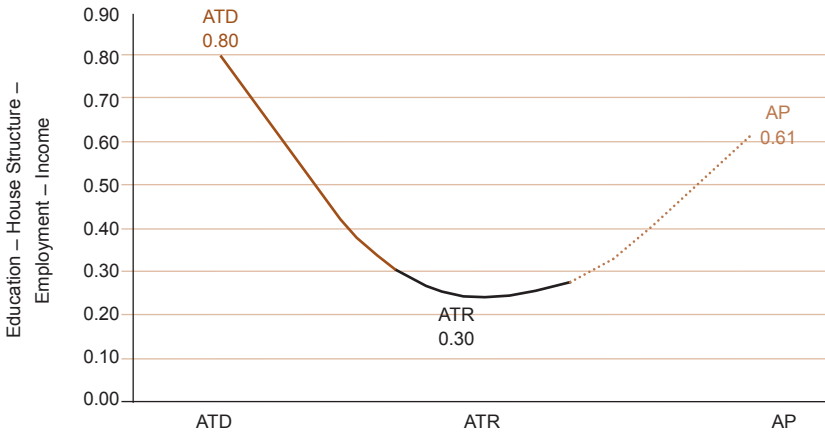
Source: SPDC Field Survey

0.30 in ATR. This shows that households are unemployed, have lost their income generation capacities, school dropout of children has increased, do not have access to basic social services, and are forced to live in shelters that do not meet their needs.

It is acknowledged that planning authorities learned some lessons from the first eviction in 2002. The second and third displacement in 2004 and 2009 was conducted with a rehabilitation plan and a coping strategy to minimize the risk of relocation. However, these late and inadequate efforts could not diminish the appalling impact of involuntary resettlement as shown in the AP period where households still lag behind the well-being status of the ATD period.

The results show that the period soon after displacement (ATR) is important both from the perspective of planning and coping strategies and setting up future directions for community welfare. The experience of the LEW resettlement plan suggests that even with substantial financial resources the government could not improve the overall well-being of people since the time span of the resettlement phase stretched over several years.

Gender-wise Comparison of Well-being

The relationship between displacement and gender is an emerging theme for development projects that involve involuntary displacement. The discussion in the preceding sections shows that if intrinsic risks and vulnerabilities are not addressed before the implementation of the project, the impact of involuntary resettlement falls disproportionately on the more marginalized among the affected people. A systematic analysis of the planning and resettlement process has demonstrated the impacts on women for the LEW project and highlighted the gender dimensions of well-being from the perspective of intergenerational impoverishment and risk and lack of resilience during the ATR period.

Chart 5.8
Well-being of Male and Female Households
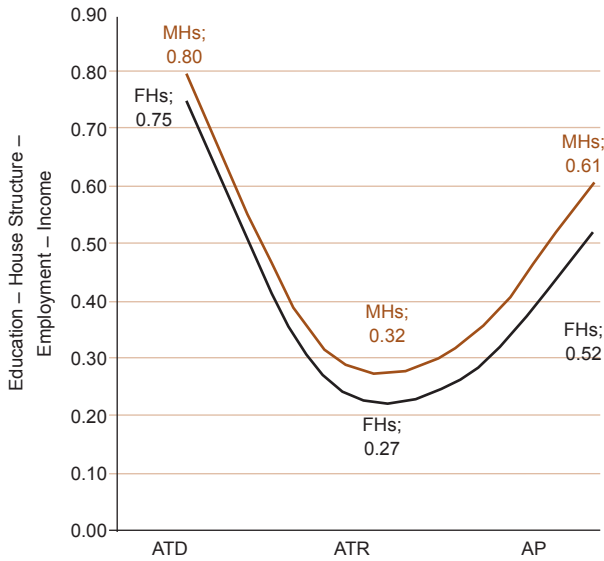
Source: SPDC Field Survey

The gendered comparison of well-being was conducted by disaggregation at the level of head of household. Chart 5.8 shows that the U-curve of female headed household (FHHs) is below the curve for male headed households (MHHs) in all the three periods. The gap between FHHs and MHHs has widened in the ATR period and this gap has further increased during the AP period. The graphical presentation of gender-wise well-being proves both hypotheses of the study. The ATR period was difficult to cope for both MHHs and FHHs, but the intensity of the distress was more vigorous for FHHs. Exposure of risks, lack of coping and adaptive capacities, lack of response mechanisms are the factors that make FHHs more susceptible compared with MHHs during the process of involuntary resettlement.

The shape of the U-curve representing intergenerational impoverishment risk is more intense in FHHs compared with MHHs. Chart 5.8 shows that the gap between FHHs and MHHs was marginal for the ATD period and increased substantially for the ATR period. From the ATR to the AP period, the gap increased from 5 percent to 9 percent. The rationale of transfer of risks to future generations in FHHs is the deterioration of two basic elements: education and employment. FHHs could not recover from loss of employment and discontinuation of education of children, both being essential for building resilience and strength at household level.

Communicative planning approach ensuring inclusiveness helps address the issues of transparency, while absence of a participatory approach causes confusion, dependency and skepticism prevalent in different stakeholders. The advantage of communication in

the early stages of planning generates debate that may be helpful for the planners in improving and finalizing the design and the process. Alternative practical solutions, removal of false expectations, assessment of responsibilities of stakeholders and enhanced technical robustness of the plan are some of the advantages of communication. The issue of displacement, therefore, needs to be discussed at length with the communities prior to eviction.

Key Findings and Policy Implications

The main conclusion emerging from the study is that redevelopment and resettlement needs to be planned, keeping in mind the concerns and interests of the affected population; particularly, marginalized groups such as women, children, elderly and sick. Gender sensitivity is particularly important in project planning and design, coordination among stakeholders, implementation, and displacement and resettlement of affected communities.

The Lyari Expressway plan was flawed from the beginning in every respect. The initial project design lacked provision for service corridors, which was added subsequently. There was no resettlement plan, which was appended later. The compensation process was chaotic, as the definition of family unit was altered mid-stream more than once. Families were dislocated and dumped in resettlement sites, where there were no shelters, water supply, etc., and which were on the outskirts of the city with no public transport. At no stage of planning or implementation, was there any consultation with any of the stakeholders.

The settlements along the Lyari river bed were slums, with poor quality housing and pitiable hygiene. The resettlement sites had the advantage of a clean environment and most of the housing built thereon is of relatively superior quality. While children played in garbage strewn spaces along the sewage swept banks of the Lyari river, they now have access to parks and playgrounds.

There have been costs, however, and they have been substantial. The Lyari settlements were in the heart of the city and provided easy access to employment centres to men and women. Many of the women were engaged in home-based work and as domestic servants in nearby upper-class homes. These employment networks were disrupted, with women suffering more than men. While men braved distances and costs to resume work, women had to remain house bound. In fact, two–thirds of women who were employed or self-employed prior to dislocation are now unemployed. Female headed households have suffered gravely.

Loss of income was coupled with higher expenditures. Longer distances entailed higher transport costs in terms of money and time. These costs were incurred not only on account of commuting for work, but also to attend schools, visit clinics, or purchase items of daily use. Water, which was available almost free at the Lyari site, has now to be purchased.

Education too has been disrupted and males have suffered more in this respect. The loss of income sources and higher expenditures at resettlement sites forced males to drop

out of school and seek work. There has, however, been some improvement in girls' education indicators on account of availability of schools in the resettlement sites, where teachers are also hired from the community.

Lack of medical facilities in the new vicinity is cited as a serious problem; with deaths reported during transportation of patients to the nearest facility, which itself is at considerable distance and transport is unavailable. Women, again, are the worst sufferers.

Socialization is a major casualty. Literally, thrown out to the outskirts of the city with erratic and unreliable public transport facilities, visits from and to relatives and friends are reduced to a bare minimum, while attendance of social events have reduced to zero almost as no transport is available after sunset and it is not possible to return home after the events are concluded.

The most difficult period was during the transition, which lasted from 6 months to 2 years. Relocated to the new sites, affected families had to live in rented premises (an additional cost) or in makeshift shelters during construction of their house. Families experienced drastic decline in income with damaging effects. While no family had zero income prior to displacement, over 40 percent of them had zero income during transition. Families experienced hunger on many occasions.

The major lessons that this analysis presents is as follows.

- Planning authorities must follow international and national guidelines, where redevelopment is likely to induce displacement, with particular emphasis on impact on women, children, elderly and sick. Key to the planning process is continuous consultation during the planning as well as implementation stages.

- Vulnerable groups – women, elderly and the sick – must be provided higher amounts in terms of compensation and assistance in relocation.

- Resettlement sites must be provided with basic infrastructure: house, water supply, schools, clinics, public transportation, etc., prior to dislocation.

- Home-based work opportunities for women must be provided at resettlement sites.

NOTES

1. The World Bank's revised Operational Policy on resettlement defines imposed "loss of access" to assets and income as a form of forced displacement. For details, see Cernea (2005).

2. See Section 12 of "Pakistan Environmental Protection Act, 1997", Pakistan Environmental Protection Agency, Government of Pakistan. http://www.environment.gov.pk/

3. Interview with Mr. Syed Mustafa Kamal, former Nazim CDGK on March 15, 2011.

4. PC-1 is a planning document prepared for public sector development projects in social sectors, including: Education, Training and Manpower; Health, Nutrition, Family Planning and Social Welfare; Science and Technology; Water Supply and Sewerage; Culture, Sports, Tourism and Youth; Mass Media; Governance; and Research.

5. Some communities are much older, such as Hasan Aulia which is a 200 year old settlement.

6. A "katchery" is a public forum. In this case, affectees were called to the CDGK offices in Civic Centre, Karachi for payment of compensation.

7. The Land Acquisition Act 1894, Board of Revenue, Government of Sindh.

8. Lower reach, which is most vulnerable in case of heavy rains, includes: Keemari, Saddar, Lyari, and Jamshed towns; middle reach includes: SITE town, Hasan Aulia, and Mianwali colony; andupper reach includes: Gulshan town, Gulberg, Liaquatabad, SITE town, and Scheme-33.

9. Cernea (1997)

10. Income groups are deflated by price index for cross-period comparison of incomes.

11. For more on dimensions of well-being, see http://wellbeing.wsu.edu/wellbeing_is.aspx

12. Converting each variable into the range between 0 and 1, that indicates the probability of 'yes' and 'no' respectively. For instance, if residential status has five options such as own, rent, subsidized rent, no rent and other, the category of 'own' is taken as 1. Similarly, for those variables that could not fall in the range of 0 and 1, the normal standardization method was applied to transform the values of variable to the range of 0 and 1. The variables of enrollment rate, employment rate and per capita income were transformed by using the following equation:

$$ v` = (v - min) \cdot \frac{max_{norm} - min_{nom}}{max_{m} - min} + min_{norm} $$

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6 | Gender Dimensions of Flood Impacts

Floods inundated a large part of Pakistan in 2010. It killed more than 1,700 people and caused unprecedented damage, inundating one-fifth of the country's land, displacing 20 million people, and costing billions of dollars through losses to infrastructure, housing, agriculture and livestock, and other family assets. The provincial and federal government, along with many international and national non-governmental organizations, led the relief efforts that helped stop hunger and disease from spreading. The World Bank and Asian Development Bank (ADB) estimated that the floods had cost the economy US$ 9.7 billion[1].

In Sindh, the floods affected nearly seven million people and thousands trapped by flood waters were in need of assistance. According to the Provincial Disaster Management Authority (PDMA), 50 percent of the total population – 1.5 million – was affected by the floods. Thatta was one of the affected districts.

Table 6.1 gives the total and flood affected number of Union Councils (UCs) and *dehs* in each of the talukas in district Thatta. Of the total 55 UCs in talukas of district Thatta, 34 UCs were affected by the floods; while more than 50 percent of the *dehs*, out of 670 *dehs*, were affected. Sujawal and Jati were the worst affected talukas of the district, where all the UCs and *dehs* were devastated by floods. In taluka Kharochan, 73 percent of *dehs* were affected. In taluka Thatta, the floods disrupted 34 *dehs* in 6 UCs. Comparatively, in taluka Shah Bunder, 39 percent of the total *dehs* were partially affected in all of its UCs. Similarly, talukas Ghora Bari, Mirpur Bathoro and Keti Bunder were also impacted partially. Mirpur Sakro was the only taluka that remained unaffected.

Table 6.1
UCs and Dehs Affected by the Floods 2010: Thatta

	Number of UCs		Number of Dehs		
	Total	Flood Affected UCs	Total Dehs	Flood Affected Dehs	Percentage Share
Thatta	13	6	69	34	49.3
Mirpur Sakro	10	0	92	0	0.0
Ghora Bari	5	4	62	20	32.3
Keti Bunder	1	1	42	4	9.5
Sujawal	6	6	73	72	98.6
Mirpur Bathoro	8	5	65	17	26.2
Shah Bunder	5	5	93	36	38.7
Jati	6	6	133	131	98.5
Kharo Chan	1	1	41	30	73.2
Thatta district	**55**	**34**	**670**	**344**	**51.3**

Source: United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)

Detailed estimates of demages to crops, housing and infrastrcutre and the rehabilitation and reconstruction cost were made. However, no systematic detailed post-flood assessment was undertaken to assess the socio-economic implications of floods, particularly the impact on women. The experience of developing and developed countries like Bangladesh, Cambodia[2], South Africa, Australia and others indicates that natural disasters, including floods, have complex socio-economic consequences for different strata of society (Babugura et al., 2010; Bradshaw, 2004; Dwyer et al., 2004; Del Ninno et al., 2001). For instance, poor households are more vulnerable than rich households and women are more at risk than men. Clearly, the floods negatively impacted affected communities in Pakistan, disrupting households' normal lives and livelihoods. This research aims to bring forward the gender dimensions of the implications of the floods on affected households in district Thatta.

Literature Review

Extreme weather and an increase in natural disasters in recent years is a product of climate change. The Assessment Report of the Intergovernmental Panel on Climate Change and the Stern Review had predicted an increase in natural disasters, with adverse affects on social and economic sectors[3]. And there has been an increase of more than 50 percent in the number of floods during the last decade. According to United Nations Office for Disaster Risk Reduction (UNISDR), natural disasters have affected 843 million people and killed about 598,000 people around the world and caused economic damages worth USD 730 billion between 2008 and 2011[4].

The increase in the intensity and frequency of floods over the last decade has raised concerns among development agencies, governments and regional organizations about the importance of having effective natural disaster management. The Hyogo Framework for Action[5], a global blueprint for disaster risk reduction efforts, was adopted by 168 governments. Similarly, South Asian countries, adopting the Male Declaration[6] agreed on a collective response to large-scale natural disasters affecting member states. SAARC has established regional centres, such as the SAARC Coastal Zone Management Centre in the Maldives, the SAARC Forestry Centre in Bhutan, the SAARC Disaster Management Centre in India and the SAARC Meteorological Research Centre in Bangladesh, to address diverse aspects of environment, climate change and natural disasters. However, little has been done by governments all over the world to reduce total greenhouse emissions or initiate disaster risk reduction strategies.

Disaster events are probabilistic events and their occurrence can only be calculated on a probability basis and there is no escape from some destruction. However, it is important to understand the consequences of such occurrences and what can be done to help the affected populace overcome the calamities natural disasters cause. Research and experience has shown that regardless of the scale of a disaster, a combination of national and international policies can help ward off disease and death faced due to natural disasters (Fraser et al., 2011; Green, 1993).

Gender Aspects of Natural Disasters

Assessments of impacts of disasters on social sectors, such as health and education, are also limited to the measurement of damages to schools and hospital buildings and tend to ignore the effects on the health and education levels of the affected populace. Long-term assessments of social sectors are critical even more so for a country like Pakistan, as it already struggles with low social development indicators, ranking 145 out of 187 countries on the Human Development Index and 115 out of 146 countries on the Gender Inequality Index (GII)[7].

Several studies indicate that women are most adversely affected by natural disasters (Enarson et al., 1998; Fordham, 1998; Morrow, 1999; Tapsell et al., 2000) are of the view that floods and other disasters can impact men and women in different and distinct ways, with women suffering markedly more than men. This is, to a large extent, due to socially constructed roles and responsibilities through which women are placed at a more disadvantageous position. Sarah Bradshaw (2004) advocates the use of a gendered approach by ensuring the inclusion of gender disaggregated data in research in the aftermath of a natural disaster, citing the example of women opting not to visit a male doctor.

Due to traditional gender roles, women are responsible for household chores such as cooking, washing, hygiene, children and raising small livestock. Children, in particular girls, share these responsibilities. Natural disasters burden them with extra workloads (Haigh and Vallely, 2010). Babugura et al (2010) have suggested that women have a greater emotional investment in the home than men. This is because women in developing countries, especially in rural areas, are mostly restricted to household responsibilities, which includes responsibility for the care of children and the elderly. In a post-disaster situation, it falls upon the women to bring the home back to normal.

Women also suffer disproportionately from health problems. Other than overall poverty rates, health and education are two sectors, where women in many developing countries still lag behind men. The poor nutritional status of women makes them more susceptible to disease and infection. Fewtrell and Kay (2006) provide evidence of floods causing bacterial, fungal and respiratory disease and gastrointestinal infection, along with ear-aches and skin rashes. And women (especially, pregnant women), the young, elderly and immune-compromised people are more vulnerable to health impacts than others (also see Flynn and Nelson, 1998; White et al., 2002; WHO, 2004).

Disasters can also have an impact on the mental health of the affectees and women may suffer more mental strain in certain situations due to cultural norms. Women already in poor health prior to a disaster are more likely to be traumatized by it. When whole families move to relief camps, women face greater challenges in adapting to the new environment. Problems include harassment, lack of security, unreliable water supplies (which increases their workload) and lack of privacy (Morrow, 1999).

Nazish Brohi (2010), in her study based on case studies, shares the experiences of flood-affected women. The study illustrates how women's hygiene had been affected due to floods. For example, in Kalabagh district, "Baghat Bibi, a sixty year old woman, with her

three daughters and three daughters-in-law, visited the river … and submerged themselves in the water to clean themselves and their clothes and then dried themselves while wearing the same clothes … it is reported that the they had been doing it for over three weeks". As women in rural areas are not used to moving about in public spaces other than their villages, girls and women are often embarrassed to be seen accessing lavatories in the camps. Such overwhelming circumstances coupled with cases of harassment can have profound impacts on mental health.

The Preliminary Gender Needs Assessment report by UNIFEM[8] (UN WOMEN) notes that women were under severe stress as the devastation caused by the floods destroyed their limited assets, worsened their personal security situation, and changed their responsibilities as they were forced to respond to emergency conditions. The report stresses upon the fact that even though women's health is vital to the well-being of their families, they tend to place their needs last. It also affirms that in certain provinces, cultural norms, such as *purdah*, limits women from being able to express their needs. Additionally, women also tend to have a chance of going unnoticed in the compensation process, as their economic contributions are usually unseen.

The women interviewed by the Internal Displacement Monitoring Cell in Sindh alleged that access to income-earning opportunities has been their biggest challenge and a major concern for female heads of household. The slow pace of recovery from the extensive damage the floods caused to the agricultural sector was expected to have a major impact on women's employment. Women also lacked the documentation to prove their property rights. The female-headed household reported great difficulty in claiming inheritances, land and possessions left at home when they fled. Women without adult men in the household also fail to access relief supplies, as they cannot jostle with the men around distribution points. Difficulties were faced by women and girls, who could not go out to receive emergency food aid without being threatened for violating *purdah*. The UNIFEM (UN Women) assessment also quoted women reporting sexual harassment in camps, where different tribes, families and village folk were placed together. Women also complained that most health services available in the aftermath of the floods concentrated on primary health care with little specialized focus on reproductive health for women. The literacy rates of women in developing countries are much lower than their male counterparts. A UNICEF study[9], in the aftermath of the 2010 floods, indicated gender disparities in Thatta in primary level enrolment before and after the floods.

State of Demography

Flooding causes both tangible and intangible losses due to which society, in general, and the affected population, in particular, incurs direct and indirect costs. Economic infrastructure, public and private, is destroyed or damaged, leading to loss of productive capital and in turn leading to loss or reduction of incomes. The pace of social and economic development slows and intra-household changes modify the living patterns of the affected population.

This section limits itself to the implications of floods on the education and health of the sample population. Enrolment ratios and patterns seen in the literacy rates before and after the floods have been compared and analyzed. Similarly, prevalence of sickness or injury during the two time periods has also been examined along with the change in the profile of households.

In order to set the context for education and health analysis, it is important to understand the various aspects of the demography of the flood affected areas, i.e., changes that occurred in the sex ratio, household size, proportion of males and females, age-specific population, dependency ratio and the reasons for change.

Family Size

One important aspect of demographic change is in family size, as it is a crucial indicator for targeting provision of public services at the household and community level. The decomposition of changes in family size explains the reasons for growth in family size. Family size increased from 5.97 to 6.21 (Table 6.2) persons between the two time periods and the sex ratio declined in favour of women. The reason for the higher proportion of female entrants and low proportion of females leaving the family that contributed towards a rise in female proportion are also given in Table 6.2.

In the majority of cases, the addition has been due to birth after the floods. Only one percent of the females became part of a family post-floods due to marriage. This negates the popularly held view that floods increased child marriages. The exclusions from the family were mainly due to the death of a household member (83 percent), followed by 'left home due to marriage' (9.4 percent) and 'left home due to work/employment' (5.7 percent). In 2 percent of the cases, the household member opted to leave the home due to family conflict.

None of the female household members left the family for employment as against 9 percent of the males who did so. The socio-cultural norms being followed in rural areas prohibit and restrict the female's movement outside the house, even for employment. To supplement the family income, women are predominantly reliant on the informal sector and displacement disabled them from participating in informal work. However, even the large-

Table 6.2
Changes in Family Size

	Male	Female	Both
Decomposition of Changes (Number of Persons)			
Members per household BF	3.12	2.85	5.97
Entrants per household (plus)	0.16	0.18	0.34
Person left family per household (minus)	0.06	0.04	0.10
Members per household ATS	3.22	2.99	6.21
Reasons for Changes (Percent)			
for Inclusions:			
Born after 2010 Flood	100.0	98.9	99.4
Became family member after marriage	0.0	1.1	0.6
Total	**100.0**	**100.0**	**100.0**
for Exclusions:			
Death	84.4	81.0	83.0
Marriage	3.1	19.0	9.4
Due to Work	9.4	0.0	5.7
Family conflict	3.1	0.0	1.9
Total	**100.0**	**100.0**	**100.0**

Source: SPDC Survey 2012

Chart 6.1
Percentage Distribution of Reason of Death After the Floods
(Male and Female Respondents)

(Percent)
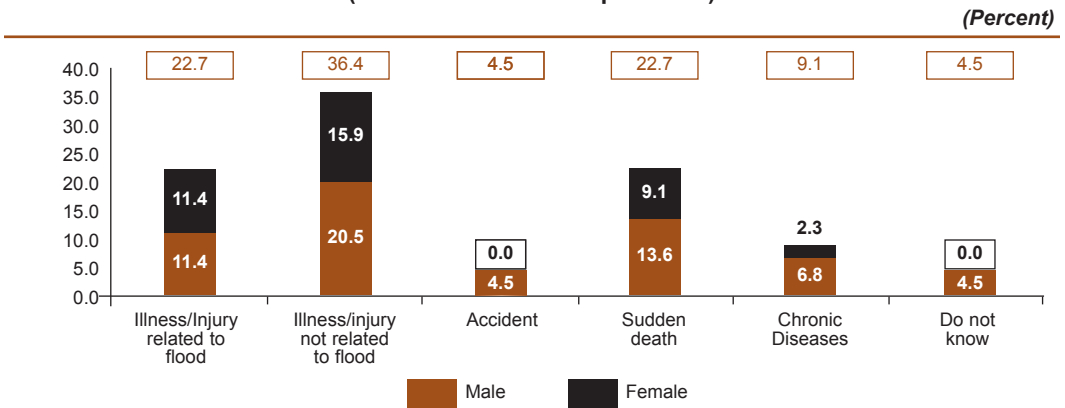
Source: SPDC Survey 2012

scale devastation caused by the floods did not compel the 'displaced and later rehabilitated' females to step out of their enforced 'comfort zone' and work.

Chart 6.1 shows the gender distribution of the reasons of deaths during the post-flood period. It can be seen that around 23 percent of the deaths were caused by flood-related infections or diseases that spread due to stagnant waters and injuries caused by collapse of houses and other buildings. Equal proportions of deaths were reported among men and women, indicating equal threats to the lives of both. There were no deaths due to drowning.

In over two-thirds of cases (36.4 percent), deaths were not directly related to the floods, but caused by illness and injuries. The proportion of males is 5 percentage points higher and was more prominent for ages between zero-four years and ages between 70-85 years. 'Accident' was cited as a cause of death in some 5 percent of cases – all affecting men. 'Sudden death' was reported in 23 percent of cases. As can be seen, it was higher in the case of males (13.6 percent). The reason cited was sudden heart failure or natural death or reason unknown to the respondents. Chronic diseases, such as hepatitis and cancer, were reported in 9 percent of cases.

Ratio of Male and Female Population

Theoretically, demographic changes, as a consequence of floods, are mainly due to deaths either by drowning or an increased incidence of illness and/or by way of early marriages, especially in the case of girls; and outward migration caused by economic deprivation and the loss of income and employment opportunities. Generally, men of the affected households migrate to other cities in non-affected areas in search of work or employment, leaving the women to shoulder the responsibilities of the family.

The survey findings show a slight change in the sex ratio and proportions of males and females living in the household. The sex ratio decreased slightly from 1.10 to 1.08,

showing a decline in the proportion of the male population (0.02 points). Yet, however, the proportion of the male population remains higher than the female population and reasons attributed to this are poor health and the low nutrition levels of women in Sindh. The changes, howsoever slight they may be, cannot be viewed as a positive development, as they have tended to added to the burden of family and household responsibilities for women in the absence of male members.

Age Profile

Children under 15 years of age constituted nearly half the affected population: 46 percent before the floods and 47 percent at the time of the survey. The share of infant population (0-1 years) increased from 1.5 percent to 5.6 percent, indicating a robust birth rate; with most births taking place in the camps (Table 6.3). The conclusion that can, perhaps, be drawn is significantly lower infant mortality rate relative to pre-floods births in villages; thanks to the availability of medical attention in the camps to expectant mothers and to the new born.

Another notable aspect of demographic change is somewhat higher longevity for women and girls. The increase in the share of girls among infants (0-1 years) is marginally higher than that of boys in the same age group. The share of girls in the 10-14 age group has increased by one percentage point, while that in the age group 60 plus has risen by 0.6 percentage points.

The data shows that below 15 years of age population increased from 46 percent to 47 percent and 60 years and above population increased from 3.8 to 4.4 percent. Women primarily contributed in the increase of 60+ age population i.e. increase of only 0.1 percentage points in men and 0.6 percentage points in women. The increase in the proportion of children and 60-plus age population is reflected in the increasing dependency ratio from 99 to 106. The economic implications of increased dependency are mainly borne by the male adult population.

Table 6.3
Percentage Distribution of Household Members by Age Groups and Sex

(Percent)

	Before Flood			At the Time of Survey		
	Male	**Female**	**Both**	**Male**	**Female**	**Both**
Infants (0-1)	0.8	0.8	1.5	2.7	2.9	5.6
Children (2-4)	7.5	6.9	14.4	5.0	4.9	9.9
Primary school-going age (5-9)	9.9	8.9	18.8	11.5	8.7	20.2
Secondary school-going age (10-14)	6.0	5.2	11.2	5.1	6.2	11.3
Youth (15-24)	8.7	8.0	16.6	8.2	7.2	15.4
Adults (25-44)	12.4	12.4	24.8	12.3	12.3	24.7
Adults (45-59)	4.5	4.4	8.9	4.3	4.2	8.5
Age 60 and above	2.6	1.2	3.8	2.7	1.8	4.4
Children (0-14)	24.1	21.7	45.9	24.4	22.7	47.0
Adult (15-59)	25.5	24.9	50.4	24.8	23.8	48.6
Age 60 and above	2.6	1.2	3.8	2.7	1.8	4.4
All age groups	52.2	47.8	100.0	51.8	48.2	100.0

Source: SPDC Survey 2012

Damages Caused by the Floods

The floods caused extensive damage to houses and the surroundings, agricultural/grazing land, boat, etc. Table 6.4 shows that more than 10 percent of respondents reported damage inside the house in Thatta, Sujawal and Shah Bunder talukas. Responses reporting damage outside the house range from over 90 percent in Keti Bunder, Ghorabari, and Kharochan talukas to as low as 76 percent in Thatta and 59 percent in Sujawal. Respondents in the latter two districts also report damage to boats.

Table 6.5 highlights the average cost of damage. Almost all respondents from all affected talukas asserted that the structure of their house, shop and/or workplace was damaged. The average cost of the damage to building structures varies from a high of Rs. 169,400 in Thatta to a low of Rs. 68,900 in Jati. Between 53 percent of respondents in Shah Bunder to 89 percent in Thatta reported damage to house/workplace contents; with average cost ranging from a high of Rs. 77,400 in Kharochan to a low of Rs. 33,900 in

Table 6.4
Property Affected by Flood Water (Female Respondents)

(Percent)

Taluka	Area inside house	Area outside house	Grazing or Agricultural land	Boat	No Damage	Total
Thatta	12.1	75.8	0.0	12.1	0.0	100
Sujawal	10.3	58.8	4.4	26.5	0.0	100
Jati	7.6	72.2	3.8	16.5	0.0	100
Mirpur Bathoro	7.8	87.5	3.1	1.6	0.0	100
Keti Bunder	3.1	96.9	0.0	0.0	0.0	100
Ghorabari	3.1	96.9	0.0	0.0	0.0	100
Kharo Chan	3.2	95.2	0.0	0.0	1.6	100
Shah Bunder	14.1	84.4	0.0	0.0	1.6	100
Total	8.0	82.0	1.6	8.0	0.4	100

Source: SPDC Survey 2012

Table 6.5
Average Cost of Financial Damage Caused by the Floods (Rupees) (Male Respondents)

	Damage to Building		Damage to Contents		Other Damages		Total	
	HH (%)	Av. Cost (Rs.)	HH (%)	Av. Cost (Rs.)	HH (%)	Av. Cost (Rs.)	HH (%)	Av. Cost (Rs.)
Thatta	98.5	169,400	89.2	64,100	86.2	33,000	100.0	252,400
Sujawal	100.0	92,500	65.2	61,000	44.9	38,400	100.0	149,500
Jati	100.0	68,900	67.1	70,300	51.9	25,800	100.0	129,500
Mirpur Bathoro	100.0	92,500	60.9	52,300	50.0	22,000	100.0	135,400
Keti Bunder	100.0	94,100	56.3	33,900	56.3	68,900	100.0	151,900
Ghorabari	100.0	99,400	69.2	31,000	47.7	17,700	100.0	129,300
Kharo Chan	96.8	82,700	60.3	77,400	42.9	22,100	96.8	140,700
Shah Bunder	93.8	75,000	53.1	39,300	35.9	11,700	100.0	95,400
Total	98.6	96,400	65.9	56,100	51.7	28,800	99.6	147,400

Source: SPDC Survey 2012

Keti Bunder. With regard to damage to other assets, e.g., boats, 86 percent of respondents in Thatta and 36 percent in Shah Bunder reported damage at average cost ranging from Rs. 68,900 in Keti Bunder to Rs. 11,700 in Shah Bunder.

Disasters are, at times, said to bring gains to individuals and societies. For example, floods increase productivity of agricultural land and produce higher fish catch after the floods. However, respondents in Thatta district do not report any such gain, other than financial gains from government compensation payments – 'Watan Card[10]' and 'Benazir Income Support Card[11]' – and assistance from non-government organizations. Over 50 percent of the respondents in the affected talukas reported receiving financial benefits; the highest being 84 percent in Keti Bunder, followed by 60 percent in Jati.

Respondents were then inquired about whether damages to their homes and household possessions were measured by an official assessor after the floods. More than 75 percent of the respondents in each of the taluka replied in the negative. This proportion was over 90 percent in talukas Jati, Mirpur Bathoro and Ghorabari. All respondents from Keti Bunder responded in the negative. A mere 10 percent of the total respondents said that the damage was measured by an official assessor.

This indicates that no proper assessment has been undertaken by the government. Such an assessment would have facilitated the proper identification of the affectees. In the absence of it, there is a chance that a person or household with less damages got comparatively higher government support, while a person or household with higher damages got less support.

Impact on Physical and Economic Infrastructure

Effects of natural calamities are never gender neutral. The floods in Thatta had detrimental effects on the livelihoods and well-being of women and men. A gendered analysis of the impact of the floods on the physical and economic infrastructure and other damages is, therefore, in order to help in understanding coping strategies adopted by the affected communities and the precautionary measures taken in case of future flooding.

The survey raised questions about physical and economic degradation and vulnerability of men and women as a result of floods. Loss of property, possessions, businesses, employment and relocation (disaster-induced migration or resettlement) of the communities are some of the issues reported from the disaster areas. A gender analysis of the data collected suggests that flooding resulted in issues of mobility, food insecurity and the challenge of adjusting to the conditions prevalent in new areas. Issues of displacement in the case of the affected female population were further compounded by the traditional concept of '*chaddar* and *char diwari*'[12]; whereby, the socialization of the females, including girls, is restricted to the immediate family/community members.

Measures Adopted for Vigilance

The gendered impacts of floods can be minimized by providing timely warnings about the intensity of floods and suggesting appropriate coping mechanisms. In this regard, the

survey also tried to explore the measures undertaken by the authorities to alert households prior to or at the time of floods. The male respondents were asked whether they received any call to leave their homes before the floods.

Table 6.6 indicates that over 60 percent of respondents were not intimated, informed or cautioned by any government or non-government department/office. Responses acknowledging being alerted varied from a low of 25 percent in Sujawal to a high of 66 percent in Keti Bunder. The difference was on account of the fact that the floods hit Thatta district when an unanticipated pre-dawn breach occurred in the river dyke. Sujawal, the closest tehsil to the breach site, received the least warning and Keti Bunder, farthest from the breach site, received the maximum warning. Out of those who received the alert, 23 percent said that they believed it immediately, followed by those who contacted their friends or family to consult. Some also said that they did not pay heed to the call.

Table 6.7 shows that 43 percent of respondents were informed by local government offices, 30 percent by family and friends, 9 percent by political parties, and 6 percent by

Table 6.6
Source of Alert Call Received

(Percent)

Taluka	Local Government	Police/ Army	NGO/ CBO	Family/ Friends	Electronic Media	Political Party	Mosque	Total
Thatta	24.0	16.0	8.0	32.0	4.0	16.0	0.0	100
Sujawal	29.4	0.0	0.0	52.9	17.6	0.0	0.0	100
Jati	35.5	0.0	0.0	48.4	6.5	9.7	0.0	100
Mirpur Bathoro	17.6	0.0	0.0	64.7	11.8	0.0	5.9	100
Keti Bunder	52.4	33.3	0.0	0.0	0.0	14.3	0.0	100
Ghorabari	28.6	19.0	0.0	28.6	4.8	4.8	14.3	100
Kharo Chan	77.4	9.7	0.0	12.9	0.0	0.0	0.0	100
Shah Bunder	56.3	0.0	0.0	15.6	9.4	18.8	0.0	100
Total	43.1	9.2	1.0	29.7	6.2	8.7	2.1	100

Source: SPDC Survey 2012

Table 6.7
Source of Suggestions Received to Cope with the Floods

(Percent)

Taluka	Relatives	Friends/ Neighbors/ Co-workers	Authorities	Army	CBOs	Self	Party	None	Total
Thatta	30.8	40.0	1.5	6.2	6.2	12.3	0.0	3.1	100
Sujawal	24.6	44.9	5.8	5.8	5.8	1.4	1.4	10.1	100
Jati	34.2	53.2	5.1	1.3	1.3	2.5	0.0	2.5	100
Mirpur Bathoro	46.9	28.1	0.0	4.7	4.7	3.1	1.6	10.9	100
Keti Bunder	28.1	12.5	3.1	28.1	6.3	9.4	0.0	12.5	100
Ghorabari	16.9	21.5	0.0	6.2	4.6	38.5	1.5	10.8	100
Kharo Chan	30.2	23.8	1.6	6.3	0.0	28.6	0.0	9.5	100
Shah Bunder	29.7	29.7	0.0	0.0	0.0	25.0	1.6	14.1	100
Total	30.3	33.7	2.2	5.8	3.4	15.0	0.8	8.8	100

Source: SPDC Survey 2012

the electronic media. It is important to note that, despite the growth of NGOs/CBOs during the last couple of decades, merely one percent of the affectees received the warning from them.

In Kharochan, 77 percent of the respondents said that they received the alert call from the local government, 13 percent were cautioned by family and friends, while 10 percent were intimated by the police or army. In Mirpur Bathoro, 18 percent acknowledged receiving the alert call from local government, 65 percent mentioned family and friends, 12 percent electronic media, while 6 percent received the information via announcements made by mosques of their areas.

Finally, the respondents were asked about the level of preparedness in case of floods in the future. In spite of the recent experience, however, 72 percent of respondents confessed to not being prepared. In talukas like Mirpur Bathoro and Keti Bunder, over 80 percent of respondents said that they were not prepared. Overall, as against the 72 percent, only 24 percent said that they were prepared to cope in case of future floods.

Isolation of Communities

Community isolation[13] is one of the foremost consequences of severe floods. Communities in all the affected talukas remained isolated for more than 60 days; with the isolation period being the longest for taluka Thatta, where the communities were forced to reside away from their villages for more than three months.

In response to whether the flood water resulted in community isolation, almost 80 percent of respondents in all the affected talukas responded in the affirmative. As can be seen in Chart 6.1, the highest proportions of affirmative responses were in taluka Sujawal (86.8 percent) and taluka Ghorabari (86.2 percent), followed by Thatta (81.8 percent).

Isolation of Houses

Almost all respondents of the surveyed talukas reported that their houses remained flooded and were separated from their houses for several eight weeks. As shown in Chart 6.3, respondents in talukas Mirpur Bathoro, Ghorabari, Kharochan and Shah Bunder mentioned that their houses remained cut off from the other neighbouring houses for 90 to more than 120 days. All the respondents belonging to the talukas of Sujawal, Jati, Mirpur Bathoro and Ghorabari also responded in the affirmative.

Female responses indicate more severity in regard to the difficulties faced after the floods. It is important to remember that the culture promoting interdependency is more prevalent among the population living in underdeveloped rural areas – they share their problems and even basic necessities such as food. For children also, it resulted in loneliness, particularly, since they were unable to play together. Altogether, the two types of isolation caused fear and loneliness among the affected communities.

Isolation of Agriculture/Grazing Land

Chart 6.4 represents respondent perspective on the isolation of agriculture/grazing land caused by the floods. About 58 percent of respondents in talukas Thatta and Sujawal said

Chart 6.2
Isolation of Communities Caused by the Floods

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
(days)	103	73	63	74	74	81	74	93	
No	18.2	13.2	27.8	26.6	34.4	13.8	14.3	18.8	20.2
Yes	81.8	86.8	72.2	73.4	65.6	86.2	85.7	81.3	79.8

■ Yes ■ No
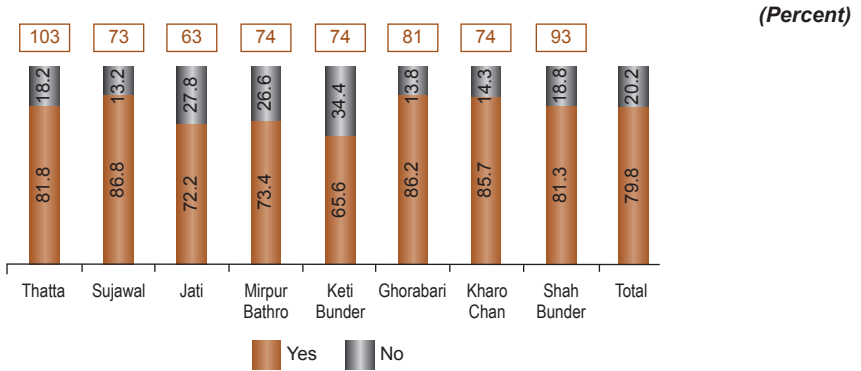
Note: Boxes indicates number of days. | Source: SPDC Survey 2012

that their agriculture land was flooded and remained isolated for two months or more.

Chart 6.3
Isolation of Houses Caused by the Floods

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
No	3.0	0.0	0.0	0.0	3.1	0.0	1.6	7.8	1.8
Yes	97.0	100.0	100.0	100.0	96.9	100.0	98.4	92.2	98.2

■ Yes ■ No
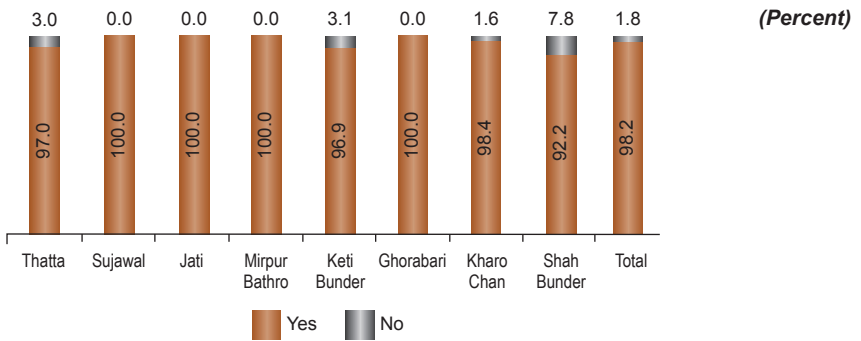
Source: SPDC Survey 2012

Chart 6.4
Isolation of Agriculture/Grazing Land Caused by the Floods

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
No	41.5	42.0	54.4	62.5	90.6	86.2	77.8	85.9	65.5
Yes	58.5	58.0	45.6	37.5	9.4	13.8	22.2	14.1	34.5

■ Yes ■ No
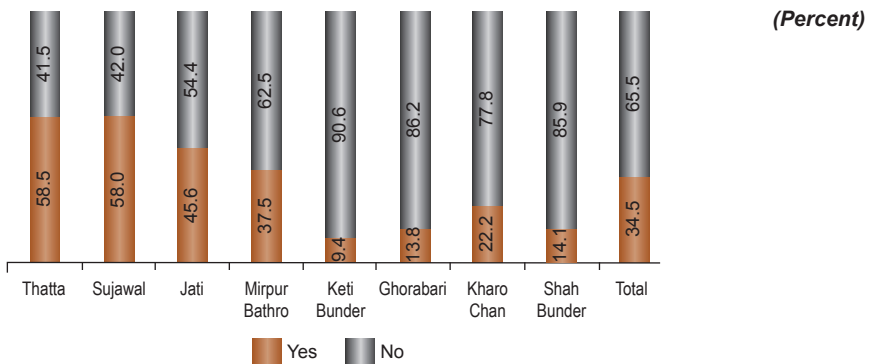
Source: SPDC Survey 2012

Unable to cultivate their lands, they lost their major source of earning. This negatively affected their well-being and further pushed them below the poverty line. However, two-thirds of the respondents in district Thatta revealed that they were not affected by this situation, as 91 percent of respondents in taluka Keti Bundar and 86 percent in Ghorabari and Shah Bunder did not possess or cultivate agricultural land.

Isolation of Businesses/Place of Work
Regarding the isolation of business or workplace caused by the floods, 93 percent of respondents in all the talukas responded in the affirmative. All of the respondents belonging to taluka Mirpur Bathoro and Ghorabari responded in the affirmative and in neither of the talukas less than three months were mentioned. Similar to isolation of agricultural and grazing land, isolation of the workplace, shops, restaurants and the like also affected the major source of earning in these areas. As women living in these geographical areas usually do not work outside of their homes, the question was not posed to them.

Impact on Employment and Well-Being

The 2010 floods not only caused extensive damage to the physical and economic infrastructure, they also negatively impacted general well-being of the men and women residing in the affected areas. The most crucial aspect of the impact is the deterioration seen in the livelihood of the population caused by the substantial decrease in employment opportunities.

Women were impacted more than men on account of unequal and inequitable division of labour, along with a lack of access and control over material and non-material resources. Women in Thatta were disproportionately engaged in household domestic work, unpaid work, and underpaid non-formal sectors of economy even prior to the floods and the situation further deteriorated after the floods. Economically disempowered, their role in decision making was also limited at all levels.

Labor Force and Employment
The labour force divides the entire working age population in to the following three broad categories: employed, unemployed and economically inactive population. According to the Labour Force Surveys (LFS), working age population consists of all persons of age 10 years and above. Contrary to the interpretation of LFS, population in the age group 10-14 years is considered child labour as per international labour laws. In order to avoid the inclusion of child labour in subsequent analysis of employment, the 10-14 age group has been excluded.

Employment Share Before and After Floods
Table 6.8 gives the comparison of the proportion of employed in the total sample population residing in the district during the two time periods, i.e., before the floods and at

Table 6.8
Share of those Employed in Surveyed Areas

(Percent)

	Employed Before Floods (%)			Employed ATS (%)		
	Both	Male	Female	Both	Male	Female
Thatta	58.2	40.1	18.1	52.6	40.5	12.1
Sujawal	68.9	39.8	29.2	60.0	42.7	17.3
Jati	68.4	43.9	24.6	59.1	44.4	14.7
Mirpur Bathoro	65.4	43.4	22.0	56.9	43.6	13.3
Keti Bunder	66.7	43.5	23.1	59.1	44.5	14.5
Ghorabari	48.8	42.6	6.2	48.4	42.3	6.0
Kharo Chan	56.8	41.6	15.1	55.9	41.0	14.9
Shah Bunder	52.8	44.4	8.4	53.2	43.2	10.0
Total	**60.6**	**42.3**	**18.3**	**55.5**	**42.8**	**12.7**

Source: SPDC Survey 2012

the time of the survey. Prior to the floods, 61 percent of the population (aged 15 years and above) was employed: 42 percent males and 18 percent females. Taluka-wise, the highest share of employed women was found in Sujawal (29.2 percent) and the lowest share in Ghorabari (6.2 percent). While these shares clearly indicate fewer employment opportunities for the females of the district prior to the floods, it is important to compare them with those at the time of the survey.

The overall employment situation has remained more or less constant for men, but has deteriorated for women by more than five percentage points. A comparison of taluka-wise employment share indicates that the highest decrease in employment opportunities for women occurred in Sujawal, where it came down from 29 percent to 17 percent.

Employment to Population Ratio Before and After the Floods
Chart 6.5 presents a comparison of the female employment rate to population ratio during the two periods. Unfortunately, overall female employment to population ratio declined from 38 percent to 26 percent. The trend indicates a decline of an alarming 12 percentage points. The decline occurred in all the talukas except Shah Bunder – where a slight improvement occurred. The maximum decline was observed in taluka Sujawal, where it declined from 59 percent to 35 percent – a decline of 24 percentage points. Other talukas, where a considerable decline occurred, include Jati (21 percentage points), Mirpur Bathoro (18 percentage points) and Keti Bunder (16 percentage points).

Similarly, Chart 6.6 shows a comparison of male employment rate to population ratio. It shows that male employment to population ratio improved marginally from 82 percent to 83 percent. However, the pattern is not similar in all of the affected talukas. It increased in Sujawal, Jati, Keti Bunder and Shah Bunder; with the highest increase in Sujawal (5.8 percentage points) and the lowest in Shah Bunder (0.8 percentage points). In the remaining talukas, male employment to population ratio declined by 0.3 to 1.4 percentage points. The

Chart 6.5
Taluka-wise Comparison of Employment to Population Ratio of Women

(Percent)
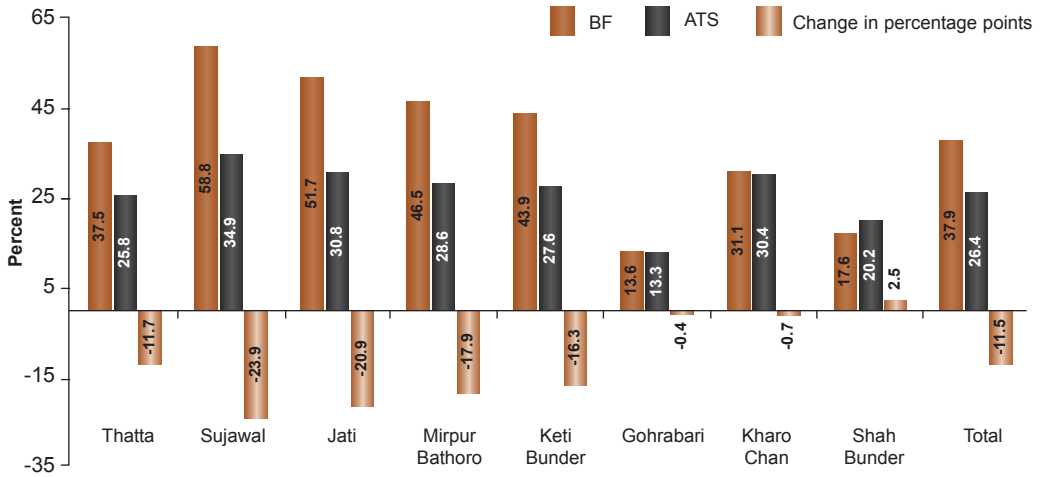
Source: SPDC Survey 2012

Chart 6.6
Taluka-wise Comparison of Employment Rate to Population Ratio of Men

(Percent)

Source: SPDC Survey 2012

findings of the two charts above clearly indicate a relatively greater negative impact on female employment opportunities and it appears that men have been employed where women were employed prior to the floods.

Table 6.9 is based on the responses of those who were employed prior to the floods of 2010 and are now unemployed. Reflected in the table are their views on the reason(s) for losing their jobs. The table indicates that 48 percent of female respondents felt that additional and peculiar[14] household responsibilities increased during the post-flood perio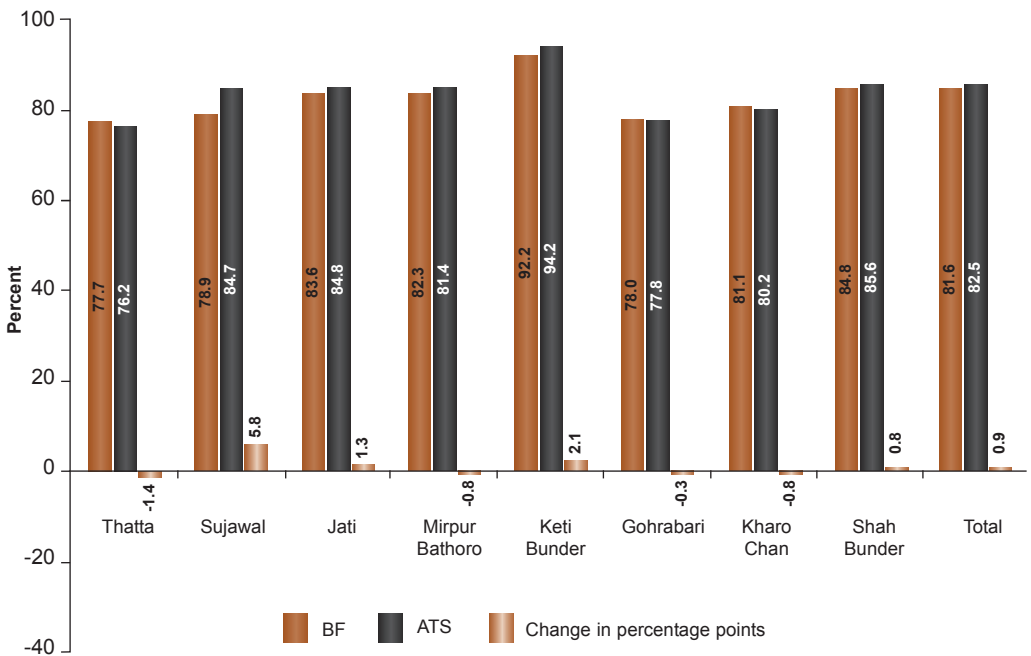d, while only 4 percent of men cited the same reason. The majority (60.9 percent) of the male respondents who were not working said that their workplace was flooded and, hence, fewer employment opportunities were available in the immediate post-floods period. A greater percentage of females cited illness and injury as the reason for being unemployed. About 13 percent of male respondents cited lack of education as a reason.

Impact on distributionb of unpaid work

Given that employment opportunities decreased, particularly for women, they were asked about the nature of change that occurred in paid or unpaid work. They were also asked to comment on the role and responsibilities of both the sexes in carrying out certain household and work-related activities during the two periods i.e. before and after the floods.

The System of National Accounts (SNA)[15] is the international system followed all over the world, including Pakistan. The system divides work-related activities into two broad categories: (1) paid activities that fall within the 'production boundary' and (2) unpaid care work. The findings presented in Table 6.10 help in understanding the distribution of responses on the role and responsibilities assigned and assumed by male and female affectees. It can be seen that bulk of the paid productive work was performed by males before and after the floods, while unpaid care work was performed by females before the floods and increased after the floods.

More than 80 percent of female respondents reported that activities like meal preparation, serving food, collecting water have always been performed by females at all

Table 6.9
Reasons for Losing Paid Work

(Percent)

Type of health care provider	Male	Female
Increase in household responsibilities	4.3	48.0
Lack of employment opportunity	8.7	20.0
Place of work was flooded	60.9	12.0
Illness/injury	4.3	12.0
Educational engagements	13.0	0.0
Others	8.7	8.0
Total	**100**	**100**

Source: SPDC Survey 2012

Table 6.10
Role by Gender in Performing Certain Household and
Work-Related Activities: Female Perspective

(Percent)

	During Normal Time					After Flood 2010				
	Male	Female	Both	None	Total	Male	Female	Both	None	Total
Extended SNA Productive work										
Meal preparation & serving	2.6	84.2	13.2	0.0	100	2.5	86.9	10.7	0.0	100
Collecting water	4.4	83.0	12.6	0.0	100	3.5	86.4	10.1	0.0	100
Collecting wood for cooking	53.9	23.8	21.2	1.2	100	54.0	25.9	18.9	1.2	100
Extended SNA Care Work										
Taking care of children	1.4	55.9	37.3	5.4	100	2.1	57.0	35.4	5.6	100
Taking care of sick & old	2.2	51.9	42.7	3.2	100	2.1	53.1	41.6	3.3	100
Teaching children	7.6	28.9	26.3	37.1	100	5.6	29.8	26.5	38.1	100
Activities within 'Production Boundary' of the SNA										
Livestock rearing	34.1	5.2	10.4	50.3	100	31.5	6.0	9.9	52.6	100
Making fishing net	21.6	0.4	1.0	77.0	100	19.3	0.6	1.0	79.0	100
Poultry rearing	12.8	11.4	6.2	69.7	100	10.1	13.2	5.6	71.2	100
Agricultural paid labour	72.3	0.4	4.6	22.8	100	71.6	0.6	4.7	23.0	100
Non-agriculture paid labour[7]	83.0	1.0	4.4	11.6	100	82.3	1.2	4.7	11.7	100
Agricultural unpaid work[8]	69.7	1.0	4.2	25.1	100	68.5	1.0	4.3	26.1	100
Fish farming	15.6	0.8	0.2	83.4	100	13.2	1.0	0.2	85.6	100
Fishing	23.4	0.8	0.4	75.4	100	21.2	1.0	0.4	77.4	100
Shrimp farming	7.8	0.8	0.2	91.2	100	4.8	1.0	0.2	94.0	100
Small business	18.0	0.8	0.2	81.0	100	15.3	1.0	0.4	83.3	100

Source: SPDC Survey 2012

times and under all conditions. In comparison, almost 56 percent said that child care was their responsibility, while over 35 percent thought it to be the responsibility of both males and females.

Non-agricultural paid and unpaid labour, according to most of female respondents, is invariably performed by men. The analyses indicate that the traditional division of labour prevails in the rural economy of Thatta, where males were engaged mostly in paid activities and females in unpaid work. The floods in Thatta further reinforced this gender division of labour.

Sources of Income and Gender Distribution of Employment

Chart 6.7 indicates that over 30 percent of the income in flood affected areas came from private employment, with most of it concentrated in taluka Jati (72 percent). The second largest source of income was cultivation of crops , which accounted for over 19 percent of total income. The other significant source of income include labour earnings on daily or weekly basis (16.4 percent) and transport services (13.6 pecent). Only 3 percent of income is accrued from home-based work

Chart 6.8 shows the distribution of household monthly expenditures in major categories. It depicts that slightly over 50 percent spent money on food and beverages,

Chart 6.7 Sources of Income (%)	Chart 6.8 Distribution of Expenditures (%)

Chart 6.7 Sources of Income (%)

- Fishing/Fish Culture 3.7
- Shops 2.6
- Self Employed 3.0
- Public Sector Employment 5.3
- Private Jobs 30.3
- Other Services and Transport 13.6
- Home based works 3.1
- Labour All Types 16.4
- Others 0.5
- Crops 19.2
- Livestock and Poultry 1.4

Chart 6.8 Distribution of Expenditures (%)

- Housing 4.7
- Savings 3.4
- Lighting & other utilities 5.4
- Food & Beverages 50.6
- Transportation, Communications, 5.8
- Personal daily use items, 6.3
- Clothing 7.8
- Social Functions 4.4
- Health Care & Medicines, 10.2
- Education 1.3

Source: SPDC Survey 2012

followed by health care and medicines (10.2 percent), clothing (7.8 percent), personal daily use items (6.3 percent), and transport and communications (5.8 percent). Among the other categories, expenditures on fuel accounted for 5 percent, housing 5 percent and on education a meagre one percent of total expenditure.

Table 6.11 presents the female perspective about the effects of floods on the well-being of males, females and children. The indicators were carefully identified to draw a comparison of the overall well-being of men, women and children. According to the females, the most severe impact in the case of men was felt on the availability of safe drinking water (91.9 percent), food security (90.7 percent) and their source of income (90.5 percent). The most severe impact in the case of women was felt on health (98.4 percent), availability of safe drinking water (98.2 percent) and food security (97.8 percent). Health of children was the most affected (91.1 percent), followed by food poverty (88.7 percent).

As far as gender dimensions of the effects of the floods on family well-being are concerned, it emerged that floods affected women more severely in all facets of family well-being. As can be seen, income is the only indicator where the female respondents claimed of being less adversely affected than males. Other well-being indicators quoted by them indicate that the percentage of women affected was higher than that of men.

Table 6.11
Effect on Family Well-Being - Female Perspective (%)

Reasons	Male	Female	Children
Food Security	90.7	97.8	88.7
Health	86.2	98.4	91.1
Education	26.3	35.9	51.6
Safe Water	91.9	98.2	68.1
Sanitation	88.7	96.1	44.4
Homestead	83.8	93.2	41.4
Income Sources	90.5	79.5	-
Social Security	84.6	89.3	37.9

Source: SPDC Survey 2012

Impact on Education

According to the Department of Education and Literacy, Government of Sindh[16], 21 percent of the total schools of district Thatta were damaged due to floods and proportionately more damage occurred to secondary level schools. The same report also indicates that boys' schools (29.1 percent) were damaged more than girls' schools (13 percent); ostensibly, because there were more boys schools than girls schools.

Primary Enrolment Rate

In response to flood damage, some non-governmental organizations opened make-shift schools in relief camps and within the communities at the time of floods. The involvement of non-governmental organizations with the communities also helped in creating awareness among the local communities about the importance of education both for girls and boys.

The survey data (Table 6.12) shows an improvement in the GPER from pre-floods to present times – an increase of 13 percentage points. GPER for girls increased by 17 percentage points, while that of boys increased by 9 percentage points; decreasing the gender gap from 10 percentage points to 3 percentage points. The improvement can be attributed to the efforts of non-governmental initiatives.

Table 6.12
Gross Enrolment Ratios and Out-of-School Children

(Percent)

	Gross Primary Enrolment Ratio[a]			Out of School Children	Gross Secondary Enrollment Ratio[b]			Out of School Children
	BF	**ATS**	**Difference (ATS-BF)**		**BF**	**ATS**	**Difference (ATS-BF)**	
Boys	39.9	49.3	9.4	61.6	31.5	28.3	-3.2	89.3
Girls	29.7	46.3	16.6	68.9	10.3	6.2	-4.0	96.4
Both	35.1	48.0	13.0	64.7	21.6	16.2	-5.4	93.2

[a] age 5 to 9 years | [b] age 10 to 14 years
Source: SPDC Survey 2012

Out-of-school children are calculated by netting out the number of primary school-age children enrolled at primary level from total population of primary school-age children. Though the findings show an improvement of 13 percent in GPER, they continue to indicate that 65 percent of primary school-going age population was out of school (62 percent boys and 69 percent girls).

A similar comparison was made by using official statistics like Pakistan Social and Living Standards Measurement (PSLM) Survey. Since, SPDC survey is limited to the flood affected rural regions, the comparison was made with PSLM data for rural areas of Thatta. The latter also shows that GPER for girls improved from 36 percent to 37 percent, indicating an increase of one percentage point. By contrast, PSLM data shows a decline of 11 percentage points in the case of boys.

Table 6.13
Reasons for Not Attending School for School-Going Age Children

(Percent of responses)

	Boys		Girls	
	BF	ATS	BF	ATS
Primary Level				
A. Demand Side Constraints	**48.7**	**53.1**	**53.8**	**59.0**
Too young	21.7	21.5	21.2	24.8
Education is expensive	10.1	11.7	9.1	12.2
Child not wanting to go to school	4.9	6.3	8.3	8.6
No permission from family	4.1	3.5	3.0	1.4
Helps in work/business	2.6	4.3	3.0	2.7
Family does not value education/education is not necessary	1.9	1.6	2.7	2.3
Due to domestic responsibilities	1.9	1.2	4.9	5.0
Ill/disabled	1.5	1.6	1.1	0.5
Due to financial hardships after flood	0.0	1.6	0.0	1.8
Education completed	0.0	0.0	0.4	0.0
B. Supply Side Constraints	**40.5**	**44.1**	**36.0**	**39.2**
Poor quality of schools/education	18.0	20.7	12.9	14.9
Distance to school	12.4	15.6	14.0	15.3
Teacher absenteeism	6.0	7.0	4.9	5.0
No School	4.1	0.0	3.4	1.4
Teachers unavailable after floods	0.0	0.8	0.0	1.8
Un-availability of gender specific teachers	0.0	0.0	0.8	0.9
C. No Response/No Reason specified	**10.9**	**2.7**	**10.2**	**1.8**
Total	**100**	**100**	**100**	**100**
Secondary Level				
A. Demand side constraints	**70.5**	**72.2**	**53.6**	**61.1**
Household responsibilities	13.1	21.6	14.3	11.9
Education is expensive	11.5	17.9	11.3	11.9
Help in work	13.1	15.4	4.8	7.8
Education is not necessary	15.9	5.6	1.8	2.1
No permission/Opportunity cost is high	8.7	3.7	12.5	11.4
Children not wanting to go to school	3.3	2.5	6.0	7.8
Education completed/Don't want to study further	1.6	2.5	1.8	2.6
Work/employment	1.6	1.9	0.0	0.0
Ill/disabled	1.1	1.2	0.6	2.1
Too young	0.6	0.0	0.6	3.6
Due to financial hardships after the flood	0.0	0.0	0.0	0.0
B. Supply side constraints	**26.2**	**25.3**	**39.3**	**32.6**
Distance to school	13.1	16.7	17.9	14.0
Poor quality of schools/education	13.1	6.8	13.7	13.0
Unavailability of teachers after the flood	0.0	1.9	0.0	1.6
Unavailability of gender specific teachers	0.0	0.0	1.8	1.6
No School	0.0	0.0	2.4	0.0
Teacher absenteeism	0.0	0.0	3.6	2.6
C. No Response/No Reason specified	**3.3**	**2.5**	**7.1**	**6.2**
Total	**100**	**100**	**100**	**100**

Source: SPDC Survey 2012

Table 6.13 indicates the demand and supply side reasons for not attending school for population aged five to nine years (primary school-going age). About one-fifth to one-fourth of respondents said that their children were too young to go to school during both the time periods. About 25 percent cited the reason in the case of the girl child, while 22 percent attributed the same reason for keeping the male child away from school. The main concerns cited in the case of the male child were poor quality of schools and education, teacher absenteeism or absence of teachers altogether. These facts indicate that households value boys' education more than girls' education and demand better schooling for boys.

Cost of education and unaffordability was cited by over 10 percent of respondents. In 2 percent of boys and girls, respondents reported that due to financial hardships after the floods they were unable to send their child to school and eventually took them out of school. There is also a 2 percentage point increase in the case of boys not going to schools post-floods on account of income earning responsibilities. Interestingly, the percentage of children reported as not attending school on account of lack of permission or education being valued as unnecessary has fallen from 6 percent to 5 percent in the case of boys and from 6 percent to 4 percent in the case of girls; the decline being greater for girls.

Clearly, the uprooting from traditional village abodes and exposure to alternate values – a consequence of the pervasive interaction with government officials, international agencies, and civil society organizations in the camps – has had some positive impacts. That many of the personnel were women tended to convey an implicit message to the women that an alternative world was possible.

Secondary Enrolment Rates

Table 6.12 shows that the gross secondary enrolment ratio (GSER) decreased by 5 percentage points after the floods. For boys, it decreased by 3 percentage points as against 4 percentage points in the case of girls. Resultantly, the gender difference further widened after the floods. The factors contributing to the difference are: financial difficulties, inclusion in income-generating activities, girls reaching puberty age – which restricts her movement outside the house.

The table also shows out-of-school children for the secondary level, which is calculated by deducting the number of secondary school-age children enrolled at the secondary level from the total population of secondary school-age children. According to the data, an alarming percentage (93.2) of secondary school-going population was out of school (89.3 percent boys and 96.4 percent girls).

The reasons for not attending secondary school are indicated in Table 6.13 for the population aged 10 to 14. About 22 percent of boys of this age group did not enter secondary level schooling or dropped out due to increased responsibilities at home during the post-floods period. In the case of girls, 'household responsibilities' was cited as a reason by 12 percent of responses. The second most cited reason for boys was the 'cost of education' which compelled the parents not to send their child to school. Distance to

school, although cited in the case of both sexes, was mentioned as the main reason in the case of girls during the two time periods – 18 percent before the flood and 14 percent at the time of the survey. Poor quality of school/education was also reported in some 13 percent of responses for girls at the time of the survey; unlike for boys, where this factor was higher at 13 percent for the pre-floods period and came down to 7 percent during the survey. The non-availability of gender-specific teachers (1.9 and 1.6 percent) did not emerge as a major discouraging factor.

Enrolment by Type of Educational Institute

While 92 percent of boys and 93 percent of girls were attending government schools at the time of the survey, a change in preference for non-government educational institutions is clearly noticeable, especially in the case of girls (Table 6.14) – 3 percent before the floods to 7 percent at the time of the survey. The preference can either be due to the better

Table 6.14
Enrolment Ratio by Type of Institution (%)

Type of Educational Institute	Gross Enrolment			
	Boys		Girls	
	BF	ATS	BF	ATS
Government	93.1	92.3	96.8	92.7
Non-Government	6.9	7.7	3.2	7.3
Total	100	100	100	100

Source: SPDC Survey 2012

quality of education imparted in private/non-government schools, non-availability of public schools for girls in the vicinity or poor infrastructure of public schools.

Impact on Health

This section focuses on health facilities available at relocation sites immediately after the floods and at the time of the survey. The 'recall method' was used to gather information about health facilities provided to them at relocation sites soon after being moved. The questionnaire also consisted of questions that helped understand mental stress and agony factors.

Status of Health at Relocation Sites

According to the survey data, approximately 56 percent of the total male population and 74 percent of the total female population needed medical care at relief camps. Poor nutritional levels, resulting in lower resistance, also caused a higher occurrence of illnesses, particularly among women and children.

The main illnesses mentioned were gastroenteritis (31.8 percent), fever (61.1 percent), allergies and infections (0.7 percent), injury (4.8 percent), and pregnancy-related complications and miscarriages (0.7 percent). Table 6.15 indicates that the ratio of females affected due to a particular medical condition was higher for fever and gastrological-related diseases. The difference in the percentage was substantive in the category of fever – 35 percent in the case of women and 26 percent in the case of men; whereas, the difference in the case of gastrological-related diseases was marginal.

Table 6.15

Medical Conditions Reported by Reasons at Relocation Site Soon After the Floods

(Percent)

Reasons ⟶	Unhygienic Conditions		Unclean Water		Poor Quality of Food		Post Traumatic Stress Disorder		Accidents During Flood		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Femal	Male	Female
Gastrological	8.8	10.0	4.6	5.4	1.9	0.4	0.3	0.3	-	-	15.7	16.0
Fever	12.7	21.6	6.2	6.9	2.8	0.9	4.7	5.4	-	-	26.3	34.8
Injury	-	-	-	-	-	-	-	-	2.6	2.2	2.6	2.2
Body Ache	0.1	-	0.1	-	0.1	-	-	0.1	-	-	0.2	0.1
Pregnancy related complications and miscarriages	0.1	-	-	-	-	-	0.6	-	0.1	-	0.7	-
Chronic Diseases			0.1	0.1	-	-	0.2	0.3	-	-	0.3	0.3
Allergy and Infections	0.4	0.2	0.1	-	-	-	-	0.1	-	-	0.5	0.2
TOTAL	21.9	31.8	11.1	12.3	4.8	1.3	5.2	6.6	2.6	2.3	45.6	54.4

Source: SPDC Survey 2012

Almost 95 percent of the population that needed health care consulted health providers at relocation sites (94.5 percent male and 96.0 percent females). Table 6.16 shows the distribution of types of health care availed at relocation sites. Nearly half (48 percent) of males and over half (56 percent) of females accessed public sector health services and one-fifth of males and females accessed visiting doctors teams arranged by the government or by associations of private hospitals and doctors.

The quality of health service availed at relocation sites for all types of health services and the problems faced are reflected in Table 6.17. The data shows 74 percent of males and 72 percent of females, who availed health care facilities at relocation sites, were satisfied with the services. Among those who obtained private health care services, the most cited problem (by both males and females) was that the service was too expensive: 27 percent of males and 36 percent of females. Similarly, those who required health care, but did not avail it, cited the same reason: 64 percent males and 45 percent females. The decomposition of the 'too expensive' response as a problem is cited on account of expenditures on medicines and supplies. For females, the distance to health care providers was also an important reason for not availing the service (44.7 percent). 'No female staff' was reported in only four cases.

The floods largely affected public physical infrastructure related to the provision of health care. It was further constrained by non-availability of adequate facilities and doctors to cater to such a large number of the ill. Although, emergency relief measures were taken to cater to health-related emergencies, the ratio of doctors to the affected population was low. Post-flood, a large number of people needed medical attention and the stock of doctors was same; hence, the ratio declined. Even the visiting teams of doctors/paramedics were not sufficient to cater to higher demand for medical consultations.

Status of Maternal Health at Relocation Sites

The survey indicates that 15 percent of women who relocated to relief camps were pregnant and about 95 percent of them availed of prenatal check-up facilities. The high incidence of pre-natal check-ups was a highly significant improvement over the pre-flood (and pre-relocation) situation and can be attributed to the availability of medical care in the camps. There were women who had had multiple children, but had experienced pre-natal check-ups for the first time.

The data shows that 58 percent pregnancies resulted in live births and one-fifth each of still births and miscarriages (Table 6.18). The latter phenomena can be attributed to the prior low health status, i.e., malnutrition, of pregnant women. It also shows that doctors attended to 43 percent of live births, 35 percent of still births and 54 percent of miscarriages, while TBAs attended to 24 percent of live births, 41 percent of still births and 31 percent of miscarriages. Nurses attended to 33 percent of live births, 24 percent of still births and 15 percent of miscarriages. That trained assistance was available was on account of available medical care in the camps was a positive development.

Table 6.16
Proportion of Sick/Injured Population by Type of Health Care Service availed at Relocation Site

(Percent)

Type of health care provider	Male	Female
Public services	47.8	55.7
Private services	34.0	26.5
Visiting doctor teams at relief camps	18.2	17.8
Total	**100**	**100**

Source: SPDC Survey 2012

Table 6.17
Problems Faced during Visit to Health Care Provider and
Reasons for Not Visiting Heath Care Provider at Relocation Site

(Percent)

	Male	Female
Satisfied with health care availed at relocated site	73.7	71.9
Problems faced during visit to health care provider at relocation site:		
No Doctor	25.1	4.5
Staff not helpful	20.9	1.8
Long waiting	18.7	24.2
Too expensive	26.7	35.9
Treatment Unsuccessful	8.6	33.6
Total	**100**	**100**
Population needed health care but did not visited health care provider	4.5	2.6
Reason for not visiting health care provider at relocation site:		
Too expensive	64.3	44.7
Too far away	26.2	44.7
No confidence in service available	0	7.9
No doctor available	9.5	2.7
Total	**100**	**100**

Source: SPDC Survey 2012

Table 6.18
Outcome of Pregnancy at Relocation Site, Birth Attendant and Percentage of Women
Satisfied with Obstetric Service Availed

(Percent)

Outcome of pregnancy at relocation site		Birth Attendant			% of Women Satisfied with service availed
		Doctor(s)	Nurse(s)	TBA/Dai	
Live Births	58.3	42.9	33.3	23.8	100.0
Still Births	20.8	35.3	23.5	41.2	93.3
Miscarriages	20.8	53.9	15.4	30.8	66.7

Source: SPDC Survey 2012

All the women included in the category of live births, 93 percent of women with stillbirths and 67 percent women who had miscarriages said that they were satisfied with the quality of service provided to them. The average cost incurred on a pregnancy by a doctor was Rs. 9,800; whereas, those handled by a nurse or TBA cost Rs. 9,300 and 3,800, respectively. The cost included consultation fee, medicines and laboratory tests. Surprisingly, there is not much difference between the average cost of a case handled by a doctor and nurse – a fact that indicates that qualified and trained nurses charge the same amount per case as doctors. Also, the non-availability of female doctors compels women to opt for a nurse, which, perhaps, is a reason for the high charges of female nurses.

Status of Psychological Health at Time of Survey

The mental health component of the survey consisted of 20 questions designed to understand the type of health issues confronted by them 30 days prior to the survey. The findings are reflected in Table 6.19 and shows that an alarming 60 percent of male respondents and 99 percent of female respondents were under mental distress.

Table 6.19
Psychological Health Status

(Percent)

	Health Symptoms	Men	Women
1.	Do you often have headaches?	76.7	96.8
2.	Is your appetite poor?	43.1	78.4
3.	Do you sleep badly?	61.3	72.3
4.	Are you easily frightened?	36.1	80.4
5.	Do your hands shake?	18.0	71.5
6.	Do you find difficulty in enjoying your daily activities?	45.9	69.3
7.	Do you face difficulty in decisions-making?	44.9	90.6
8.	Is your daily work suffering?	45.7	79.4
9.	Are you unable to play a useful part in life?	24.4	71.9
10.	Have you lost interest in things?	43.9	79.6
11.	Do you feel nervous, tense or worried?	67.9	95.8
12.	Is your digestion poor?	29.9	69.1
13.	Do you have trouble thinking clearly?	53.9	87.8
14.	Do you feel unhappy?	42.7	70.3
15.	Do you cry more than usual?	9.2	58.5
16.	Do you feel that you are a worthless person?	19.2	60.9
17.	Has the thought of ending your life ever came to your mind?	7.6	21.6
18.	Do you feel tired all the time?	69.5	96.0
19.	Do you have uncomfortable feelings in your stomach?	23.8	57.1
20.	Are you easily tired?	72.9	97.2
	Mental Health Score (Population having significant psychological distress)	60	99
	Average Age of Respondent	43	38

Source: SPDC Survey 2012 (Methodology followed from WHO 1994)

Coping Strategies

The review of the literature indicates that households usually identify ways to mitigate and minimize the adverse impacts of disasters on their overall well-being. This section provides a summarized distribution of coping mechanisms adopted by the affected households during the floods. Moreover, it also focuses on the gender roles in the identification of the coping strategies adopted by the affected communities both during the floods and in their aftermath.

During the floods, the affected households did not have enough food to fulfill the nutritional needs of the family. Table 6.20 is reflective of the responses received from respondents about the measures taken by them to minimize suffering. According to 86 percent of respondents, the families did not eat food for a full day during the disaster. Of them, 28 percent skipped meals several times, while 58 percent did not eat occasionally. Similarly, 85 percent reduced their food consumption. A significant percentage (82.6) of households protected the food consumption of children by reducing adult food consumption. About 71 percent of the affectees sold their assets to fulfill their nutritional needs. Borrowing from friends and family, earnings from casual labour, snatching food, and begging for food were also mentioned.

Gender Roles in Coping Strategies

Four choices were given to female and male respondents to probe the roles and responsibilities in activities performed to cope with the floods:

1. Solely by men
2. Solely by women
3. Jointly by men and women, and
4. Not performed at all due to either unavailability of assets or availing other choices.

Table 6.21 shows the responses received from both female and male respondents regarding roles and responsibilities. Female responses show that there is literally no role of women in activities ranging from getting food to selling assets and other valuables. These activities were either carried out by men or not adopted as a coping strategy. They also mentioned that matters related to receiving of credit, finding an alternative livelihood and decision to migrate were the domain of men. Only 15 percent of female respondents said that the activities like poultry rearing and homestead vegetable gardening were performed by women, while three percent of female respondents stated that they cultivated shrimp. Not surprisingly, 83 percent of the women said that men used the savings, while only 11 percent said that the savings was used by both women and men.

With regard to male responses, the table shows that over 97 percent of male respondents arranged for food during the floods, while over two percent said that both men and women arranged the food. More than 57 percent of the men said that activities like selling food, seeds, ornament, receiving credit from bank, mortgaging land, poultry-rearing, homestead vegetable gardening and shrimp cultivation were performed by men,

Table 6.20
Coping Strategies Adopted by the Affected
Households During Floods (%)

	Sometimes	Often	Total
Did not eat for a full day	58.3	27.7	86.0
Limit portion size	58.1	26.7	84.8
Reduce number of meals	62.5	22.2	84.6
Reduce adult consumption	51.7	30.9	82.6
Sold Household assets	35.9	35.3	71.3
Borrow/rely on friends/family	40.7	24.6	65.3
Rely of casual labour	32.7	24.2	56.9
Snatch food	31.5	17.2	48.7
A household member eat elsewhere	27.9	12.0	39.9
Begging for food	27.7	12.0	39.7

Source: SPDC Survey 2012

Table 6.21
Gender Role and Responsibilities in Activities Performed to Cope with Disaster (%)

Activities	Male Perspective				Female Perspective			
	Male	Female	Both	None	Male	Female	Both	None
Meeting food deficit	97.4	0.2	2.4	0.0	92.4	0.6	7.0	0.0
Sell assets	82.8	0.2	2.2	14.8	92.6	0.2	3.8	3.4
Sell Livestock	76.6	0.4	3.8	19.2	92.6	0.2	3.4	3.8
Sell food	67.6	0.0	1.6	30.8	92.8	0.0	2.4	4.8
Sell seeds	67.6	0.0	1.2	31.2	92.8	0.0	1.8	5.4
Sell ornament	62.0	0.0	0.8	37.2	91.0	0.0	3.2	5.8
Sell Trees	70.6	0.0	0.8	28.6	92.6	0.0	1.0	6.4
Sell Houses	73.4	0.0	0.8	25.8	92.8	0.0	0.4	6.8
Sell land	69.6	0.0	0.8	29.6	92.8	0.0	0.4	6.8
Receive credit from relatives	79.0	0.6	3.8	16.6	92.6	0.2	2.2	5.0
Receive credit from Bank	68.4	0.0	0.2	31.4	92.8	0.0	0.4	6.8
Alternate livelihood activities	78.8	0.0	0.8	20.4	94.2	0.0	0.4	5.4
Mortgage out land	67.2	0.6	1.6	30.6	92.2	0.0	0.4	7.4
Use saving	70.0	0.4	6.8	22.8	83.2	0.2	10.8	5.8
Migration (Permanent)	78.6	0.2	0.8	20.4	92.2	0.0	0.6	7.2
Migration (Temporary)	75.8	0.4	1.2	22.6	92.2	0.2	0.0	7.6
Disaster-tolerant alternate crop cultivation	63.8	1.4	0.6	34.2	92.4	0.0	0.4	7.2
Poultry rearing	57.0	11.8	0.6	30.6	78.2	14.8	2.0	5.0
Homestead vegetable gardening	57.8	3.6	0.2	38.4	76.8	15.2	0.4	7.6
Shrimp cultivation	57.7	0.2	0.0	42.1	87.4	3.2	0.2	9.2

Source: SPDC Survey 2012

while over 30 percent said that those were not carried out by anybody. About 12 percent of men said that poultry-rearing was performed by women.

Women are generally unaware of activities performed by men. Consequently, they perceived that men were engaged in performing all the activities. This is a consequence of the fact that decision-making and ownership of resources largely lie with the male respondents.

The gender-sensitive analysis of the impact of floods on employment and well-being indicates that unequal and inequitable division of labour persists in flood affected areas – which further worsened after the floods of 2010. The women's disproportionate engagement in the household domestic work, unpaid work, and underpaid non-formal sectors of economy increased since then. Their involvement in paid activities decreased as a result of an increase in domestic work and decline in employment opportunities after the floods.

Facilities and Problems at Relocation Sites

Almost all the female respondents in each of the taluka, except Shah Bunder, indicated that the floods compelled their family to leave their houses. In Shah Bunder, 38 percent of respondents did not relocate, even though their houses were surrounded by water. Families who did relocate returned after almost three months.

Table 6.22 presents the responses given by females covered in the sample regarding the places where households were relocated to due to the destruction caused by the floods. More than 55 percent of the female respondents in each taluka, except Jati and Kharochan, said that they were relocated to camps. The other places mentioned were relatives' houses, open areas or along roadsides, self-made huts, schools (private/public), rented places, deserts, friends or neighbours and government buildings. Each of the options availed caused discomfort and the privacy of the families was violated. Those living in makeshift arrangements had poor toilet arrangements and appalling lack of hygiene. Even though both sexes faced these challenges, they were particularly daunting for women and children.

The last column of Table 6.22 is indicative of the taluka-wise response of the female population on the number of hours spent in reaching the relocation sites. The longest hours were cited by the respondents living in taluka Jati (nine hours) while the respondents belonging to taluka Thatta said that they reached the relocation sites within three hours. The time variation was mainly due to the location of the breach, location of the taluka, quality of road networks, and connectivity of the taluka to major highways.

Three-fourths of families living in the affected areas arranged transportation to relocation sites themselves (Table 6.23). In all talukas, except Keti Bunder and Thatta, more than 65 percent of the female respondents stated that they themselves arranged the transportation. In Keti Bunder, 33 percent said that it was provided by the government. About 24 percent of the population living in Thatta said that the transport was provided by their relatives. The role of non-governmental organizations (NGOs) remained limited to

Table 6.22
Sites the Households were Relocated to due to the Floods

(Percent)

Taluka	Relatives	Relocation Camp	Open Area/ Road Side	Others*	Total	Hours to reach place
Thatta	9.1	56.1	12.1	22.7	100	3
Sujawal	17.6	70.6	1.5	10.3	100	4
Jati	23.1	41.0	10.3	25.6	100	9
Mirpur Bathoro	35.9	59.4	0.0	4.7	100	7
Keti Bunder	9.7	90.3	0.0	0.0	100	5
Ghorabari	15.4	63.1	1.5	20.0	100	5
Kharo Chan	39.7	46.0	3.2	11.1	100	5
Shah Bunder	10.0	75.0	0.0	15.0	100	4
Total District	21.3	59.6	4.2	14.9	100	5

Source: SPDC Survey 2012

Table 6.23
Source of Transportation to Reach Relocation Site

(Percent)

Taluka	Self	Government	NGOs/CBOs	Relatives	Others	Total
Thatta	57.4	5.6	11.1	24.1	1.9	100
Sujawal	68.9	14.8	1.6	13.1	1.6	100
Jati	66.2	13.2	1.5	10.3	8.8	100
Mirpur Bathoro	92.6	3.7	0.0	3.7	0.0	100
Keti Bunder	50.0	33.3	6.7	10.0	0.0	100
Ghorabari	77.8	3.7	0.0	18.5	0.0	100
Kharo Chan	92.5	3.8	0.0	3.8	0.0	100
Shah Bunder	94.3	0.0	2.9	2.9	0.0	100
Total District	75.1	9.0	2.7	11.2	2.0	100

Source: SPDC Survey 2012

Table 6.24
Type of Food Assistance Household Received at Relocation Sites

(Percent)

Taluka	Cooked Food	Non-Cooked Food	Mineral Water	Did Not Receive	Total
Thatta	25.8	31.8	9.1	33.3	100
Sujawal	34.8	29.9	16.2	19.1	100
Jati	29.6	29.6	2.4	38.5	100
Mirpur Bathoro	36.5	19.4	9.7	34.4	100
Keti Bunder	23.7	49.5	23.7	3.2	100
Ghorabari	17.3	28.5	5.0	49.2	100
Kharo Chan	22.4	26.9	3.0	47.6	100
Shah Bunder	31.6	29.5	6.3	32.5	100
Total District	27.9	29.4	8.4	34.3	100

Source: SPDC Survey 2012

some five talukas where they provided transportation services. Among these five talukas, the highest share of 11 percent appeared in Thatta, followed by Keti Bunder (6.7 percent), Shah Bunder (2.9 percent) and less than two percent in Sujawal and Jati.

Table 6.24 lists the type of food and other assistance received by the households at the relocation sites. The survey findings indicate that 29 percent of the respondents living in all the talukas of district Thatta said that they received non-cooked food, 28 percent received cooked food and 8 percent of the affectees received only mineral water, while the remaining (34.3 percent) complained about not receiving any food assistance. Taluka-wise, 97 percent of the respondents received food assistance in Keti Bunder, of which 50 percent reported receiving non-cooked food and 24 percent each received cooked food and mineral water. The proportion of respondents who did not receive any food assistance was the highest in Ghorabari: over 49 percent.

Table 6.25 presents the sources that provided food assistance. Overall in district Thatta, 33 percent of the food was provided by the government, 53 percent by NGOs and community-based organizations (CBOs), 8 percent by the relatives and 7 percent by other sources (army, police and political parties). It emerges from the survey findings that relative to other sources, the NGOs and CBOs were the major source of food providers followed by the government in all the talukas, except Keti Bunder where the major food provider was the government.

The questionnaire also contained questions about the type of problems encountered while travelling to the relocation sites and difficulties encountered during their stay there. Table 6.26 indicates that 59 percent of respondents complained about severe traffic congestion (prolonging their travel hours), while over 36 percent did not face any problems. Injuries or other health-related problems during relocation were reported by only five percent of the respondents.

Taluka-wise, more than 55 percent of the respondents in each taluka reported facing traffic congestion, except in Ghorabari and Shah Bunder. Less than 3 percent of the respondents, in each of the talukas, suffered injuries or other health-related problems during relocation; except in Shah Bunder, Kharochan and Ghorabari where 21 percent, 10 percent and eight percent of the respondents, respectively, faced health-related problems.

With regard to finding relocation sites, 58 percent of the respondents stated that they did not encounter any problem, 15 percent faced lack of information, while 25 percent said that there was no space available at the camp site. The responses, however, varied for each of the taluka. For example, over 42 percent of respondents in Sujawal complained of inadequate space at relocation sites and around 11 percent of the respondents in Shah Bunder had similar complaints.

Table 6.27 presents the findings related to problems encountered by the affectees during their stay at the relocation sites. About 42 percent of respondents said that they did not encounter any problem. Among those who did face problems, 37 percent complained about insufficient food supplies. The largest proportion citing this complaint belonged to taluka Thatta (nearly 64 percent) and lowest were from taluka Sujawal (28 percent).

Table 6.25
Source of Food Provision

(Percent)

Taluka	Government	NGO/CBOs	Relatives	Others	Total
Thatta	31.0	64.3	0.0	4.8	100
Sujawal	27.3	61.8	5.5	5.5	100
Jati	31.3	47.9	12.5	8.3	100
Mirpur Bathoro	27.5	57.5	10.0	5.0	100
Keti Bunder	66.7	23.3	3.3	6.7	100
Ghorabari	42.4	48.5	3.0	6.1	100
Kharo Chan	30.3	39.4	24.2	6.1	100
Shah Bunder	11.5	76.9	0.0	11.5	100
Total	32.9	53.1	7.5	6.5	100

Source: SPDC Survey 2012

Table 6.26
Problems Encountered in Travelling to and Finding a Relocation Site

(Percent)

Taluka	Travelling to relocation place				Finding a relocation place				
	None	Traffic congestion	Injury/health problems	Total	None	Insufficient information	No Space at camp site	Other	Total
Thatta	28.8	68.2	3.0	100	48.5	13.6	31.8	6.1	100
Sujawal	36.8	61.8	1.5	100	44.1	8.8	42.6	4.4	100
Jati	37.2	60.3	2.6	100	56.4	17.9	24.4	1.3	100
Mirpur Bathoro	35.9	62.5	1.6	100	67.2	12.5	17.2	3.1	100
Keti Bunder	41.9	58.1	0.0	100	77.4	3.2	19.4	0.0	100
Ghorabari	38.5	53.8	7.7	100	55.4	13.8	27.7	3.1	100
Kharo Chan	33.3	57.1	9.5	100	68.3	14.3	17.5	0.0	100
Shah Bunder	34.2	44.7	21.1	100	52.6	36.8	10.5	0.0	100
Total District	35.5	59.2	5.3	100	57.5	14.8	25.2	2.5	100

Source: SPDC Survey 2012

Table 6.27
Problems Encountered by the Affectees during their Stay at the Relocation Sites
(Female Respondents) *(Percent)*

Taluka	None	Unfriendly attitude	Insufficient space	Insufficient food	No separate facilities for women	Total
Thatta	27.3	0.0	1.5	63.6	7.6	100
Sujawal	41.2	4.4	2.9	27.9	23.5	100
Jati	42.3	2.6	0.0	29.5	25.6	100
Mirpur Bathoro	42.9	4.8	4.8	39.7	7.9	100
Keti Bunder	41.9	0.0	0.0	22.6	35.5	100
Ghorabari	42.2	1.6	1.6	34.4	20.3	100
Kharo Chan	46.8	0.0	4.8	37.1	11.3	100
Shah Bunder	52.6	0.0	0.0	39.5	7.9	100
Total District	41.5	1.9	2.1	37.4	17.0	100

Source: SPDC Survey 2012

Table 6.28
Transportation Cost Incurred

(Rupees)

Taluka	Going to relocated place	Coming back to home
Thatta	4,300	3,500
Sujawal	4,000	3,700
Jati	4,500	4,200
Mirpur Bathoro	4,900	4,200
Keti Bunder	2,300	1,800
Ghorabari	4,700	3,200
Kharo Chan	5,100	3,600
Shah Bunder	3,400	2,400
Total	4,300	3,500

Source: SPDC Survey 2012

Similarly, 17 percent of female respondents complained about non-availability of separate facilities for female affectees. Among these, the majority belonged to Keti Bunder (35.5 percent) and Jati (25.6 percent), Sujawal (23.5 percent) and Ghorabari (20.3).

Respondents were also asked about the transportation costs incurred by them or their households while moving to and from relocation sites. It was found that the cost of transportation incurred was higher when going to a relocation site than the cost of returning home (Table 6.28). On average, transportation cost ranged from Rs. 2,300 to Rs. 5,100 while going to relocation place, whereas it ranged from Rs. 1,800 to Rs. 4,200 while returning home. The highest transportation cost was reported by respondents in taluka Kharochan, followed by those in talukas Mirpur Bathoro and Ghorabari.

The response generated from the sample, perhaps, indicates the non-systematic and haphazard response of the government, civil society and the donor community. The response initiated by the three sectors, seemingly, lacked proper planning and gender-specific needs were not kept under consideration.

Male Viewpoint about Impact of Floods on Women

It is argued that floods may change gender roles either by pushing more women from paid labour to unpaid care work or vice versa. The earlier chapter on employment confirmed that employment opportunities for women in flood affected areas were reduced due to floods. As shown in earlier sections, the overall female employment rate declined from 38 percent to 26 percent – a decline of an alarming 12 percentage points. Moreover, 80 percent of female respondents mentioned an increase in their household responsibilities after floods, which was one of the reasons cited for not working for paid or remunerated work. This section aims to analyze whether their male counterparts were aware of the change in the role and responsibilities of women after the floods.

Chart 6.9
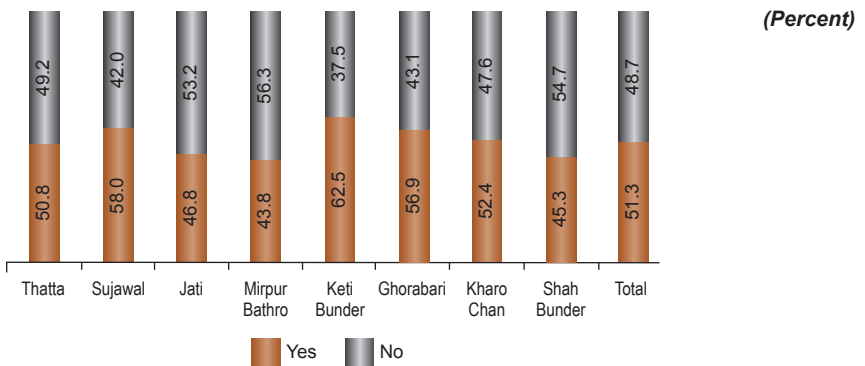**Role and Responsibilities of Females After the Floods**

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
(top)	6.2	1.4	0.0	0.0	0.0	0.0	0.6	0.0	1.2
No	69.2	79.7	83.5	85.9	87.5	83.1	90.5	87.5	83.0
Yes	24.6	18.8	16.5	14.1	12.5	16.9	7.9	12.5	15.8

Yes ▮ No ▮
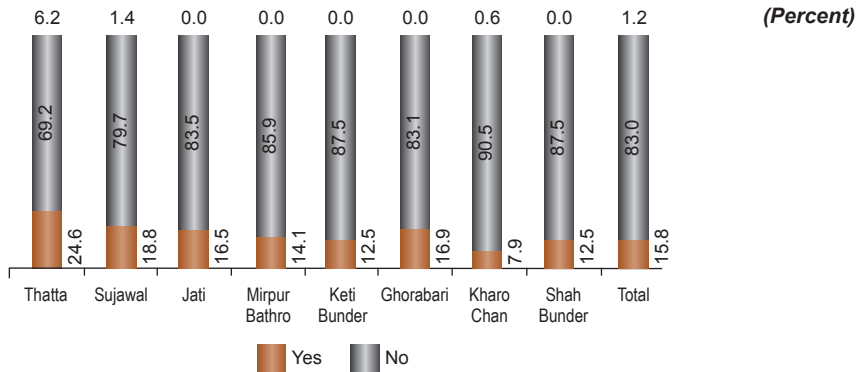
Chart 6.9 presents the perceptions of the male respondents on the change(s), if any, brought by the floods in the role and responsibilities of females. The predominant male view was that the roles of female members have not changed; however, 16 percent acknowledged that the role and responsibilities of women did change after the floods. Given that change of role did not incorporate addition and reduction in the pre-flood work responsibilities, sizeable numbers of women experienced changes in their role. This perception also coincides with the decline in employment opportunities for women.

Taluka-wise male responses indicating a change in female role and responsibilities were highest in Thatta (25 percent) and lowest in Kharochan (8 percent). Males were further asked whether female members of the household participated in the reconstruction activities. As shown in Chart 6.10, more than half of the male respondents across the district replied in the affirmative; the highest being in taluka Keti Bunder, where 63 percent of male respondents said that female family members participated in reconstruction activities of house damaged by floods.

Chart 6.10
Responses Showing Participation of Female of the House in Reconstruction Activities

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
No	49.2	42.0	53.2	56.3	37.5	43.1	47.6	54.7	48.7
Yes	50.8	58.0	46.8	43.8	62.5	56.9	52.4	45.3	51.3

Yes ▮ No ▮

Chart 6.11
Responses Showing Who Faced Greater Problems at the Time of the Foods

(Percent)

	Thatta	Sujawal	Jati	Mirpur Bathro	Keti Bunder	Ghorabari	Kharo Chan	Shah Bunder	Total
No	30.8	39.1	39.2	37.5	34.4	26.2	44.4	35.9	36.1
Yes	69.2	60.9	60.8	62.5	65.6	73.8	55.6	64.1	63.9

Yes ▮ No
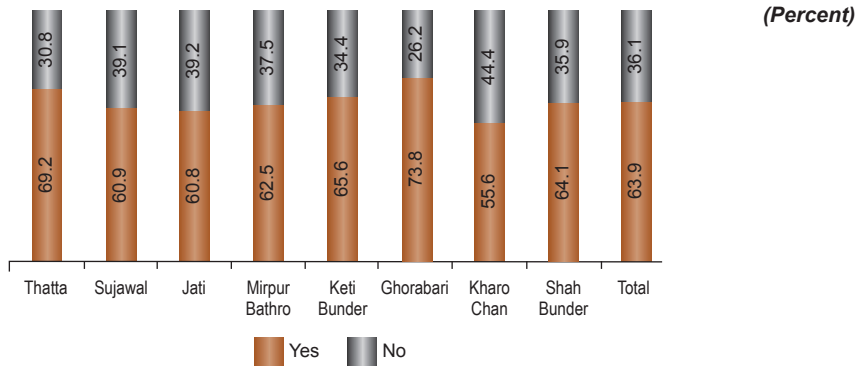
Source: SPDC Survey 2012

While there is ample literature available about how floods disproportionately affect sexes, and women are affected more than men, Chart 6.11 shows that more than 60 percent of the males in all talukas, except Kharochan, stated that males faced greater problems compared to females. The chart clearly demonstrates that despite challenges and hardship faced by women in flood affected areas of Thatta, at the time of floods and in their aftermath, their male counterparts were less aware about them.

The analysis presented in the chapter, clearly brings forward the miseries of both women and men affected by the floods separately. It shows that damages of physical and economic infrastructure affected both the male and female population. However, women faced greater challenges due to floods; their houses largely damaged, they moved to relocation sites with inappropriate facilities, lack of privacy and insufficient food. Also rehabilitation and reconstruction work and their household work responsibilities further increased due to an increase in the time and effort required in the collection of safe water and their share in paid employment declined. Despite all these challenges, their male counterparts are less aware about their sufferings.

Key Findings and Policy Implications

The floods of 2010 dislocated over 7 million people in Sindh and Thatta was one of the affected districts. The floods caused extensive damage to public infrastructure and private property: roads, public buildings, agricultural land, houses, personal possessions (assets), and workplace and businesses. Education and health infrastructure also suffered extensive damage, which seriously affected the population.

The disruption of economic activities caused a post-floods decline in employment opportunities, largely on account of the flooding of agricultural land. Women suffered disproportionately more than men in this regard. A comparison of male and female employment ratio indicates that while male employment to population ratio remained more or less the same, the female employment to population ratio declined from 38 percent

prior to the floods to 26 percent at the time of the survey Paid employment for women is largely concentrated in home-based work, which diminished considerably as a consequence of economic disruption.

All affectees faced food insufficiency and unhygienic conditions in the relocations camps. Women complained of privacy issues; particularly, with respect to toilets. The main medical problems reported at the relocation sites were gastrological diseases, fever, injuries caused mainly due to unhygienic conditions, and accidents caused during the floods and during transportation. Cases of psychological stress were high, with 99 percent of women and 60 percent of men reporting stress symptoms even at the time of the survey.

While women suffered more as a consequence of the floods, the findings also highlighted the insensitivity of male respondents in acknowledging the hardships faced by female members of the family at the time of the floods and in their aftermath. Despite evidence to the contrary, majority of male respondents said that they faced greater problems than women as a consequence floods.

While the floods disrupted life and economic activities for many months, there were positive elements too. One major positive aspect was that there were no deaths from drowning; mainly, perhaps, on account of the fact that timely warning were issued by the district administration and also by civil society organizations, military and mosques.

There were positive aspects with regard to education and health as well. Comparative pre-and post-flood education indicators show an improvement, including for girls. For instance, gross primary enrolment ratio increased from 35 percent before the floods to 48 percent at the time of survey. Girls' gross primary enrollment ratio increased by 53 percent and that of boys. The increase can be attributed to the increased presence of and motivation provided by the government and non-governmental organizations in the relief camps.

Health facilities at the camps were also relatively superior to that available to the affectees prior to the floods. This is indicated by the fact that 95 percent of pregnant women in the relief camps accessed ante-natal check-up facilities; whereas, many of them had never experienced such attention before.

Nevertheless, the percentage of miscarriages and still births remained high. This was on account of the acutely malnourished condition of pregnant women that had arrived at the relief camps. Similarly, despite improvement in primary enrolment rates, over two-thirds of school going age children continue to be out of school.

The present research has not only helped in bringing forward a number of socio-economic challenges faced by the affected population, but also exposed the miserable state of socioeconomic development, including the challenges and vulnerabilities faced by women even prior to the floods.

Further, Thatta is one of the disaster prone districts and it cannot be said that future disasters will not threaten the area. The findings also highlight the situation where there appears to be little state or community level preparedness to meet future eventualities. Deep-rooted poverty, illiteracy, malnourishment, and disempowerment renders the population incapable of meeting threats of natural or man-made disasters.

NOTES:

1. Pakistan Floods 2010, Preliminary Damage and Needs Assessment, World Bank and Asian Development Bank; Rapid Needs Assessment, United Nations, 2020

2. Bangladesh Centre for Advanced Studies (2010). Gender and Climate Change: Issues in the South, Central and South-West coastal Regions of Banglades; National Committee for Disaster Management (2012) Cambodia Post-Flood Relief and Recovery Survey, Cambodia; Asian Disaster Preparedness Center (2008). Impact of Disasters on the Education Sector in Cambodia.

3. Intergovernmental Panel on climate Change (IPCC) is a leading international body for the assessment of climate change, established in 1988 by the United nations Environment Programme (UNEP) and the World Meteorological Organization (WMO); The Stern Review, named after economist Nicholas Stern, is a report on the effects of climate change.

4. The United Nations Office for Disaster Risk Reduction (UNISDR); http://www.unisdr.org/files/25831_20120830dosaster20002011copy.pdf

5. The Framework for Action 2005-2015: Building the Resilience of Nationals and Communities to Disasters, adopted at the World Conference on Disaster Reduction held in Hyogo, Japan in 2005 provided a unique opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards.

6. Following the tsunami in 2004 and the earthquake in 2005, SAARC in its special session at Dhaka, Bangladesh, formulated a comprehensive framework on early warning, disaster management and disaster prevention. See http\\www.saarc-sdmc.nic.in/pdf/framework.pdf and http\\www.saarc.sec.org/areaofcooperation/cat-detail.php?cat_id=54

7. United Nations Development Programme, 2011

8. Pakistan Floods 2010, Rapid Gender Needs Assessment of Flood Affected Communities, UNIFEM, Islamabad Pakistan

9. Analysis of school damage in flood emergency-gender disparities-Sindh-A case Study, Flood Emergency Response, UNICEF, 2010

10. The Government of Pakistan set up a Citizens Damage Compensation Programme to support affected families with cash grants. the 'Watan Card' is the instrument through which a one-off payment of Rs. 20,000 was (Source: http||cdcp.nadra.gov.pk/introduction.jsp)

11. The Government of Pakistan introduced teh Benazir Income support Programme in 2008 to provide cahs grants of Rs. 1000 a month to women in low income families to cushion the impact of high inflation.

12. The concept of 'chaddar and char diwari' (veil and home) is a patriarchial maxim that refers to socio-cultural norms that confines women to the home and restricts her mobility.

13. The work isolation is used as a synonym for surrounded by flood water and cut off by land.

14. The work 'peculiar' refers to those household responsibilities that arose due to the floods.

15. The United Nations System of National Accounts (SNA) is an international standard system of national accounts.

16. Sindh-EMIS Reform Support Unit (RSU), Flood report on educational sector of Sindh, 2010-2011, Education and Literacy Department, Government of Sindh

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7 Cost of Violence Against Women

The patriarchal system, across the globe, has contributed in sanctioning socio-cultural control of women – a system that derives its strength from and feeds into perpetual inequality, dominance and submissiveness. The roles assigned to men and women in such a society are embedded in the socio-cultural-economic formations based on gender division of labour. The social construct of society generates a value system that strengthens social hierarchies of command and obedience; which in turn reinforces inequality and coercion.

Resultantly, women are often seen caught in a violent environment at home and in the work place. With no socio-legal remedy available, victims often experience a loss of self-respect and a constant fear of repeated violence on account of indifference and lack of understanding. Violence, including harassment at the workplace, is often treated as a natural outcome of human failing rather than a crime. Rather, it is the women who are held responsible for failing to uphold norms of honour or perform household responsibilities or being provocative at the workplace.

Theories of violence against women have provided the necessary framework for the development of an understanding of the culture of violence. The theories focus on social structures existing within a society, including the systems and institutions, and suggest that violence against women is largely a reflection of mindsets and attitudes that is widely shared at the societal level; whereby, the act of violence perpetrated against women is condoned.

Pakistan is by no means the only country suffering from this scourge (AbouZeid, 2009), but it is one of those countries where women accept it as fate due to social and cultural factors. According to a report, 80 percent of Pakistani women experience domestic violence, while one in every three experiences some form of violence such as rape, honour killing, immolation, acid attacks and verbal or psychological abuse (Express Tribune, 2011). Clearly, the scope of the problem is broad and the scourge of violence widespread.

The existing literature on different aspects of the problem has drawn attention towards the implications of high economic costs of violence into four broad categories. Direct costs include the value of goods and services for treating and preventing violence. Non-monetary or indirect costs include pain and suffering. Economic multiplier effects capture the impact on labour market participation and productivity of workers, whereas social multiplier effects capture the impact on interpersonal relations and the quality of life. The intergenerational transmission of violence is an example of such an effect (Beihl and Morrison, 1999). Pakistan is already burdened by traditions of condoning violence against

women. Clearly, by failing to deal with these causes, the country is set to produce future generations of citizens culturally predisposed to violence. Research shows that spousal abuse is higher for men who have witnessed such behavior in their childhood compared to those who have not (Beihl and Morrison, 1999).

From Early Papers To Present

The pioneering work on the economic costs of violence, using a case study methodology, in Queensland, Australia was carried out. The study published in 1988 was based on a bottom-up approach, consisting of a small sample size of 20 victims. However, the accounts of 20 victims who traced the incidents of violence in their lives cannot be taken to be representative of the whole population. Further it was limited to domestic violence and calculated only the direct costs. Subsequently, top-down approach studies such as Day (1995) and Greaves et al (1995) using nationally representative data, estimating both direct and indirect costs were published.

Stanko et al (1998) using an earlier study by McGibbon et al (1989) adopted the bottom-up approach for estimating prevalence rates of service use and costs of violence against women in a Borough of the city of London, England. Although, national crime statistics that measured rates of domestic violence were available, the authors chose not to use the national statistics as they felt that aggregate figures might not accurately reflect the 'diverse nature of life in an Inner City London Borough'. Instead, they surveyed 129 women and 107 service providing agencies in the borough of Hackney. Using the results of his own survey, as well as those of McGibbon et al, he calculated the prevalence rates of service use.

Statistics Canada (1993), on the other hand, conducted the first ever survey on violence against women. The study, using a nationally representative sample, opened avenues for further research. For instance, Day (1995) using the data from the Statistics Canada survey calculated the direct costs of violence, whereas Day's framework was used by Greaves et al (1995) to estimate additional costs of violence against women in Canada. Access Economics (2004), the study published in Australia, estimated the economic cost of domestic violence by using the available national data. Thus, each study played an instrumental role in internationalizing the issue and also in giving a new direction to the discourse.

The Inter-American Development Bank (IDB) carried out studies in six countries of the region - Brazil, Colombia El Salvador, Mexico, Peru and Venezuela - to measure the costs of social violence (Buvinic et al, 1999). The studies pointing towards the difficulties in measuring the economic multiplier effects of violence confined themselves to the final cost estimates as a percentage of the GDP (Beihl and Morrison, 1999). The first partial estimates were from Greaves et al (1995) who measured the one-year loss of tax revenues due to death, lost time at work and incarceration in Canada (Bowlus et al, 2005).

The literature produced has helped in formulating a sound basis for developing countries to undertake studies measuring the economic impact of violence against women on an individual's life, household, family income and the national exchequer (Waltersw et al, 2004). However, in the absence of reliable data in developing countries, the study on Chile and Nicaragua (Morrison and Orlando, 1999) provides a good basis by looking at the economic impact largely by focusing on the loss in women earnings.

It can safely be said that calculating the economic costs of violence against women is a complicated process. And the research on the 'effectiveness of interventions' on violence against women is 'underdeveloped' even in developed countries. Buvinic and Morrison (1999) have identified the need for research on the magnitude, costs and evaluations of pilot interventions to help in the designing of anti-violence interventions – a gap that merits serious consideration. Studies like Domestic Violence against Women and Girls (2000) from the Innocent Digest do not actually calculate economic costs but discuss the overall economic impact of violence against women. The study looks into the socio-economic costs of violence highlighting the need for drawing attention to the high costs of violence (Innocenti Digest, 2000).

In developing countries, the difficulty of estimating the cost of violence is compounded on account of non-availability of data, socio-cultural impediments, and lack of acknowledgement and low priority given by the society and government to the issue.

Situation Analysis

The issue of women's status has frequently been raised on the premise that a nation cannot progress when a vast segment of society is deprived of its due share and not allowed to play its due role. Inequality between women and men limits productivity and ultimately results in slowing down economic growth. Both theory and empirical evidence point to the importance of human capital in creating the necessary conditions for productivity growth and in reducing aggregate inequality in the future. In addition, women's human capital generates benefits for society in the form of lower child mortality, higher educational attainment, improved nutrition and reduced population growth World Bank, 1995).

A number of countries situated in the Asian region still stand on the crossroads of development with respect to human capital and Pakistan is not an exception. Prevalent among rural and urban populations violence against women takes many forms ranging from honour killings to domestic abuse (Amnesty International, 1999). The institutionalization of violence compounds the problem further and contributes to its perpetuation. Noticeable among them are existing socio-cultural norms that are influenced by illiteracy, religion, feudal traditions, and an unfavourable social paradigm for women. As discussed in the earlier section, the existing social paradigm is based on the command and obedience value system which is often found using religion and the existing socio-cultural norms as a pretext to target and subjugate woman.

Unfortunately, despite the advancement in legislation, violence against women remains rampant. Major contributing factors are the lack of sensitization of law-enforcement officials and the courts (Asian Forum, 2003), absence of the mechanism required for the implementation of laws, unwillingness of victims to report the matter, the low priority given to the issue by relevant public sector departments, and the absence of concerted and coordinated policies among and between relevant government departments. Together they all lead to inefficient implementation and an ineffectual policy approach to combating violence against women. The state capacity carrying within all three essential attributes of legitimacy, authority and effectiveness needs be ensured. The stability-fragility continuum has allowed socio-economic cleavages to gain grounds; whereby, inequality between different segments has increased and resulted in distributional conflicts. For women, co-existence with male counterparts is based on a social contract which increasingly appears to be unfair and allows the sustenance of the status quo, where women suffer.

Grounds for perpetuation for this unfair balance are also provided by the fact that a relatively small percentage of adult women have reached a secondary or higher level of education compared to their male counterparts (UNDP, 2011) and suffer from gender discrimination. Currently, Pakistan lags behind several Muslim and regional countries, such as, Indonesia, Malaysia, Bangladesh, India and Sri Lanka; which have all shown significant improvement in the status of women.

The all-too-common preference for males places women at a disadvantage. Parents view sons as a means of financial support — therefore, beneficial for their future — and as their name-bearers. Women, on the other hand, are considered to be a burden only to be lifted when they are married off. As a result, Pakistani parents invest in their sons. They educate their sons, as in the future of their sons their security in old age is perceived. This aspect accentuates the power imbalance.

Different Forms of Violence and Crimes against Women

Many manifestations of violence against women exist in Pakistan. Women are beaten and tortured by their own families, husbands and in-laws. Domestic violence seemingly is the most accepted form of violence, since whatever happens at home is considered to be free of legal ramifications and such acts remain largely unpunished for several reasons. Mostly women consider it to be their husband's 'right', a 'normal' part of marriage and a function of their marital 'duties'. The Ansar Burney Trust estimates that around 70 percent of Pakistani women experience some form of domestic violence in their lives (Ansar Burney Trust, 2012). Human Rights Watch, in one of their more detailed reports, found that up to 90 percent of women in Pakistan were subjected to verbal, sexual, emotional or physical abuse within their own homes (Human Rights Watch, 1999). The silence opted by victims is largely due to unawareness about their rights and laws, lack of financial means to opt for legal recourse, or even a lack of trust in the law-enforcement system of the country. Others see staying married as their only chance of survival in society – an abusive

marriage is viewed as a better option than being ostracized by communities they are part of. Honour weighs heavily in such decisions.

Women are raised considering themselves guardians of male honour – often found sacrificing for the sake of their families' honour. The high cost of ghairat (honour) is amply visible with the increasing incidence of honour killings in the country. According to the Human Rights Commission of Pakistan (2011), 675 women and girls were killed in 2011 from January to September alone. The commission reported 791 honour killings in 2010 (Dawn, 2012). Women, thus, are routinely killed if they are deemed to have brought shame on their families through an illicit relationship, divorcing abusive husbands, and even for being victims of rape (Amnesty International, 1999).

According to a survey, cited by Ali and Gavino (2008), conducted on 1,000 women in Punjab, 35 percent of the women admitted in hospitals reported being beaten by their husbands. The survey reported that at least two women, on average, were burned every day in domestic violence incidents (JPMA, 2008). The Ansar Burney Trust estimates that a woman suffers an acid attack, on average, every week in Pakistan (Ansar Burney Trust, 2012).

In the case of honour killing (murder case) women are killed by their own family members; the incidents go unreported. If they are reported, then in many instances the decision of the *panchayat* or the *jirga* plays a major role in court proceedings.

Women also experience violence from their in-laws and often their own families if they choose to speak against abusive husbands. Brothers and fathers may even murder them based on allegations of a violation of honour. In-laws may perpetrate crimes such as acid throwing and stove burning – engineered accidents that women often fall victim to. Acid throwing is often an act of revenge by suitors who get rejected by women (Ansar Burney Trust, 2012). Altogether, these are extreme methods of stifling a woman's right to take a stand for herself. Violence is not just physical abuse, emotional distress and tension are also forms of violence which hamper women's functional abilities and social development. Its cost is carried by women and their families, their communities, and society.

'Victims of acid-related accidents and other forms of domestic violence usually do not report them as much. They describe them as accidents in the kitchen due to family pressures. Even if some choose to testify against their perpetrators they may be silenced if the latter is influential. Around 80 to 90 percent of female burn victims, who come to the centre, are victims of domestic abuse. The irony is that in a case of violence, women from all the classes do not support the victim who is also a woman.'

– Mr. Dabir-ur-Rehman, Executive Director of the Civil Hospital Burns Ward, Karachi

Pakistan is committed at the international level to protecting basic human rights and ensuring gender equality. But state institutions lack both the sensitivity and capacity to deal with gender-specific issues and women are suffering in the name of modesty and prevention of immoral activities. The lives of millions of women are circumscribed by traditions that enforce extreme seclusion and submission to men. On paper, laws are

explicit on the protection of women but in practice they fail to do so. An Aurat Foundation (2011) study on honour killings also attributes the complicity of the police and judges as one of the major factors for the failure of this law to decrease honour killings. Law-enforcement officials resist filing complaints by women, and look the other way while women are abused and killed on the pretext of 'honour' and religion. These cultural factors that serve as an aid to perpetrators need to be taken into account while calculating the economic costs of violence in the case of Pakistan.

In a feudal system, parallel legal systems trump the writ of law. If the jirga decides that a woman is guilty of violating her family's honour, police officers look the other way. Survival in small communities is contingent on following the norms practiced by it. Police officials are part of this very system and actively support such conceptions of honour. According to the Aurat Foundation study, since the perpetrator and victim often belong to the same family, other members are reluctant to take legal action. Complaints are not registered with the police and, even when they are, police may neglect to classify them as honour crimes. Furthermore, the study points to the fact that the language in FIRs is not gender-sensitive and courts are prone to acquit the perpetrator, using the provision of grave and sudden provocation. Around 77 percent of honour killing cases end in acquittal of perpetrators (Dawn, 2012).

While violence cuts across class, ethnicity, religion and the urban/rural divide, some women are more vulnerable than others. Given that women in urban areas with a middle and upper class background are inherently at an advantage in terms of education, health, and financial stability, they are less likely to become victims. This is indicated by the fact that 68 percent of women victims belong to rural areas (GoP, 1998).

Nature of Violence and Cost to Individuals

Violence against women is recognized internationally as a major violation of human rights. It is a serious crime that has a multifaceted impact not only on women but also on society and the economy. While it is important to eliminate violence against women in Pakistan, highlighting the economic costs associated with this crime can play an instrumental role in addressing the issue at all levels. Measuring the economic costs of violence can help policy makers understanding this issue with a broader perspective.

A review of existing research available in the public domain shows that VAW is being treated as a human rights issue in Pakistan, while its economic significance – the cost incurred as a result of violence – has so far been ignored. Computation of estimates of VAW requires unit cost estimates of different services availed by the victims and the national prevalence rate of VAW. No nationwide survey on the incidence or prevalence of VAW is available in Pakistan. Even the injuries reported in these surveys are not classified by types of injuries. As such, the anecdotal evidence available in Pakistan is based on small-scale surveys including case studies or on cases reported in police stations and the media.

Qayyum et al (2012) provides prevalence rates of VAW in six districts of Pakistan. Since these selected districts are not representative of the entire country, these results cannot be generalized to produce nationwide prevalence rates. Thus, in the absence of a nationwide survey, accurate prevalence rates of VAW remains unknown. As a result, computation of cost estimates for VAW at the national, provincial or district level is not possible.

Recognizing the need, this study attempts to measure the economic costs of VAW. However, it does not aim to determine the costs of VAW in Pakistan or Karachi as a whole; rather, it measures only the individual costs incurred as a consequence of violence. Hence, the cost estimates presented here are limited only to the unit cost of some services that are generally availed by the victims of violence in Pakistan.

Significance of Measuring Economic Cost of Violence

Measuring the economic costs of VAW is essential as it demonstrates that its economic consequences significantly justify interventions to be designed in a manner that minimizes these costs and consequences. While it is argued that VAW be ended since it is ethically wrong, the cost estimates can help demonstrate the impact of this problem on society and also in shaping the attitudes of people who develop public policy and allocate limited funds. These estimates can also help in assessing the benefits or effectiveness of intervention strategies or programmes intended to eliminate violence that, in turn, may lead to resource allocation to specific programmes. The global discourse has helped in taking the issue from the realm of debate over the correctness of societal roles and responsibilities to the realm of concrete facts which promotes a social policy aiming to arrest the issue by bringing down the rate of violence.

Violence causes a drain on resources from many productive sectors that impede economic and social development. Estimating the economic cost of violence is, therefore, a useful exercise to indicate that the wastage of resources is a double burden as it bears a cost as well. It provides scientific information to the policy makers about the end result of violence that may convince them to change their funding priorities. Studies suggest that early-stage prevention and intervention costs are significantly lower than the later-stage crisis care and other societal consequences, which ultimately result in huge social savings.

Awareness of the costs of violence against women to society also strengthens arguments for the intervention of governments, social institutions and businesses into private acts. Since the costs affect everyone, even though the abuse may be private, it brings violence against women into the open as a societal issue. 'Akin to the use of seat belts, road safety, health risk management, or vaccinations, violence is an issue for which it is appropriate for society to intervene in a private affair. Measuring the costs of violence against women establishes clearly that it is a social problem that falls into this category.' (Bowlus et al, 2005).

Nature and Types of Costs

The overall economic cost of VAW can be categorized into two broad groups, i.e., the cost borne by individuals as well as the cost borne by institutions. This section describes different components of economic cost based on a sample of 50 victims.

Costs to Individuals

The economic costs of VAW borne by individuals can further be divided into direct and indirect cost components. Direct costs are actual expenses paid – representing real money spent in dealing with the consequences of violence. These costs can be computed by measuring the quantity of goods and services consumed and then multiplying them by their price. Indirect costs represent the value of loss in productivity from paid work as a result of violence. It can be computed by measuring the loss in income that results from 'loss in potential' to do a paid job or represents the value of lifetime earnings for victims sufering fatal incidents.

Direct costs

The various categories of direct cost are as follows.

Medical cost: Violence often results in physical injury, psychological trauma and sometimes death. The victims of violence visit doctors for treatment and prescriptions. These include spending for services such as visits to a general practitioner, the emergency room, hospitalization, physical therapists, dentists and mental health professionals, ambulance and payment for medicine and test/procedures. Victims seeking medical care often receive more than one service.

Police cost: Victims go to the police station for lodging the first information report (FIR) of the incidents to get their case registered formally. Although this does not require any payment, victims reported that they incur certain 'hidden cost'; i.e., under the counter payments for registration of a police report. The victims also incur certain transportation costs to and from the police station.

Legal cost: This particular category includes costs incurred in filing a legal case of violence. It includes the lawyer's fee and required legal documents for filing a case. Victims often have to visit the lawyer's office and court more than once and hence they also incur transportation costs.

Indirect costs

An indirect cost, termed opportunity cost, can be defined as the cost of opportunities the victim loses as a result of living with or leaving a violent relationship at the workplace. It is the money foregone when the victim's options are limited by the circumstances that are not conducive for her. Victims lose time from their regular paid work activities due to stress, constant fear, injury and mental health issues. They may also be at greater risk for other health problems such as chronic pain and sleep disturbances which can interfere with or limit daily functioning at the workplace.

All of these cause reduction in their productivity as they work fewer hours than before and in case of severe injury take a leave, with or without pay, or sometimes even quit their jobs or get fired. This causes a reduction in their earnings by affecting their promotion opportunities or loss in employment. Estimates of indirect costs of violence include lost earnings for the period away from paid work.

The victims suffer an additional burden in the form of expenses they incur on finding a new job. In some cases, victims are never able to go back to work and resume normal activities and thus, are a lost labour force. In incidents of homicide and suicide, the dependents of victims suffer due to the loss in the lifetime earnings that could have been generated by the victim. In other cases, victims who are compelled to go on 'leave with pay' due to injury also pay a cost – they could have availed the leave for some other contractual job or purpose.

Cost to Institutions
The literature produced clearly indicates that costs of violence are not only borne privately by individuals but also by institutions that provide services to the victims and employers. These may include public cost of hospitals/clinic; public and private cost of welfare organizations; public cost of civil and criminal courts; public cost of law enforcement agencies; or perhaps the employers costs of public and private institutions.

Characteristics of Victims
Appraisal of characteristics of the respondents/victims with respect to age, educational background, occupation, and marital and economic status provides meaningful information.

Age Group
Of the total sample, 40 percent belonged to the age group of 19-29 years. This was followed by 22 percent in the age group of 40-49 years and 20 percent in 30-39 years; 10 percent of the victims were either 18 years or less and 8 percent were above 50 years of age (Charts 7.1a and 7.1b). Majority of the victims who suffered incidents were in the age group 19-29.

Educational Background
The educational background profile shows that a large number of victims were either illiterate or had less than primary education. Of the total sample, 38 percent were illiterates, 14 percent had below primary level education including Quranic education, 22 percent completed primary education, 12 percent have done matriculation and 14 percent were educated up to intermediate level or above (Chart 7.1c).

Occupation
Nearly half of the victims (46 percent) were not economically active and 8 percent were students. Of the remaining 46 percent, 24 percent were engaged in elementary unskilled occupations, 6 percent were service workers and 6 percent were self-employed. Only 10 percent were professionals belonging to the teaching profession (Chart 7.1d).
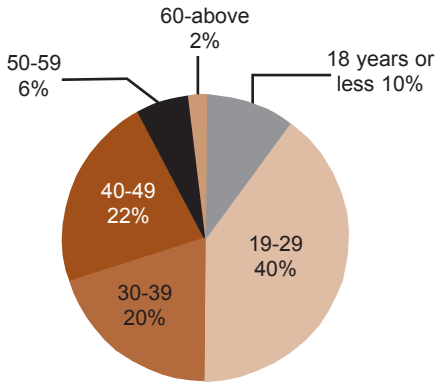
Chart 7.1a
Respondents by Age

- 60-above 2%
- 50-59 6%
- 40-49 22%
- 30-39 20%
- 19-29 40%
- 18 years or less 10%

Chart 7.1b
Age of Victim at the time of Incident

(percent)

- 18 years or less: 26
- 19-29: 57
- 30-39: 24
- 40-49: 3
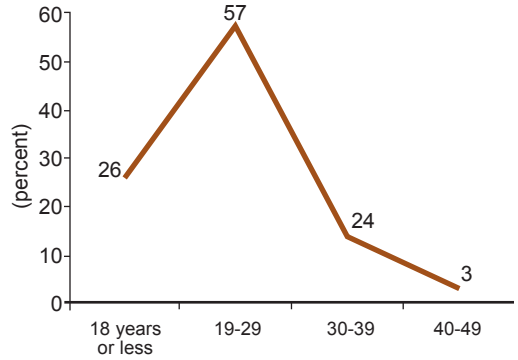
Chart 7.1c
Respondents by Educational Background

(percent)

- Illiterate: 38
- Qurranic: 6
- Below Primary: 8
- Primary: 22
- Matriculation: 12
- Intermediate: 4
- Graduate: 6
- Post Graduate: 4
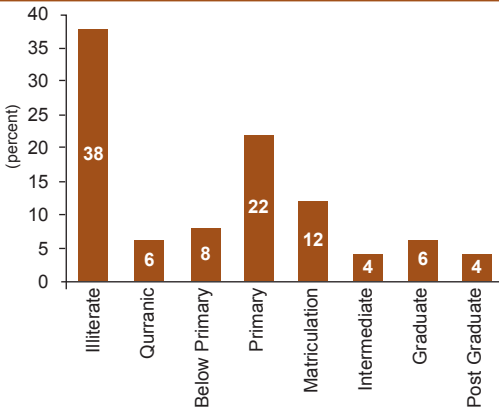
Chart 7.1d
Respondents by Occupation

- Students 8%
- Service Workers 6%
- Associates Professionals 10%
- Self-employed 6%
- Not Economically Active 46%
- Elementary (Unskilled Occupations 24%
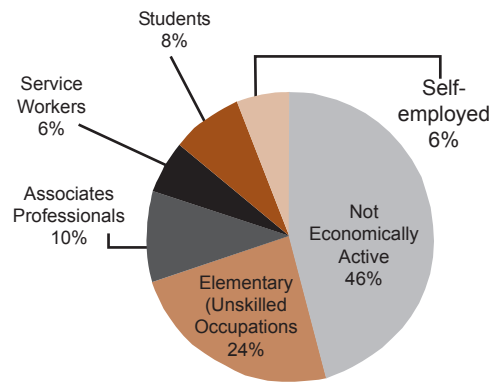
Chart 7.1e
Distribution of Victims by Income Groups

(percent)

- 0-4000: 25
- 4001-8000: 50
- 80001-14000: 10
- 14001-20000: 10
- above 20001: 5

Income in Rupees
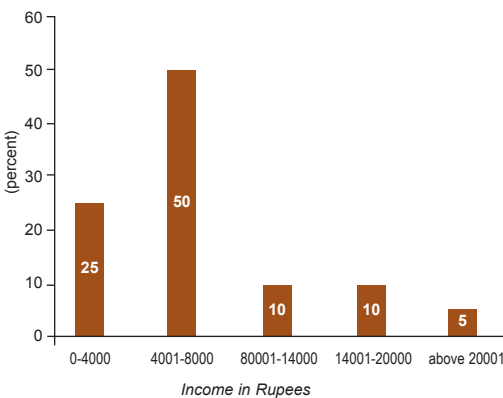
Chart 7.1f
Distribution of victims by education & income groups

(percent)

Education	Income	Value
Illiterate	Middle	2
Illiterate	Poor	36
Qurani	Poor	6
Below Primary	Middle	2
Below Primary	Poor	6
Primary	Middle	8
Primary	Poor	14
Matriculation	Rich	2
Matriculation	Middle	10
Intermediate	Middle	4
Graduate +	Middle	8
Graduate +	Poor	2
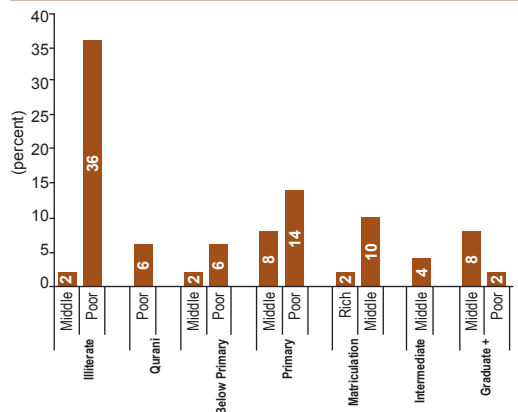
Economic Status

The profile of economic status indicates that 25 percent belonged to the poor class, 50 percent were from lower-middle class, 10 percent were from middle class and 10 percent were from upper-middle class, while 5 percent belonged to rich class (Chart 7.1e). Half the victims belong to the monthly income group Rs. 4000-8000 and one quarter to the income group earning less than Rs. 4000 per month. One sixth of victims belong to the income group earning Rs. 14,000 and above.

A cross-tabulation of educational background by economic status reveals that the highest incidence of violence occurs in families where the victims are illiterate or educated up to primary and belong to poor families. Victims who are educated from matriculation to graduations and above largely belong to middle income families (Chart 7.1f).

Marital status

The profile of marital status shows that 42 percent of respondents were married, 30 percent were separated and 10 percent were divorced. Of the remaining, 10 percent were single, 4 percent were widowed and 4 percent had filed cases for divorce.

Analysis of Violence

The influences existing on the understanding of existing socio-cultural patterns was amply evident in the responses given by the respondents of what constitutes violence against women. While 29 percent termed physical abuse as a violent act, 23 percent and 17 percent also mentioned verbal and economic abuse (refusal to provide money for household expenditures or forced possession of victim's earnings) as violent acts; 9 percent of the victims replied that they consider psychological abuse as violent activity, 5 percent raised the issue of being kept hungry, while the percentages kept on decreasing on other categories of use of violence (Table 7.1).

While referring to the nature and the type of violence the respondents were encouraged to share information about as many incidents as they had faced, with each of the women reporting at least one incident. They were also encouraged to share whether more than one perpetrator was involved. Altogether, 50 respondents reported 163 incidents of violence as illustrated in (Table 7.2).

The responses shared show physical abuse as the most frequent form of violence (37 percent) followed by verbal abuse (32 percent). Economic or financial abuse appeared as the third common form of violence the victims faced (14 percent), while sexual abuse came out as fourth frequent form of violence (6 percent). This particular category includes rape and sexual harassment being included at the work place.

Evidently, majority of the victims of violence are young, with some 57 percent being in the age group of 19-29 years and 26 percent either 18 years or less. About one-quarter of the women attributed violence to the aggressive nature of their husbands (Chart 7.2). The causality factor existing between frustration, poverty and violence was also raised.

Table 7.1 Perception of Victims about Violent Activities		
	No. of Response	Percent
Physical abuse	38	29
Verbal abuse	30	23
Economic abuse	23	17
Psychological abuse	12	9
Keeping hungry	7	5
Sexual harassment and Rape	5	4
Not giving respect to wife	4	3
Forced marriage	2	2
Cruelty	2	2
Threatening behaviour	1	1
Did not reply	9	7
Total	133	100

Source: SPDC Field Survey

Table 7.2 Types of Violent Activities		
	No. of Response	Percent
Physical abuse	61	37.4
Verbal abuse	52	31.9
Economic abuse or financial abuse	22	13.5
Sexual abuse	9	5.5
No decision making rights	6	3.7
Forced Marriage	5	3.1
Kidnapping	1	0.6
Force custody of children	1	0.6
Murder of daughter	1	0.6
Others	5	3.1
Total	163	100

Source: SPDC Field Survey

Chart 7.2
Causes of Incidents
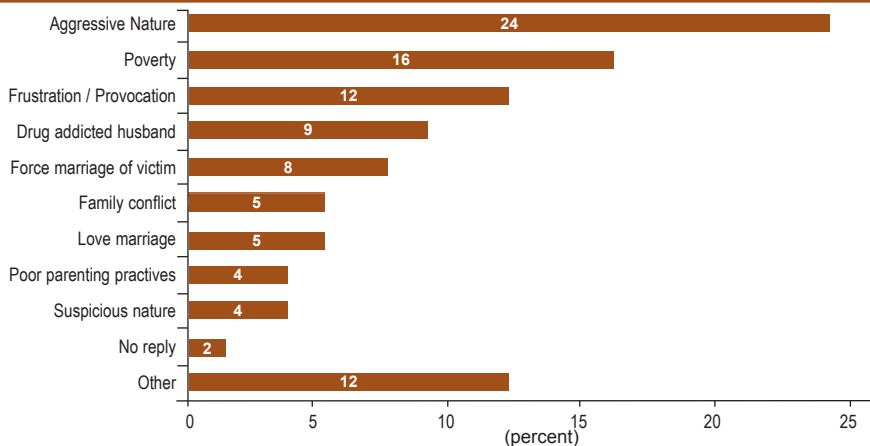
Source: SPDC Survey

Some of the other main reasons cited were drug addiction of the perpetrator, forced marriage and family conflict. A cross-tabulation of causes of violence and income class also brings forwards 'aggressive nature of perpetrator and frustration' as major reason alongwith some additional reasons such as intra-family feuds and poor parenting, use of alcohol etc.

Relationship with the Perpetrator and the Type of Injuries
The research undertaken indicate that the majority of the perpetrators were either husbands or in-laws of the victim. Chart 7.3 indicates that 55 percent of 163 incidents of violence were carried out by the husband of the victim and 22 percent by her in-laws. The remaining 23 percent incidents of violence were carried out by different perpetrators including relatives, male employer, male neighbour, parents and brother.

Chart 7.3
Perpetrators by Relation to Victim

(percent)

Husband	In-Laws	Relatives	Male Employer	Male Neighbour	Parents	Brother
55	22	7	5	6	4	1

Source: SPDC Survey

Chart 7.4
Types of Injuries

Sprains/Bruises	33
Head Injury	19
Cuts	14
Acute poisoning	8
Facial Injury	8
Miscarriage	3
Rape	3
Burns	3
Fractures	3
Others	6

Source: SPDC Survey
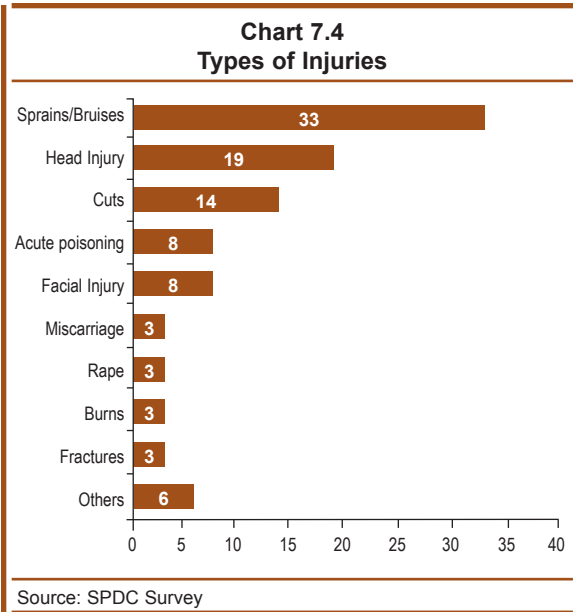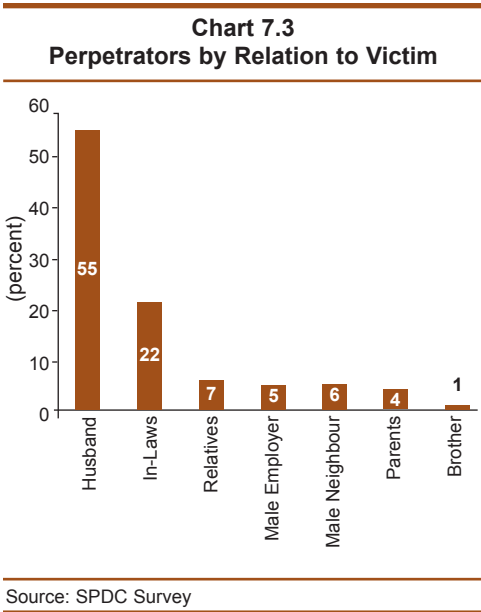
A cross-tabulation of injuries by perpetrators reveals that violence by the husband is most frequently reported. The husband is responsible for all cases of fractures, burns and miscarriages, 75 percent of facial injuries, 62 percent of head injuries, 42 percent of cuts and bruises, and 56 percent of suicide attempts by poisoning. Respondents also mentioned violence being inflicted on regular basis by in-laws on regular basis and by male neighbors and employers occasionally. In most of the cases, violence resulted in head injuries, followed by cut and bruises and other form of injuries such of burns.

Types of Injuries

Out of 50 victims, 44 percent sustained injuries as a consequence of violence, where some suffered injuries more than once. Chart 7.4 indicates that cuts and bruises were the most common type of injury as 47 percent of the victims reported it. Head injury was reported by 19 percent. Acute poisoning occurred in cases when victims underwent stress and trauma as a consequence of violence and attempted suicide. Miscarriages, rape, burns and fractures were also reported. Temporary disability, such as impaired eye vision and depression were also reported by some of the respondents.

Violence against women is so ubiquitous, almost routine, that it has become a 'normal' state for women in Pakistan. Examine the causes of violence and you can see them present in one form or the other across the country, deeply rooted and firmly secured through years of practice and even more decades of tradition. Pakistan is by no means the only country suffering from this scourge but it is one of those countries where women accept it as fate due to social and cultural factors. According to a report, 80 percent of Pakistani women experience domestic violence, while one in every three experiences some form of violence such as rape, honour killing, immolation, acid attacks and verbal or psychological abuse. Clearly, the scope of the problem is broad and the scourge of violence widespread.

Estimates of the Economic Cost of VAW

Three components of direct costs covered in the questionnaire were costs incurred on medical treatment, accessing police service and legal help. This section provides the estimated unit costs of acquiring these services by victims of violence and are indicative based on victim responses.

Types of Costs

Cost Incurred on Acquiring Medical Treatment

The findings show that 77 percent of victims needed to visit a doctor for medical treatment. Of those who availed medical treatment, 35 percent visited private hospitals/clinics, 59 percent went to public hospitals/clinics, while the remaining approached welfare clinics. Of these again, 18 percent required hospitalization and 6 percent underwent surgery.

Table 7.3 shows that average unit cost of medical treatment amounted to Rs. 9,600 per case. However, the cost fluctuated depending on the nature of injury and the time required for its healing. It includes money spent for physician's services, hospitalization (if any), outpatient clinic visits, physical check-ups, tests and procedures, and medicine costs. Victims seeking medical care at times required more than one visit (1-5 times) and more than one kind of service and went to the doctor several times.

Table 7.3 Estimated Unit Cost of Medical Treatment Availed by Victims of VAW	
	(in Rupees at 2011 prices)
Cost of service	9,600
Cost of transportation	500
Total Medical cost	**10,100**
Source: SPDC Survey	

'The estimated cost of each patient admitted in the centre was Rs.15,000 to Rs. 20,000. In more severe cases an additional Rs. 17,000 is spent.'

– Executive Director, Burns Ward - Civil Hospital, Karachi

Incidents of physical abuse, like slapping and hitting, result in minor or less severe injuries, while beating with a stick, locking the victim in a fixed position, food deprivation, acid throwing, attempted kidnapping and rape usually result in severe injuries.

The findings indicate that such incidents, at times, result in running away from home and attempts at suicide. Minor injuries (bruises and cuts) require less money to be spent on treatment compared to major injuries (head injuries, fractures, internal organ damage, burns, poisoning, miscarriages, and rape); which may require different tests and procedures like MRI, CT Scan, X-Ray, ultrasound, blood and urine test, and medication. Victims of rape opt for abortion in case of pregnancy, which, being illegal in Pakistan, costs more than normal delivery cases. Victims also reported money spent for transportation to visit hospitals or clinics. The cost (Rs. 500 per visit) indicated in Table 7.3 includes transportation by taxi or ambulance in case of severe injury.

Some of the victims also reported that they did not avail any medical treatment due to financial constraints. They instead opted for home remedies for treating their minor injuries. In some cases, medical costs were incurred by a welfare organization.

Cost Incurred on Legal Services
This cost can be classified into costs incurred on availing police and on judicial services. Being a public service, in theory, police services are free. However, money has to be given to get the FIR (police report) registered and for the medical check-up to be done by the Medico-Legal Officer (MLO). The latter comprises of lawyer's fees and court fees. Respondents reported paying the former 'hidden costs' to avail these services and also to get the cooperation of service provider, which impose extra financial burdens on the victim and her family.

Cost for Police Service
Of the total number of respondents, 18 percent went to a police station to lodge formal registration of their case. This indicates that 82 percent of incidents were not reported to the police.

Cases of injury that result in bleeding and fractures are filed in Criminal Courts and require an FIR to be lodged if the victim wants to pursue a legal course of action. Cases related to *khula* (divorce initiated by the wife) and child custody are filed in Civil Courts and do not require an FIR.

Table 7.4 shows that average costs paid by the victim for availing police services amount to Rs 34,900. The amount charged depends on the type of case, nature of crime and the socio-political strength of the individual involved/affected by the violence. For example, in cases of kidnapping, rape and threat to life (*karo kari*) the amount is on the higher side; particularly in kidnapping cases where the victim has to be recovered from kidnappers. Transportation costs of going to the police station have to be borne by the victim, which amounts to an average of Rs. 1,500. Findings indicate a positive correlation between the money paid and the attitude of police.

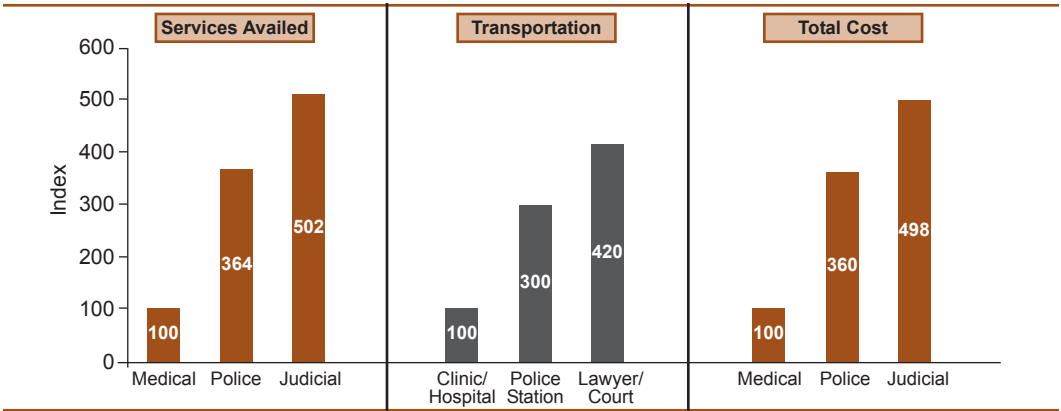| Table 7.4 Estimated Unit Cost of Legal Services Availed by Victims of VAW	
	(in Rupees at prices of 2011
Police Cost	
Cost of service	34,900
Cost of transportation	1,500
Total Police Cost	**36,400**
Judicial Cost	
Cost of service	48,200
Cost of transportation	2,100
Total Judicial Cost	**50,300**

Source: SPDC Survey

Cost of Judicial Service
Of the total number of victims, 42 percent opted for legal action. This particular category largely consists of those who accessed the assistance of NGOs. The victims that cannot or do not access or are not accessed by an NGO are less likely to attain any legal help. Unit cost of availing judicial services amounts to Rs. 48,200. This cost includes money

Chart 7.5
Comparison of Unit Cost Incurred by Victims of VAW

| Services Availed | Transportation | Total Cost |

Index

600
500
400
300
200
100
0

Services Availed: Medical 100, Police 364, Judicial 502

Transportation: Clinic/Hospital 100, Police Station 300, Lawyer/Court 420

Total Cost: Medical 100, Police 360, Judicial 498

Source: SPDC Survey

spent on lawyer's fee and certain informal or hidden payments made to get court documents. It was found that the unit cost incurred in cases of *khula* and child custody is lower compared to that incurred on rape. This is on account of the fact that, unlike in the case of rape, the judicial procedures for *khula* cases are well defined. Sometimes, victims were misled and deceived due to which they end up paying unnecessary money for police and judicial services. Multiple transportation costs on visits to lawyer's offices and courts amount to Rs. 2,100.

Comparison of the Unit Cost of Services Availed

Chart 7.5 gives the comparison of the unit cost of services availed by victims. If the cost of availing medical service is 100 units, the costs of availing police and legal service are 364 and 502 units, respectively. This indicates that the cost incurred on getting police service and legal help is 4 to 5 times higher than the cost of medical service. Given these high costs, an intimidating environment at police stations, and a slow and ineffective judicial system, it is not surprising that 58 percent of victims hesitated to avail these services.

A similar trend is seen in transportation costs incurred to avail these services. Assuming 100 units are spent on visits to clinics/hospitals, 300 units are spent on transportation to visit police station and 420 units on visits to lawyer/court. The comparison of total unit cost including the unit cost of services availed and transportation is also shown in Chart 7.5. The findings of the survey indicate that the highest cost incurred by the victim was on the legal assistance sought.

Who Picked the Cost?

Victims' inability to meet these costs prevents them from availing the services in all three categories. According to the respondents, the costs were met by selling household items and personal possessions, such as jewelry. Loans are also obtained from family members, relatives and neighbours.

Chart 7.6
Who Picked the Cost?
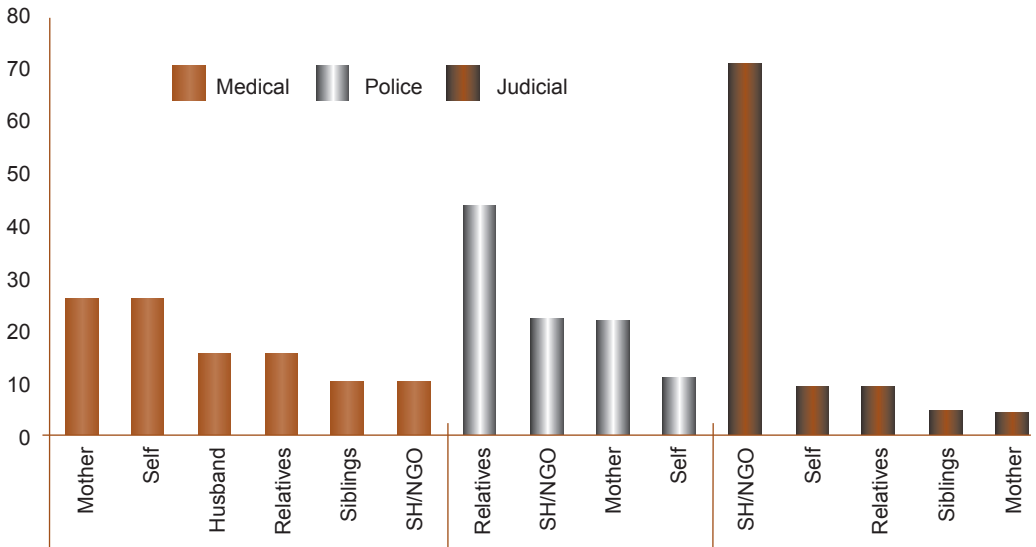
Source: SPDC Survey

Victims did not always bear the cost themselves. In some of the cases, the expenses were paid/shared by their mother, siblings, husband, relatives, friends and neighbours, or NGOs. Chart 7.6 indicates that the medical expenses were mostly picked up by the mother of the victim. In case of police reporting, majority of the victims went with their relatives, friends and/or neighbours, especially if the latter had contacts in the police or Shelter Homes or NGO. However, in cases where victims visited the police station on their own, again the mother of the victim and she herself bore the cost. The legal cost, according to the responses received, was predominantly picked by NGOs and Shelter Homes for majority of victims.

Effects on Employment

The data obtained from the survey indicate that majority of the respondents were not part of workforce or did not have a paid job. Table 7.5 provides a comparison of victims working at the time of the incident with those working soon after

Table 7.5
Effects on Employment after Incident

| | As % of victims working at the time of incident | | |
	Left work	Started work	Net Change
Soon after incident	28.6	35.7	7.1
At the time of interview	42.9	64.3	21.4

Source: SPDC Survey

the incident and at the time of interview. It indicates that 29 percent of those who were working at the time of incident had to quit their job after the incident, 43 percent of whom had not resumed work till the time of interview. The reasons cited were injury, disability and depression. On the other hand, 36 percent of victims were compelled to join the

labour force to cover the additional financial burden incurred. It is important to note that number of victims who started working after the incident is greater than those who left their jobs as a result of the impact of violence. Besides, 12 percent reported that they took leave without pay while another 12 percent took leave with pay.

Table 7.6 gives details of employed victims by type of occupation. It shows that at the time of the incident, 28 percent of the victims were doing a paid job; with 12 percent engaged in elementary (unskilled) occupations, 4 percent in service occupations, 4 percent in self-employment, and 8 percent in professionals occupations. As mentioned above, some victims left their jobs post-incident, while some entered the work force. The net effect indicates that the proportion of victims doing a paid job increased to 30 percent. Those who left their jobs

Table 7.6 Employed Victims by Occupation			
	Victims Working (%)		
	At the time of incident	Soon after incident	At the time of interview
Elementary (unskilled) occupations	12	16	20
Self-employed	4	2	4
Associate professionals	8	6	8
Service workers	4	6	2
All in the sample	28	30	34

Source: SPDC Survey

were self-employed and professionals, while those who entered in work force were elementary unskilled and service workers. A comparison of occupation categories at the time of incident and at the time of interview indicates that victims largely entered into low paid elementary unskilled occupations and left relatively higher paid service work (immunization programme worker, factory worker, etc). This implies that victim suffering heightened after incidents and increased their "time poverty".

## Do Victims Have a Coping Strategy?

The victims were also asked questions on the attitude of perpetrator(s) and the possible intervention that they thought were necessary to cope with violence at the time of incident and afterwards. Responding to the question whether they ever tried to defend themselves from violence, 82 percent responded in the affirmative. Chart 7.7 shows that nearly 60 percent of the victims retaliated verbally, while 23 percent retaliated physically. However, 13 percent fled from home, 3 percent attempted suicide and 2 percent resorted to hunger strike.

Replying to a question about the attitude of perpetrator in response to their verbal retaliation,

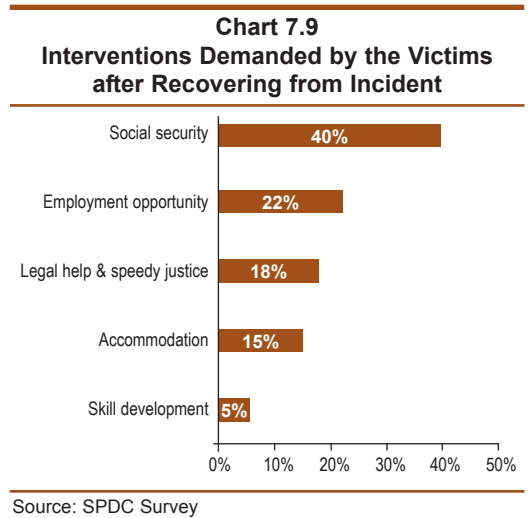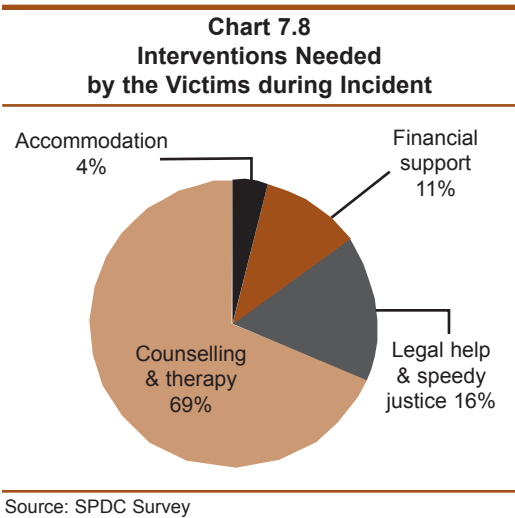Chart 7.7
Manners Practiced by Victims to Defend Themselves
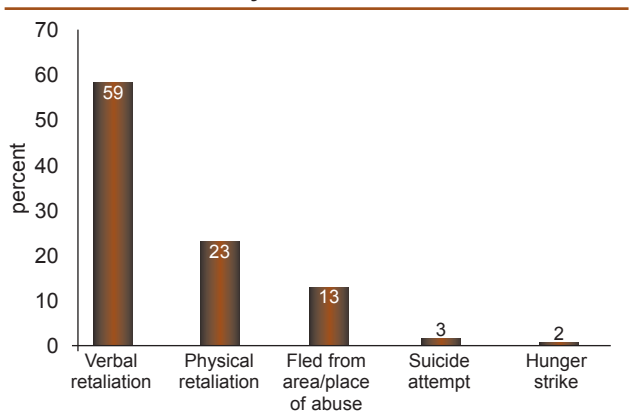
Source: SPDC Survey

two thirds of victims reported that the perpetrator responded positively, with the perpetrator feeling ashamed and apologizing for their behavior. In most cases though, abuse continued. One third of the victims reported that they were subjected to further violence and threats to harm the children or other family members, including murder. Pertaining to the attitude of their own family, 58 percent of the victims said that they co-operated with them in tackling with the situation while 36 percent said that they were non-cooperative. About the in-laws, 14 percent said that they were co-operative while 66 percent said that they were non-cooperative.

The victims were also asked whether they knew about the legal protection of women against violence. Surprisingly, 66 percent replied in the affirmative. All victims who were graduates and above and madrassah educated, 83 percent of matriculates and 64 percent of primary educated reported awareness about legal protection against violence. Awareness among victims who were illiterate or educated below primary was reported at about 50 percent.

Chart 7.8 shows that 69 percent of the victims asked for counseling, therapy and rehabilitation. The findings also reveal that the majority of women do not always get injured every time when they are victimized.   However, they always suffered a psychological impact, with respondents mentioning depression, stress and trauma (for which they neither sought or received any treatment). Depression and stress are the root causes of many illnesses that affect not only the victim's physical health and quality of life, but also those living in her surroundings. This affects their daily routine work at home and employment as well as caring of children.   The importance of having therapy and rehabilitation following incidents of violence was raised by the respondents. Besides this, 16 percent demanded the legal system and its implementation to be strengthened, 4 percent considered availability of emergency accommodation important, and 11 percent felt the need for financial support.

Victims were also asked about the type of intervention they considered crucial. These responses are summarized in Chart 7.9. It shows that 40 percent of the respondent

Chart 7.8
Interventions Needed by the Victims during Incident

Accommodation 4%
Financial support 11%
Counselling & therapy 69%
Legal help & speedy justice 16%

Source: SPDC Survey

Chart 7.9
Interventions Demanded by the Victims after Recovering from Incident

Social security 40%
Employment opportunity 22%
Legal help & speedy justice 18%
Accommodation 15%
Skill development 5%

Source: SPDC Survey

demanded a social security system and 22 percent employment opportunities. Since majority of the victims in the sample came from poor financial background, they felt lack of finances hampered them in coping effectively from the post-violence situations and were not able to finance the expenditures related to legal help and medicines by themselves and have to rely on family, relatives and NGOs. Those now divorced want to have some employment opportunities to financially support themselves and their children; those who are already working and engaged in low-paid jobs and those who are unable to work due to old age or disability want a social security system in order to supplement their inadequate earnings. About one-sixth of victims also asked for alternate accommodation.

Key Findings and Policy Implications

Violence against women is a major violation of a woman's human rights. Consequences of violation are not only limited to the lives of victims, but also their families and society at large. In addition, it carries an economic cost to individuals, families, communities and the macro-economy as a whole. Given that modern policy-making is evidence-based, research on the costs of violence is likely to help build an empirical basis for action. These studies can also help perform cost-benefit or cost-effectiveness analysis regarding different intervention programmes and suggest implementation of effective programmes for early detection, intervention, treatment and public education. In addition, result-based measurements are likely to help demonstrate the need for a change in budgetary allocations, improve domestic legislation, and strengthen programmes to prevent violence against women.

Obtaining estimates of cost of violence against women to the national economy is a challenging task. Cultural and social barriers hinder women from freely sharing information and reporting cases related to violence. Moreover, various forms of violence, having different types of repercussions, are difficult to quantify. For instance, in a case of verbal abuse, a victim may lose their motivation and productivity in providing paid or unpaid services. However, these are difficult to measure in monetary terms. Physical abuse may result in minor injuries, stress/depression and even major injuries. Individuals usually do not go for any formal medical treatment in case of minor injuries or stress and rely on home remedies or informal services instead. Even in the case of major injuries, when victims require formal treatment, computing cost estimates is difficult as both public and private hospitals, and other welfare institutions, do not maintain separate data on cases related to violence. Moreover, it is difficult to get accurate cost estimates in the absence of written records or documentation of other services accrued by the victims. These challenges further compound the problems of calculating the overall impact of violence as truly representative prevalence or incidence rates are not available. Data available presently are a compilation of reported cases by civil society organizations.

This research, first of its kind in Pakistan, has helped in bringing forward systematically computed estimates of unit cost. This information was collected through a

primary survey by questioning victims of violence (residing in Karachi) about the money they spent under three broad categories of services, namely, medical treatment, police/investigation and judicial services, including transportation costs incurred on access to each service.

The social behavioural pattern deriving its strength from the command and obedience value system has made women more vulnerable to exploitation and violence. At the same time, state fragility and an 'intentional indifference' has prevented government and society from identifying and initiating the much required preventive actions to address violence against women.

The findings indicate that the unit cost of getting medical treatment is Rs 9,600, obtaining police service is Rs. 34,900 and pursuing legal action is Rs. 48,200. The unit cost of acquiring police service covers the amount victim pays to lodge an FIR. This computed cost largely reflects the money paid for incidents of rape, threat to life (*karo kari*) and kidnapping. Victims also paid certain hidden money to obtain relevant court documents. Those who could not afford to pay this money were not able to get police or judicial help notwithstanding the severity of their case.

The findings also indicate that physical abuse is the most frequent form of violence, followed by verbal and financial abuse. Majority of the victims were less than 30 years of age at the time of incident. In most of the cases, the woman is a victim of aggression inflicted by her husband or in-laws. Frustrations, caused by economic and social pressures, lead to aggressive behavior and which are the principal factors in violence against women. Unfortunately, the victims are constraint by the social environment and do not visit police stations due to which most cases remain unreported. Victims mentioned that they availed medical services in cases of severe physical abuse without going to police station or even lodging an FIR against the perpetrator. In cases, where the victims pursued legal action, they did so with the help of a non-governmental organization. This was mainly due to financial constraints and a lack of understanding of legal course available. Many are also hoodwinked by police and lawyers and end up paying more than they should have. Victims expressed the need for speedy and efficient justice system, legal and psychological counseling facilities, employment, skill development and financial support.

The efforts made in Pakistan on the issue of violence against women are focused on women-specific legislation formulation, documentaries highlighting various aspects of violence, compilation of reported cases and data collection on violence in selected districts. They are all highly commendable efforts, however, much more needs to be done to create a conducive social environment for women and their social progression. The donor driven approach of exclusively focusing on the economic empowerment has not helped in ensuring the social empowerment of women in Pakistan. The socio-political developments seen during the last three decades have also qualitatively altered the lives of women in Pakistan for the worse. It has been noticed that law enforcers, legal and medical professionals (police, prosecutors, magistrates, judges and doctors) adhering to

the traditional values system take male members to be the ultimate decision makers and value setters for the female members to follow. Given their entrenched dominance, they view women as subservient to their authority.

Post-18th amendment, social issues such as violence against women are now the exclusive domain of the provinces and a range of measures are urgently in order. In order to calculate the true prevalence rate of VAW, a National Violence against Women Survey needs to be conducted by relevant public institutions. The Labour Force Survey (LFS) currently provides data on occupational injuries, but does not indicate types and cause of injuries. The scope of LFS, thus, needs to be broadened by including codes related to domestic violence or other forms of gender-based violence. Hospitals and police stations need to compile separate records of (gender) violence-related cases. Equally important is to launch a awareness media campaign about the existence of Benazir Bhutto crisis cells working under the Women Development Department (WDD) and Ministry of Women Development (MoWD). They are providing legal support to victims of violence. However, very few are aware of its existence.

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8 Women and Law

Laws refelct as well as influence social norms that exists within the larger cultural and sociopolitical context. Operationally, the body of laws provides the regulatory framework for society in terms of its behaviour and actions in different aspect of life.

This chapter contains details of women specific laws prevailing in Pakistan and looks at the development of international labour standards and their impact on the strengthening, promotion and consolidation of the concept of social justice which results in equitable socio-economic progress. Pakistan is a signatory or has ratified various international conventions and declarations committing itself to improve gender inequalities and inequities. In order to ensure a conducive social environment, domestic legislation has to be made at par with its international commitments. However, the absence of essential pre-requisites continue to impair any serious and sustained efforts required for the development of society and women's empowerment. The socio-cultural environment is also not conducive for their implementation, a condition that requires urgent remedial measures to address the issues of inequities.

The origin of most of the existing laws in Pakistan lies in the British system of common law beginning with the Charter Acts of 1726 and 1753. Over time, the body of laws has undergone many changes during the colonial and post-colonial periods. This chapter deals with two sets of laws: 1. Labour and its gender aspects

2. Protection of women

Constitutional Provisions

Currently, the Constitution of Pakistan (1973) provides the basis for all laws, including ones that protect human rights, labour rights, and the rights of women and children. Some of the relevant constitutional provisions relating to labour and women are as follows:

Article 3: Elimination of Exploitation
The State shall ensure the elimination of all forms of exploitation and the gradual fulfillment of the fundamental principle, from each according to his ability to each according to his work.

Article 11: Slavery, forced labour, etc. prohibited
Clause (1)   '… no law shall permit or facilitate its introduction into Pakistan in any form.

Clause (2)   All forms of forced labour and traffic in human beings are prohibited.

Clause (3)   No child below the age of fourteen years shall be engaged in any factory or mine or any other hazardous employment.

Clause 4(b) '… no compulsory service shall be of a cruel nature or incompatible with human dignity.

Article 17: *Freedom of Association*
Clause (1) Every citizen shall have the right to form associations or unions …'.

Article 25: Equality of Citizens
Clause (2) There shall be no discrimination on the basis of sex.
Clause (3) Nothing in this Article shall prevent the State from making any special
provision for the protection of women and children.

Article 34: Full participation of women in national life
Steps shall be taken to ensure full participation of women in all spheres of national life.

Article 35: Protection of family, etc.
The State shall protect the marriage, the family, the mother and the child.

Article 37: Promotion of social justice and eradication of social evils
Clause (e)   The State shall make provision for securing just and humane conditions of work, ensuring that children and women are not employed in vocations unsuited to their age or sex, and for maternity benefits for women in employment.
Clause (f)   '… enable the people of different areas, through education, training, agricultural and industrial development and other methods, to participate fully in all forms of national activities, including employment in the service of Pakistan.

Article 38: Promotion of social and economic well-being of the people
Clause (a)   The State shall '…by ensuring equitable adjustment of rights between employers and employees…'.
Clause (b)   Provide for all citizens, within the available resources of the country, facilities for work and adequate livelihood with reasonable rest and leisure.
Clause (d)   '… irrespective of sex, caste, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment'.
Clause (e)   Reduce disparity in the income and earnings of individuals, including persons in the various classes of the service of Pakistan.

Gender Aspects of Labour Laws

By mid-19th century, British colonialism had established its rule over much of south Asia and which lasted up to the mid-20th century. Resultantly, the British system of common law is the source of most of the existing laws in Pakistan, including laws relating to labour and women. The Master and Servants Acts, enacted by the British Parliament, formed the basis of employer-employee relations in Britain and the colonies – until their repeal in

1875. In 1856, the British Government set up a Law Commission under Lord Macaulay, which drafted a series of laws governing labour and which are – in amended forms – still in force (Sankaran, 2007). The Mines Act 1923, Workman's Compensation Act 1923, Trade Union Act 1926, Factories Act 1934, and Payment of Wages Act 1936 are some of the basic pre-independence labour laws.

Much of the labour legislation related to women reflects British concern 'to preserve female modesty and protect women's rights within the domestic sphere' (Mullally, 1996). Consequently, reference to labour laws is almost entirely male-centric, with gender aspects largely addressing issues relating to maternity benefits.

The mass movement for independence from colonial rule spurred labour mobilization and the then government responded with the setting up in 1946 of a tripartite consultative system with representatives of the government, employers and employees. The recommendations of the conference were endorsed at the first tripartite conference held in independent Pakistan in 1949. The first labour policy was formulated in 1955.

The fact that it took 5 years to frame a labour policy is indicative of the neglect of labour rights and welfare from the inception of the country – an indifference that continues to this day. At the time of independence, Pakistan's work-force inherited the legacy of a dynamic trade union movement and the Trade Union Act of 1926 offered an unrestricted way to form unions. Subsequently, the scope of labour rights has narrowed significantly from pre-independence days to the present. In this context, inattention to gender aspects of labour laws cannot but be expected. In fact, women specific provisions in labour laws remains largely limited to issues relating to maternity benefits. According to Mullally, 'issues of gender equality and equity are hostage to the existing religious-cultural paradigm governing the society.'

The Constitution of Pakistan (1973) originally placed the subject of labour in the Concurrent Legislative List; whereby, it was the joint responsibility of the federation and the provinces. In 2010, the 18th Amendment to the Constitution abolished the Concurrent Legislative List; whereby, the subject of labour has been placed exclusively in the provincial domain. Legislation with respect to labour issues is now the responsibility of the provinces. The provinces have now begun to amend federally enacted labour laws to bring them in line with the provisions of the 18th Amendment. Some of the laws that have been amended is shown in Box 8.1.

International Covenants

Following the success of the socialist revolution in Russia in 1917 and the establishment of the world's first proletariat state, 'social justice' emerged as an urgent goal for the western European states and the United States. The outcome was the founding of the International Labour Organization in 1920 and the drawing up of a series of covenants, known as ILO Conventions, to govern labour relations and protect labour rights and welfare. The ILO Conventions provides a framework and a standard for labour laws in member countries.

Box 8.1
Major labour laws passed/amended by the provincial governments post-18th Amendment

Balochistan	Khyber Pakhtunkhwa	Punjab	Sindh
Balchistan Industrial Relations Act, 2010	Khyber Pakhtunkhwa Industrial Relations, Act, 2010	The Punjab Industrial Relations Act, 2010 (Act XIX of 2010)	Sindh Industrial Relations Act, 2013
	Khyber Pakhtunkhwa Factories Act, 2013	The Factories Act 1934 (Act XXV of 1934). Adapted, with amendments, for the province of the Punjab in 2012	
	Khyber Pakhtunkhwa Industrial and Commercial Employment (Standing Orders) Act, 2013	The Industrial and Commercial Employment (Standing Order) Ordinance, 1968 (Ordinance VI of 1968). Adapted, with amendments, for the Province of the Punjab in 2012.	
	Khyber Pakhtunkhwa Minimum Wage Act, 2013	The Minimum Wages Ordinance, 1961 (Ordinance, XXXIX of 1961) Adapted, with amendments, for the province of the Punjab in 2012	
	Khyber Pakhtunkhwa Payment of Wage Act, 2013		
	Khyber Pakhtunkhwa Workers Compensation Act, 2013		
	Khyber Pakhtunkhwa Maternity Benefits Act, 2013		

Pakistan joined the International Labor Organization (ILO) on October 31, 1947 and endorsed its various Conventions, earlier ratified by the Government of British India. The total number of such Conventions was 15. Pakistan is now either a signatory to or has ratified some two dozen international conventions and declarations, committing itself to improving labour rights and conditions of work.

Pakistan has ratified eight fundamental Conventions covering fundamental principles and various other rights at work. These include:

- Elimination of all forms of forced and compulsory labor (C-29)
- Freedom of association and collective bargaining (C-87, C-98)
- Elimination of discrimination in respect of employment and occupation (C-100, C-111)
- Abolition of forced labour (C-105)
- Effective abolition of child labor (C-138, C-182)

Pakistan has also ratified the following Conventions related to women workers:
- Underground Work Convention 1935 (C-45).
- Night Work Convention 1948 (C-89)

- Equal Remuneration Convention, 1951 (C-100)
- Discrimination (Employment and Occupation) Convention, 1958 (C-111)

While the 18th Amendment has rendered labour a provincial subject, implementation of international treaties and agreements remains a federal subject and only the federal government is a party to them under the Constitution. Incidentally, however, there exists no constitutional provision which makes its international commitments binding upon governments in the country.

Conventions 45 and 89 are supported by domestic legislation. The Khyber Pakhtunkhwa Assembly also passed the Khyber Pakhtunkhwa Payment of Wages Act, 2013; which, under Section-26, provides protection in wages and other benefits for work of equal value against discrimination on the basis of gender, religion, sect, colour, caste, creed, and ethnic background. However, the Minimum Wage Ordinance, 1961 [adapted in Punjab with amendments vide Minimum Wages (Amendment) Act 2012 (XV of 2012)] and the Payment of Wages Act 1936 provide no specific provisions on equal remuneration for men and women for work of equal value. The legislation is limited to specific workers; whereas, the Conventions are broader in their application.

Pakistan is yet to ratify the Convention on Workers with Family Responsibilities, 1981 (C-156). The Convention recognizes the problems of workers with family responsibilities and applies to men and women workers with responsibilities in relation to their dependent children and immediate family members who need their support.

This aspect needs to be taken into account in national labor policies, since the female workforce with family responsibilities is increasing. The Convention (C-156, Article 2) has broad applicability to all branches of economic activity and all categories of workers. Its compliance can help address the issues relevant to equal employment opportunities. The other two women specific Conventions that are yet to be ratified by Pakistan are Maternity Protection Convention 2000 (C 183) and the Convention for Home Workers 1996 (C-177).

Provisions for Women in Existing Labor Laws

The Industrial Relations Act, 2012, the Punjab Industrial Relations Act, 2010, the Khyber Pakhtunkhwa Industrial Relations Act, 2010, the Balochistan Industrial Relations Act, 2010 and the Sindh Industrial Relations Act, 2013, deal with the regulation and improvement of relations between employers and workmen and settlement of any differences or disputes arising between them. The scope of these laws is limited and they do not cover the agriculture sector, where a large number of women are employed; although Pakistan has ratified ILO's Right of Association (Agriculture) Convention1921 (C-11). Additionally, a number of other services, employing an increasing number of women, such as certain categories of staff employed in PIA, institutions for the treatment or care of sick, infirm, destitute and mentally unfit and police fall outside the ambit of this legislation.

However, Sindh Industrial Relations Act 2013 extends to the agriculture sector and also provides that, in establishments where women are employed, the trade union shall

include the women as executives and office bearers of the said trade union with the same proportion in which they are employed in the establishment.

The Factories Act, 1934 (Act XXV of 1934) [adapted in Punjab with amendments vide Factories (Amendment) Act 2012 (XIV of 2012)] covers working conditions, conditions of employment, health and safety, and labor inspection in factories. It contains following specific provisions relating to women workers:

- Provision of a room for children under age of six belonging to the female workers employed, provided, more than fifty women workers are ordinarily employed (33-Q-2).
- Hazardous operations - employment of women is prohibited in specific processes that exposes them to serious risk of bodily injury, poisoning or disease. [33-Q-4-b]
- Women are not allowed to clean, lubricate or adjust any part of machinery while it is in motion. (27-2).
- Enclosed latrines shall be provided separately for female workers. (21-b)
- Prohibition of employment of women near cotton openers. (32)
- No woman shall be allowed to work in a factory except between 6 a.m. and 7 p.m. If the employer arranges for the transport a woman with her consent may work up to 10:00 p.m. (45-b)

The Khyber Pakhtunkhwa Factories Act, 2013 also provides similar provisions vide sections 21-b, 27-2, 32, and 33-Q-4-b, of the Factories Act, 1934. Additionally, it also provides for a suitable room for children under age of six belonging to female workers employed, provided more than twenty women workers are ordinarily employed in a factory. Similarly, no woman shall be allowed to work in a factory except between 6 a.m. and 7 p.m., unless otherwise notified by the Government.

The Industrial and Commercial Employment (Standing Orders) Ordinance, 1968 (Ordinance VI of 1968) [amended in Punjab in 2012 and the Khyber Pakhtunkhwa Industrial and Commercial Employment (Standing Orders) Act, 2013] deal with working conditions and conditions of employment in industrial and commercial sectors, where twenty or more workmen are employed in Punjab and ten or more workers in Khyber Pakhtunkhwa. The laws are, however, silent on any aspect of women workers.

The Shops and Establishment Ordinance 1969, dealing with matters relating to the hours and other conditions of work and employment of persons employed in shops and commercial, industrial and other establishments, prohibits women from working after 7:00 p.m., except with the permission of the government.

The Export Processing Zones Authority Ordinance 1980 applies to industrial undertakings set up or operating in the Export Processing Zones. Herewith, laws such as the Workman's Compensation Act 1923, Factories Act 1934, Minimum Wage Ordinance 1961, Payment of Wages Act 1936, Provincial Employees Social Security Ordinance 1965, the Employees Old Age Benefit Act 1976 and the West Pakistan Industrial and Commercial Employment Ordinance 1968 – as adapted by the provinces – do not apply. As such, workers, including women workers, do not have any protection.

Laws relating to maternity benefits are almost the only protection that women workers enjoy. The West Pakistan Maternity Benefit Ordinance, 1958 entitles a woman to twelve weeks of fully paid maternity leave; subject to the condition that the employee has been in the service of the establishment for four months preceding the day of delivery of the child. The Ordinance forbids an employer to terminate the services of a woman worker during the period of maternity leave or within six months before delivery as a means of avoiding payment of maternity benefits; however, the employment can be terminated for other sufficient reasons.

The Mines Act 1923 prohibits women from working underground; however, it does not apply to women who do not perform manual work and hold positions of managerial or technical character or are employed in health and welfare services. The Mines Maternity Benefits Act 1941 provides women with similar maternity benefits as mentioned in th Maternity Benefit Ordinance 1958; however, the period of employment with the owner of the same mine, preceding delivery has to be six months in order to avail the benefit.

The Provincial Employees Social Security Ordinance 1965, Section 36 (Maternity benefit) provides women with similar maternity benefits as mentioned in the West Pakistan Maternity Benefit Ordinance, 1958, provided her contributions are paid or payable for not less than one hundred and eighty days, during the twelve calendar months, immediately preceding the expected date of her delivery.

Proposed Changes in Labor Laws

Presently, the Minimum Wage laws in Pakistan make no specific provision for equal pay for equal work. There is a need to apply ILO Convention on Equal Remuneration 1951 (C-100). Equal wage law for work of equal value without discrimination based on gender will promote equal opportunities, reduce wage inequalities and improving remuneration of low-paid and/or female dominated jobs and address many forms of gender discrimination. There is a need to insert provisions that:

- Outlaws differences in wages based on gender for work of equal value.
- Defines work of equal value to mean same work or work of a similar nature that requires the same skill, effort, and responsibility when performed in similar conditions by either a man or a woman and the differences, if any, between the skill, effort and responsibility required of a man and those required of a woman are not of practical importance in relation to the terms and conditions of employment.
- Protects pregnant women from risks involved in heavy physical work or work with dangerous materials.
- Ensures that the burden of proof of termination of service is unrelated to pregnancy rests on the employer.
- Allows a pregnant woman who has suffered a miscarriage or abortion paid leave for a reasonable period.
- Guarantees the right to return to the same or equivalent position and wage at the end of her maternity leave.

● Restrains employers from terminating a woman's employment for a reasonable period after child birth to ensure that the woman can return to her job at the same or equivalent position and for the same wage at the end of the maternity leave.

Laws Relating to Protection of Women

Development of International legislation

The United Nations reiterated faith in fundamental human rights, in the dignity of the human person, in the equal rights of men and women, and of nations large and small. The Commission on the Status of Women (CSW), set up a year later, provided the basis for gender-specific policies by drawing attention towards the challenges confronted by women. Resolutions were adopted by the United Nations Economic and Social Council (ESCOSOC) in 1952, and the General Assembly in 1954, urging member states to take measures to abolish traditional harmful practices that violated the physical integrity and human rights of women.

The United Nations preservance in affirming and reaffirming women's rights as human rights encouraged policy-making on the international and domestic level. Considered to be a landmark document, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1989 is one of the most widely ratified treaties in the world. It is the only international instrument addressing women's rights within political, civil, cultural, economic and social life. The developments, thereafter, laid the foundation for action. However, the degree to which states and non-state actors have been successful in implementing policies and laws varies widely.

The legislation enacted is inclusive of specific laws against violence drawn both in civil and criminal law. Article 2 of the United Nations Declaration on Violence against Women (1993) states that 'violence against women shall be understood to encompass, but is not limited to physical, sexual and psychological violence... including ... sexual harassment and intimidation at work'. CEDAW, in its General Recommendation No.12 of 1989, recognized sexual harassment as a form of violence against women; whereas, its General Recommendation No.19 of 1992 characterized it as sex discrimination and, hence, a breach of CEDAW.

Article 4 of the Declaration requires member states to condemn violence against women and not invoke custom, tradition or religion to avoid their obligations to eliminate such violence, besides developing penal, civil, labour and administrative sanctions in domestic legislation to punish and redress the wrongs caused to victims. The Recommendation of the Committee was later included in the 1993 UN convention, which defined the violation of women's rights and fundamental freedom and was explicit about sexual harassment and intimidation at work. The convention emphasized upon the states to identify a policy for its elimination.

The issue of violence against women was addressed as a severe violation of human rights at the 1993 Vienna Conference where it was noted that 'Gender-based violence and

all forms of sexual harassment and exploitation including those resulting from cultural prejudice and international trafficking are incompatible with the dignity and worth of the human person, and must be eliminated. This can be achieved by legal measures and through national actions and international cooperation in such fields as economic and social development, education, safe maternity and health care, and social support'.

The Vienna Conference was followed by United Nations General Assembly Resolution(s) 48/21 (1994), 50/201 (1996), 51/ 118 (1997), 52/148 (1998), 53/166 (1999) and 61/ 143 (2000). The resolutions stressed the importance of publicizing the Vienna Declaration and Programme of Action and also emphasized on the respective member states to devise a strategy for the removal of the obstacles and challenges impeding the realization of human rights. The expressed desire was reflected in Articles 55 and 56 of the United Nations Charter and the UN Declaration of Human Rights (1948). The momentum generated was a consequence of the Nairobi Conference (1985), Beijing Declaration (1995), Jakarta Declaration (1994) and the Nairobi Forward-Looking Strategies (1995).

The Beijing Declaration (1995) brought the focus on women and violence and the Platform for Action adopted included provisions on violence against women. Progress made in the implementation of the Beijing Declaration and Platform for Action was reviewed again at the Beijing Plus 10 and Beijing Plus 15 conferences in 2010, whence the sharing of experiences, good practices and emerging challenges was emphasized including those related to the Millennium Development Goal. The report published on the Nairobi-Forward Looking Strategies further helped place violence against women under the basic strategies for dealing and ensuring sustainable peace in a comprehensive manner.

The appointment of the Special Rapporteur on Violence Against Women by the United Nations Commission on Human Rights[1] -- followed by the publication of the two reports: 15 years of Special Rapporteur on Violence Against Women (1994-2009) and Women 2000: Gender Equality, Development and Peace for 21 Century -- helped in establishing the centrality of the issue and generated the momentum required to deal with its various facets. The international legal framework provided by international agreements, declarations and reports demanded the intensification of efforts to criminalize and eliminate all forms of violence against women.

Alongside UN conventions are regional policy and legal frameworks that address region-specific women's issues. The Inter-American Convention on the Prevention, Punishment and Eradication of Violence against Women (1994), Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2005), Council of Europe Convention on Action against Trafficking in Human Beings (2005) and Convention on Preventing and Combating the Trafficking in Women and Children for Prostitution in South Asia (2002) contributed in further strengthening international law and the monitoring of member states (United Nations, 2010).

Despite global recognition of the problem, however, violence against women remains staggeringly high. In some regions and countries, women's rights are considered antithetical to socio-cultural values, South Asia is a prime example in this respect. Both

Pakistan and India feature prominently as the third and fourth worst countries for women, respectively, on a list compiled by gender experts. In spite of the criminalization of different forms of violence, the region continues to be confronted with several forms of violence against women – honour killings, foeticide and infanticide, dowry killing, acid throwing and domestic abuse. The incidence of some forms of violence is higher in certain areas than others – foeticide in India and honour killings in Pakistan. Violence is justified on the pretext of religion and tradition and, unfortunately, the endogenous and exogenous tendencies have been allowed to flourish. The problems, in the case of Pakistan and Bangladesh, are also compounded by the inherent dichotomy between Islamic law and general law[2].

The tepid implementation of laws in South Asia can largely be attributed to the mindset of those responsible for implementing them, i.e., the intentional neglect on the part of government departments, police, lawyers and the judiciary. Often they are found-having the same cultural values as the men committing these crimes. As Coomraswamy (1996) notes, men in South Asia often have the silent collusion of other men in the police and judicial system, who have the common goal of maintaining a patriarchal system. Government officials are reputed to look the other way when incidents involving interpersonal violence take place. Unfortunately, even today, many civil servants and legislators use these laws as a tool for political mileage – an attitude that generates disregard to any procedural changes and weakens implementation of laws.

In spite of the consistent efforts made by South Asian civil society in raising awareness about women's issues, the social taboos and stigmas attached to violence have been slow to change. Legislation making continues to be viewed as the ultimate objective and the behaviour of 'complacency' impedes the 'effectiveness' of the laws enacted. In Muslim countries, women receive mixed, often ambivalent, messages owing to the division between moderate and extreme interpretations of Islam – a factor that is often divisive. For instance, pro-women legislation often faces resistance by religious groups vying to maintain the status quo.

Although not monolithic, violence against women in Muslim societies is perpetuated in similar cultural contexts and, often, in the name of religion. Honour killings, in particular, and violence against women, in general, are a manifestation of a belief system; whereby, women carry the burden of family honour. despite these constraints, however, many Muslim countries have made great advances in legislation and implementation, as specified in international conventions (Baden, 1992).

One exemplary instance of success in combating violence against women, albeit from the developed world, is the Violence against Women Act (VAWA) 1994[3] in the United States. The measures[4] taken by the US government have resulted in an estimated net benefit of $16.4 billion, including $14.8 billion in averted victim's costs. This is a highly cost-effective intervention.

Development of National Legislation

The Constitution of Pakistan guarantees the protection of life, liberty, human dignity, body, reputation, property and other basic freedoms. Article 4 states that it is the inalienable right of individuals to enjoy the protection of the law and to be treated in accordance with the law. And according to Article 8, laws inconsistent with or in derogation of fundamental rights are void.

Despite explicit constitutional provisions, 'women in Pakistan generally remain subject to a broad range of discrimination imposed on them through the collusion of tribal customs, religious interpretations, and an entrenched feudal system' (Ali, 2007). Although the Constitution prohibits any discrimination on the basis of sex, culture and its distorted form has played an important role in placing women at a disadvantageous situation. Today crimes are often committed against women in the name of religion, custom, and honour including harmful traditional practices such as honour killings, dowry murder, early marriages, *wanni*[5] and *swara*[6].

The first major post-independence legislation dealing with women's issues in Pakistan was the promulgation of Muslim Family Laws Ordinance (MFLO) in 1961, which made marital practices more transparent and accountable to the law. The primary aim of MFLO was to discourage polygamy, regulate divorce and introduce reforms to the classical law of inheritance. The reforms legalized the inheritance rights of orphaned children of deceased sons or daughters from their maternal or paternal grandparents and gave women the right of khula (demand for divorce) for dissolution of marriage. It also reformed the Dissolution of Muslim Marriage Act of 1939 relating to dower and maintenance in marriage and divorce; allowed constitution of an arbitration council for reconciliation between parties; made compulsory the registration of marriage with the local union council through a *nikah* (marriage) registrar; and made it necessary that a written notice be provided to the chairman union council by the husband for the pronouncement of *talaq* (divorce) to his wife.

Under this law, another marriage during the continuation of an existing marriage cannot be contracted without the prior permission in writing of the arbitration council nor can such a marriage be registered. However, not attaining the consent of the arbitration council or not obtaining the permission of the existing wife does not make the second marriage illegal.

The West Pakistan Family Court Act, 1964 resulted in the establishment of family courts for settlement and disposal of disputes related to marriage and family affairs. The 2002 amendment made it easier for women to get a khula within a specified time period. These laws are not confined to Muslims alone; they also apply to religious minorities. Despite a general failure in the implementation of laws, especially those related to women, family laws have seen progression.

The demand for dowry is also a form of violence that is accepted by society as a norm. The challenges confronted threaten the safety of the girl and cause delayed

marriages, marriages with inept or elderly men and financial crises. Demands for a dowry are often made before the marriage, which parents of the girl have to accept if they want to get her married. Subsequently, the bride is often humiliated or tortured by the in-laws for not bringing the expected amount. At times, the bride is subjected to extreme violence which takes many forms, including murder. Clearly the Dowry and Bridal Gifts (Restriction) Act, 1976[7] continues to be violated. In some cases, accidents are engineered (such as the tampering of a kitchen stove to cause victim's death) or the victims are set ablaze and claimed to be yet another accident or suicide. Due to lack of evidence and reporting, the conviction rate in these cases is very low.

Although many important amendments had been made to family laws at various points in time, the period between 1976 and 2004[8] is marked by a lull in terms of women-specific legislation. Women groups during these years advocated for the repeal of the Hudood Laws at national and international fora. While progress has been made in terms of legal provisions for reducing the negative effects of laws brought in through the Hudood Ordinances, discriminatory laws such as the Qanun-e-Shahadat and the Qisas and Diyat Ordinances are still in effect.

Legislatively, the decade of the 1980s was a dark era for women, beginning with promulgation of the Hudood Ordinance. The Ordinance consisted of five laws[9], of which the Zina and Qazf Ordinances were the most frequently used against women; as, under these laws, it was easier to register cases against them, with adultery being a non-bailable offence. The law also set a precondition; whereby, the rapist himself was to confess to have committed the act or, in the other case, the testimony of four pious adult Muslim men who witnessed the act was required. The precondition made justice for the victim an impossibility. Thus, it carried within it a possibility of converting a rape charge into zina (adultery). However, the law (The Offence of Zina) was amended with the Protection of Women Act, 2006.

The second important anti-women law was the Qanun-e-Shahadat Order, 1984, which amended the Law of Evidence 1872. Under the revised law, a woman's testimony was not weighed equal to that of a man in matters of financial or future obligations. This is despite Pakistan's obligations under international human rights law and, the Constitutional guarantees (Article 25) that there 'shall be no discrimination on the basis of sex' and that 'all citizens are equal before law' (Shirkatgah, 2004).

Violence has become a regular reality for the majority of women of Pakistan belonging to all social strata. The nature of violence ranges from unlawful confinement, assault, acid burning, and rape to murder on the pretext of 'honour' (Irfan, 2012). In 2004, the government adopted the Criminal Law (Amendment) Act 2004. This Act addressed the issue of 'honour crimes' *(karo kari or siyah kari)* and other such customary practices that were of concern to human rights organizations, women's organizations and civil society. The Act amended the PPC by introducing higher punishments for 'crimes of honour', prohibiting the practice of giving of girls in marriage or otherwise in badal-i-sulh. It included 'hurt to a victim' under honour crimes with *tazir*[10] in addition to payment of *arsh*[11].

One of the achievements of this Act was that it introduced a proviso to Section 302 (c) of the PPC which ensured that crimes committed on the pretext of honour be liable to maximum punishment under the provisions of *qisas* i.e., death [Section 302 (a) PPC] or death or imprisonment for life as tazir [Section 302 (b)], and not be subject to judicial discretion under the same Section (302-C). Previously, the provision of Section 302(c) left it to the discretion of the courts to decide whether according to 'the injunctions of Islam' in certain incidents of murder the punishment of *qisas* was applicable or not. Therefore, most honour crimes were dealt with under this provision with only light sentences awarded to the offenders. However, this Act does not affect the application of the laws of *qisas* and *diyat*.

The real issue is of waiver or compounding provided by these laws in which the perpetrators are given the advantage of seeking forgiveness from the heirs of the victim. The heirs of the victim can forgive the murderer in the name of Allah without receiving any compensation or *diyat* (blood money) (Section 309), or compromise after receiving *diyat* (Section 310). Under the current Qisas and Diyat Law, as applied in cases of honour crimes, if and when the case reaches a court of law, the victim's family may 'pardon' the murderer (who most often is one of them), or be pressurized to accept *diyat* as compensation. The murderer then goes free. Where crimes are committed by or with the consent of family members (at times killers are hired by the family) Qisas and Diyat laws help in protecting the criminals. Impunity has been the single most important factor encouraging honour killings in Pakistan. Hence, the law offers little by way of providing justice to the victims, as it is most likely that the perpetrators will continue to be able to escape punishment.

In 2006, the Protection of Women Act[12] brought the laws relating to *zina* and *qazf* (false accusation) in conformity with the stated objectives of the Constitution and provided relief and protection to women against the misuse and abuse of the law[13]. The *hadd* and *tazir* offences/punishment were separated, *zina-bil-jabr* (rape) was separated from fornication/adultery and shifted to the PPC from the Zina Ordinance; and the offence of fornication (all sex outside marriage) was inserted in the PPC as separate sections (496B & 496C).

The Women's Protection Act, 2006 amended the Criminal Procedure Code (Cr. P.C.) to provide that only the court of sessions, on a complaint, may take cognizance of zina and qazf cases. Section 203-C Criminal Procedure Code brought a procedural change in lodging of a complaint in cases of fornication, with the result that it has become increasingly difficult to wrongly accuse anyone for fornication -- bringing about a drop in the number of cases reported under this offence. The offence of fornication has been made bailable so that the accused, generally women, do not languish in jail during trial. However, in some cases women are unable to submit the surety bond for bail due to financial constraints. Additionally, under this law (Women's Protection Act, 2006) women awaiting trial for more than six months are released on bail in non-bailable offences. The Act, by separating the offence of *zina* with *zina-bil-jabr*[14], helped in addressing the

conviction of a woman for adultery. Moreover, rape has been made punishable with 10 to 25 years of imprisonment and death or life imprisonment in case of gang rape. Lian[15] is a form of dissolution of marriage. A woman who is accused of adultery by her husband and denies the charge can seek dissolution of her marriage. Section 14 of the Qazf Ordinance refers to lian and also provides a procedure for it.

Efforts have, however, been underway to protect women from violence; post-2008, in particular. The increase in the process of legislation, along with a comparatively more proactive women's caucus is amply evident by the number of private bills submitted in the National Assembly by women representatives.

Table 8.1 shows that out of a total of 147 private bills tabled between March 2008 and February 2012, 76 were those brought by women alone. Out of these, 27 were on women-related issues. The number of private bills tabled by women parliamentarians along with their male counterparts during this period was 32, out of which 3 were on women's issues. Thus, 51 percent of the total number of private bills tabled in the parliament were by women legislators; whereas, out of the remaining 49 percent almost half were those in which women contributed. Women parliamentarians successfully moved bills on the issues of sexual harassment in the workplace, domestic violence, honour killings, inheritance, customary practices of *wanni* and *swara*, marriage with the Quran, citizenship rights, and the Hudood Laws for the uplift and improvement of the women's status and also to end injustices and discrimination. As a result, seven pro-women laws were passed during this period.

Table 8.1
Number of Private Bills Tabled in the National Assembly by Gender

Total number of Private Bills tabled from March 2008 to February 2012 (existing Parliament)	147
Bills tabled by Women Parliamentarians	
Total number of bills tabled by Women Parliamentarians	76
Out of these, Bills Related to Women's Issues	27
Bills tabled by Women Parliamentarians along with their Male Counterparts	
Total Number of Private Bills tabled by Women Parliamentarians along with their Male Counterparts	32
Out of these, Bills Related to Women's Issues	3

Source: National Assembly of Pakistan (website)

Nevertheless, implementation remains a challenge. In the recent past, some male parliamentarians have justified heinous crimes on the basis of 'customary practices' and 'traditions'.[16] However, the enactment of the law on honour killings, in 2004, and the Prevention of Anti-Women Practices (Criminal Law Amendment) Act, 2011 demonstrate that acts committed against women under the guise of 'customary practices' and accepted as a tradition are criminal offences for which there is no place in a civilized society.

Despite amendments in laws, there is still no separate legislation on incest. Although rape is a non-compoundable offence, courts are generally not vigilant to out-of-court

settlements where the rape survivor may be blackmailed or coerced into dropping the charge. In certain cases, where bail is granted to the accused, the perpetrator can threaten and harass survivors and their families. Additionally, the poor quality of investigation, commonly in cases of sexual assault, is another issue. Investigation officials are not properly trained in standard procedures, especially those pertaining to victims of sexual crimes.

There is a heavy reliance on corroborative evidence in the form of medical and forensic reports; despite various studies indicating that in many assaults there may be no marks of violence, injuries or resistance by the survivor. This reliance exists despite the provision in the law that the testimony of a survivor is sufficient for conviction if it inspires confidence.

Certain severe forms of domestic abuse, considered a private matter, generally go unreported. In 2009, the Domestic Violence (Prevention and Protection) Bill was passed unanimously by the National Assembly on August 4, 2009, but the bill lapsed after the Senate failed to pass it within the three months period as required under the Constitution. Recently, however, a private member's bill, Domestic Violence (Prevention and Protection) Bill, 2012, extending only to Islamabad territory was passed by the Senate. For this Bill to become an Act, it would have to be passed by the National Assembly and signed by the President.

The Bill proposes a protection mechanism for domestic violence against women, children and the vulnerable[17], and comprehensively defines 'domestic violence' covering all aspects of gender-based violence, including assault, criminal force, criminal intimidation, harassment, hurt, stalking, confinement and economic or financial deprivation in its definition. As offences such as assault, criminal force, criminal intimidation, hurt, confinement etc. are already mentioned in the PPC, separate punishments for these do not need to be specified. However, punishments for offences such as economic, emotional, sexual and verbal abuse, stalking and other similar offences mentioned in the Bill, but not mentioned in the PPC, need to be specified. It provides for monetary relief[18], protection[19] and residence orders[20] for the aggrieved, and proposes a minimum imprisonment of at least six months and a fine of 100,000 rupees for non compliance.

Many women face sexual harassment in public places such as markets, streets and parks, public transport and in private gatherings or homes. In some cases, the authority is abused to gain sexual favours at the workplace. In 2010, two very comprehensive laws, Criminal Law (Amendment) Act, 2010 (on sexual harassment)[21] and the Protection Against Harassment of Women at the Workplace Act, 2010 were enacted to prevent and criminalize the offence of sexual harassment of women at the workplace – an issue which in the past was met with a dismissive attitude coupled with the culture of blaming the woman.

The laws added a clause to section 509 of the Pakistan Penal Code; whereby, insulting modesty or causing sexual harassment is now defined more comprehensively and includes sexual advances and favours, written and verbal communication, conduct of

sexual nature, and sexually demeaning attitudes creating an intimidating, hostile or offensive work environment in the definition of sexual harassment. Any person found guilty is liable to be penalized with imprisonment of up to three years or a fine of up to 500,000 Pakistani rupees or both. The enactment of this law, it is hoped, will bring an attitudinal change in the Pakistani society.

Protection Against Harassment of Women at the Workplace Act, 2010 provides for protection of women against harassment at workplace. The law provides for the constitution of an enquiry committee by organizations to enquire into complaints of sexual harassment and procedures to hold such enquiries. It is the responsibility of the employer to adopt a code of ethics at the workplace. In case of non compliance they would be liable to a fine which may extend to one hundred thousand rupees. According to the Sexual Harassment Watch, 424 regulatory bodies and government and private organizations have adopted the anti sexual harassment code of conduct. An employee can report non-compliance by filing a petition before the District Court.

In 2011, three laws were passed - Prevention of Anti-Women Practices (Criminal Law Amendment) Act, 2011, The Acid Control and Acid Crime Prevention Act, 2010 and The Women in Distress and Detention Fund (Amendment) Act, 2011. The Women in Distress and Detention Fund (Amendment) Act, 2011 amends an earlier piece of legislation, i.e. the Women in Distress and Detention Fund Act, 1996.

Prevention of Anti-Women Practices (Criminal Law Amendment) Act, 2011 dealing with customary practices recommends punishments for social practices like wanni, *swara* or *budla-i-sulh* (wherein women are traded to settle personal, family or tribal disputes), forced marriage or marriage with the Holy Quran so that the family wealth is not taken outside the family or in other case prevents women from inheriting property. This law proposes a minimum benchmark for penalizing those involved in anti-women practices. A new chapter on 'Offences against Women' has also been inserted in the PPC prohibiting forced marriage, marriage with the Quran and prevention of women from inheriting property. The law, however, only prohibits and suggests punishments for practices like *wanni*, *swara* or *budla-i-sulh*, it does not declare marriages so contracted void. Additionally, it only penalizes those who give a female in such a marriage or compel her into entering such a marriage, which generally is the woman's family, but is silent on suggesting punishments for the bridegroom and his family, who are equally responsible for such crimes. Additionally, this law does not propose a mechanism to ensure that such cases are reported and reach the court of law; given that they largely go unreported.

Acid Control and Acid Crime Prevention Act, 2010 tightens the definition of disfigurement by inserting new sections[22] in the PPC. The police may arrest the accused without a warrant of arrest issued by the court. The offence is not bailable and non-compoundable. However, the Act does not provide a mechanism for regulating and monitoring the acid trade, establishing a rehabilitation centre for victims of acid crimes, and providing legal aid to the victims.

The Criminal Procedure Code Amendment Act, 2011 is said to be a reversal of the bail laws. Earlier (by virtue of the Women's Protection Act, 2006) bail was provided to women as a right in non-bailable offences if she was arrested or detained without warrant. Except when there were grounds to believe that she was guilty of an offence punishable with death or imprisonment for life or ten years. The bail is now provided only at the discretion of the court depending on the merit of the case. Apparently women will again be wrongly abused and detained in prisons on account of family disputes. The explanation forwarded for the amendment is that the Women's Protection Act[23] was being misused by men who used women to commit other types of crimes.

Despite the recent efforts to reform the law, empowering women to access these provisions remains a challenge. Due to the absence of a gender-sensitive judiciary, the prevalent patriarchal and feudalistic mindset amongst male legislators, lack of legal aid, procedural delays, grey areas in jurisdictional matters, and weak legal drafting, litigants are left vulnerable to cultural and social biases. Additionally, women's lack of knowledge of legal provisions and court procedures, cost of litigation, lack of family support and threats from perpetrators along with the misogynistic attitudes make it difficult for them to resort to litigation.

Therefore, even though the laws have been promulgated, their implementation continues to be weak. Implementing agencies such as the police, union councils, and even the courts, have little knowledge, training or understanding about the reasoning behind these laws and how they are meant to be applied. Thus, they are rendered almost useless without the required infrastructure and support. The combating strategies need to be inclusive of a comprehensive strategy in targeting the gaps in the justice system, strengthening legislation by repealing harmful and discriminatory laws like Qisas and *Diyat*, and promoting education on human-rights.

There is a need for a comprehensive human rights-based legislative approach to all forms of violence against women, encompassing not only criminalization and effective prosecution and punishment of perpetrators but also the prevention of violence, the empowerment, support and protection of survivors, and the creation of mechanisms to ensure women's access to justice and effective implementation of the legislation. A judicial reform package that restores the confidence of women victims of violence in the police, judiciary, and the justice they dispense needs to be introduced to render it easier to report cases of violence and litigate for their rights.

Key Findings and Policy Implications

Comprehensive legislation provides the foundation for a holistic and effective response. Such legislation much be consistently enforced and monitored, and adequate resources must be allocated to address the problem. Personnel and officials working in the field must have the skills, capacity and sensitivity to apply the spirit and letter of the law. Laws must inform a concerted effort that includes education, awareness raising and community

mobilization. They must also contribute to tackling discriminatory stereotypes and attitudes, and they must mandate the research and knowledge building that are necessary to support policy development. An evidence based approach ensures that the development and design of legislation is well informed, and can enhance the quality and potential future effectiveness of legislation. Therefore, legislation should be prepared drawing on reliable evidence including data and research on the scope, prevalence and incidents of all forms of violence against women, on the causes and consequences of such violence and on lessons learnt and good practices from other countries in preventing and addressing violence against women.

NOTES

1. The Human Rights Council replaced UNCHR in 2006 vide UNGA Resolution no. 60/ 251.

2. In some of the muslim countries general law is juxtaposed with Shariah law.

3. Violence Against Women Act (VAWA) of 1994, a US federal law, was a wide-ranging law that created funds for domestic violence programmes along with new civil rights remedial measures for victims of gender-based violence.

4. The VAWA was responsible for the allocation of 4 billion dollars to states and local communities to deal with violence against women by developing specialised law-enforcement units specifically created for victims, providing services to victims, improving prosecution of these crimes, and training professionals about domestic violence.

5. A child marriage custom in the tribal areas of Pakistan, also widely prevalent in Punjab. This custom is tied to blood feuds among the different tribes and clans where young girls are forcibly married to members of opposing clans in order to resolve feuds or compensate for a crime.

6. A Pashto word denoting a child marriage custom in the tribal areas of Pakistan and Afghanistan. This custom is used to settle blood feuds between different tribes and clans where young girls are forcibly married to members of the enemy clan in order to compensate for a crime committed against a member of that clan (always by a male), and to end a feud.

7. Aggregate value of dowry and presents given to the bride by her parents and the aggregate value of the bridal gifts or of the presents given to the bridegroom shall not exceed five thousand rupees.

8. In 1976 Dowry and Bridal Gifts (Restriction) Act was enacted, while in 2004 came the law on Honour Crimes.

9. These were (i) Offence against Property Ordinance 1979 (ii) Offence of Zina Ordinance 1979 (iii) Offence of Qazf (false accusation) (iv) Prohibition Ordinance (1979), and (v) Execution of Punishment of Whipping Ordinance 1979

10. Any offence for which punishment is not stated in the Qur'an and Sunnah is Ta'zir which is a subject of State legislation.

11 . Pre-specified compensation assessed at certain percentage of the value of diyat (blood money).

12 . The Protection of Women Act, 2006 amended the Pakistan Penal Code, the Criminal Procedure Code, Dissolution of Muslim Marriages Act 1939, Offence of Zina Ordinance 1979, and Qazf Ordinance 1979.

13 . The offences listed in Sections 11 to 16 of the Offence of Zina Ordinance, were inserted as sections 365B, 367A, 371A, 371B, 493A and 496A of the Pakistan Penal Code, 1860. Sections 12 and 13 of the Offence of Qazf Ordinance, 1979 were omitted.

14 . Under the Hudood laws, the two were lumped together. The kind of proof required earlier increased easy victimisation of women.

15. Lian means where the husband has accused his wife of adultery and she does not accept the accusation as true.

16. In 2008, five women were buried alive in Balochistan for wishing to marry of their own will. Senator Israrullah Zehri openly justified the act by claiming it was a tribal custom.

17. A person is vulnerable due to old age, mental illness, handicap, physical disability or other special reasons.

18. A court order directing the aggressor to pay monetary relief to meet expenses incurred and losses suffered by the aggrieved, such as suffering as a consequence of economic abuse by the aggressor, loss of earning, medical expenses, etc.

19. A court order prohibiting the aggressor from committing or aiding and abetting in the commission of any form of violence at home or in public against the aggrieved; any form of communication with the aggrieved; violence against dependents or relatives of those helping the aggrieved against domestic violence; and any other act as specified in the protection order.

20. A court order restraining the aggressor from dispossessing or disturbing possession of the aggrieved from the household; restraining aggressor or his relatives from entering the household; directing aggressor to secure alternative accommodation for the aggrieved; and also to pay rent if so required. Court may impose other conditions and directions necessary for the safety and protection of the aggrieved.

21. Amendment to the Pakistan Penal Code and Criminal Procedure Code, which added a clause to Section 509 of the PPC.

22. Section 336(A) and 336(B) in Penal Code, wherein the Section 336(A) 'hurt' caused by corrosive substance is explained and under the explanation 'corrosive substance' is defined. In Section 336(B) 'Punishment for hurt by corrosive substance' is imprisonment for life or imprisonment of either description, which shall not be less than 14 years and a minimum fine of Rs1 million. The victim cannot agree for a consideration not to prosecute; and lastly the Court of Session will be the trial court.

23. The rationale given is that the procedures for women's arrest and detention had become increasingly lenient with the introduction of the Women's Protection Act 2006.

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Annexure

1 | Methodological Framework

The study uses a mixed methods methodology that combines both quantitative and qualitative data to analyze the socio-economic characteristics of FHHs in Pakistan. Of the two broad categories of the mixed methods approach, the single approach design (SAD) is used because it employs additional quantitative and/or qualitative strategies to enhance the quality of research. To ensure representativeness and diversity of FHHs in Pakistan, the sample includes respondents from all four provinces of Pakistan.

Data from Secondary Sources

The literature review carried out for the research has helped in understanding the diverse interpretations and definitions of female-headed households both internationally and regionally. Information on socio-economic characteristics related to decision-making and empowerment of FHHs was collected and reviewed. The sources of literature reviewed include the SPDC library, library of the Applied Economics Research Centre (AERC), library of University of Karachi, various online journals through Blackwell Synergy, Springerlink, and web portals of international journals.

The PSLM survey of 2004-05 was used to calculate the percentage share of female headship in each province. This formed the basis of sample division among the four provinces. According to the PSLM survey 2004-05, only 4816 (6.6 percent) of 73,309 households were headed by females, with Punjab having the highest share of 56.5 percent followed by Khyber Pukhtunkhwa (KPK) with 32.1 percent. In Sindh and Balochistan, the share was 8.7 percent and 2.7 percent respectively.

The district-wise total number of households by male and female headships was also calculated from the PSLM survey 2004-05. The percentage share of districts in the total number of households in each province was calculated to find the concentration of female-headship in a particular district.

Primary Data Collection through Field Survey

A base-line survey was conducted to compare the socio-economic characteristics of FHHs and MHHs. A questionnaire was designed to collect data at household level. The

questionnaire covered both quantitative and qualitative household characteristics such as empowerment and decision-making, level of social service provision, total family income, household expenditure patterns, decisions on resource allocations and protection through social safety nets.

The survey was followed by analysing primary and secondary data using quantitative techniques to develop a socio-economic profile of FHHs in Pakistan. A comparative analysis of overall well-being of households headed by females to those headed by males was carried out to assess relative deprivation. This is an approach that facilitates understanding of inter-temporal issues and is recommended for future research endeavors.

Sample Size

A total of 804 FHHs and an equal number of MHHs in the same vicinity were considered for comparative analysis. As mentioned earlier, the provincial shares of FHHs were taken from the PSLM survey 2004-05 and were further used to calculate the provincial distribution of the total sample size. Following the share composition of PSLM 2004-05, the total FHHs sample was calculated at 453 households for Punjab, 256 households for KPK, 70 households for Sindh and 21 households for Balochistan. The province-wise sample was further rationalized by giving more weight to KPK and Sindh from the total sample of Punjab. The reason for this rationalization was to include the migration effect on female headship particularly in case of KPK, and the diversity that shapes female headship. Thus, the total sample size was 400 households for Punjab, 100 households for Sindh, 280 for KPK and 20 for Balochistan.

The province-wise household sample was further divided in district wise samples on the basis of the share of the district in the provincial total. At district level, the enumeration blocks were identified by the stratified random selection method ensuring that enumerator blocks covered almost all the district boundaries. The Union Council (UC) was the primary sampling unit (PSU) for both rural and urban areas.

Selection of Sample Area

The criteria for district selection included the geographical spread, level of development/deprivation and percentage share of FHHs in the total number of households in the province. A total of 13 districts were selected from the four provinces of Pakistan. These included districts of Lahore, Faisalabad, Jhelum, Rahim Yar Khan and Bahawalpur in Punjab and Karachi and Khairpur in Sindh. The district of Karachi is in the south of the province, while district of Khairpur has two distinct characteristics. It is geographically located in the north of the province and has medium level of development. In KPK, the districts of Haripur, Mansehra and Abbottabad were identified to represent the Hazara Division while the districts of Peshawar and Nowshera were identified to represent the ethnically dominated Pukhtun population. Because of the small sample size in the province of Balochistan, only the districts of Quetta and Pashin were selected.

Survey Questionnaire

The survey questionnaire comprised eight modules covering various characteristics: household size, employment, decision making, empowerment, assets, income and

expenditure. Given the low incidence of FHHs in the survey area as compared to MHHs, a screening of households was conducted to find those households headed by females. This process of screening continued till a FHHs was found. After the completion of the survey questionnaire from FHHs, the survey questionnaire with MHHs was conducted in the same vicinity. Efforts were made to acquire in-depth, comprehensive and un-biased information on the decision-making process, empowerment and level of well-being for FHHs and MHHs in different income brackets.

Survey Methodology

The survey methodology was based on the stratified random and cluster sampling[1] approach that increases confidence in making generalizations to particular sub-groups or areas. The selection of FHHs in a survey area/sub area was carried out through the purposive sampling method[2]. As stated in the preceding section, a screening technique was used for the identification of FHHs and once the survey team had completed the questionnaire from FHHs, the next household was selected for MHHs survey. For each FHH included in the sample, one MHHs in the same vicinity was included as the control group. In each UC, a total of 17 to 18 questionnaires were completed with an equal division between FHHs and MHHs.

Variations in different cultures and traditions in the provinces of Pakistan can only be measured by a rural-urban division of the sample size. The survey tried to capture this variation by including populations living in rural UCs, in major urban towns such as Karachi, Lahore, Faisalabad and Peshawar. The urban-rural division of the total sample was 60 percent and 40 percent respectively. The other classification was rural Union Councils (UCs) in the rural taluka of the district.

NOTES:

1. In probability sampling strategy, stratified cluster sampling design is used to study the population divided into non-overlapping strata and teh sample is selected from each stratum independently.

2. Purposive sampling method is a non-probability sampling technique used to target the group directly.

2 Benefit Incidence Analysis: Methdological Framework

The technique employed to assess gender differentials in public service provision in this study is based on a 'benefit incidence analysis.' This has become an established approach in estimating the distribution of public expenditure since the pioneering work on Malaysia by Meerman (1979), and on Colombia by Selowsky (1979). In the mid-1990s there was a resurgence of interest and incorporation of the gender dimension in this approach, reviewed in Van de Walle and Nead (1995), Van de Walle (1998) and Lionel Demery (2000).

The technique usually involves a three-step methodology. First, estimates are obtained of the unit cost of providing a particular service. These are usually based on officially reported public spending on the service in question. Second, these unit costs are imputed to households, which are identified (usually through a household expenditure survey) as users of the service. Households, which use a subsidized public service in effect, gain an in-kind transfer, the size of which depends on the unit subsidy involved and the number of units consumed by the household. Finally, aggregated estimates of benefit incidence are obtained in groups arranged by income and sex. In brief, the benefit incidence analysis measures the distribution of in kind transfers across households.

Benefit incidence analysis of public expenditure therefore brings together two sources of information. First, data on the government subsidy (estimated as the unit cost of providing the service minus any cost recovery by the government) allocated to health. Second, information on the use of public health services by individuals and households, which is usually obtained from household surveys.

The disaggregated benefit incidence analysis by gender is based on the understanding that government provides an in-kind subsidy by subsidizing education and health services. Individual members of the household can gain this subsidy by enrolling their children in publicly subsidized educational institutions and by visiting publicly subsidized health institutions. If more male than female members utilize the services of publicly-funded education and health care then there will be a gender difference in benefit incidence, simply because more of the government subsidy will be utilized by males than by females.

Education

The three steps (Demery, 1996) for disaggregated benefit analysis can be transformed mathematically by considering the group-specific benefit incidence of government spending on education:

$$X_i \equiv \sum_{i=1}^{3} E_{ij} \frac{SE_i}{E_i} \equiv \sum_{i=1}^{3} \frac{E_{ij}}{E_i} SE_i \quad \dots \quad \dots \quad \dots \quad \dots \quad [1]$$

Where

i =1,..,3, denotes the level of education (primary, secondary, and tertiary)

j =1,..,5, denotes the income quintiles (rich, upper middle, middle, lower middle and poor)

X_j is the value of the total education subsidy imputed to quintile j. E_{ij} represents the number of school enrollments of group j at education level i, and E_i the total number of enrollments (across all groups) at that level. SE_i is government net spending on education level i (with fees and other cost recovery netted out).

$$x_j \equiv \sum_{i=1}^{3} \frac{E_{ij}}{E_i} \left[\frac{SE_i}{SE} \right] \equiv \sum_{i=1}^{3} e_{ij} \, se_i \quad \dots \quad \dots \quad \dots \quad \dots \quad [2]$$

The share of the total education subsidy (SE) accruing to females (x_j) is given by:

Clearly, this share is determined by two factors: the share of the females and males in total enrollments at each level of education (e_{ij}), and the share of each level of education in total education spending (se_i). e_{ij} is determined by household enrollment decisions whereas s_i reflects government spending allocations.

$$Y_i \equiv \sum_{i=1}^{3} H_{ij} \frac{SH_i}{H_i} \equiv \sum_{i=1}^{3} \frac{H_{ij}}{H_i} SH_i \quad \dots \quad \dots \quad \dots \quad \dots \quad [3]$$

Health

Similar to education, the three steps for disaggregated benefit analysis can be transformed mathematically for the group-specific benefit incidence of government spending on health:

Where

i =1,..,3, denotes the level of health facility (Hospitals and dispensaries, Basic Health Unit (BHU)/Rural Health Centres (RHC), and Lady Health worker/visitor (LHW/LHV))

j =1,..,5, denotes the income quintiles (rich, upper middle, middle, lower middle and poor)

Y_j is the value of the total health subsidy imputed to group j. H_{ij} represents the number of visits of group j at health facility i, and H_i the total number of visits (across all groups) for facility i. SH_i is government net spending on health facility i (with user fees and other cost recovery netted out). The share of the total health subsidy (SH) accruing to females (x_j) is given by:

$$y_j \equiv \sum_{i=1}^{3} \frac{H_{ij}}{H_i} \left[\frac{SH_i}{SH} \right] \equiv \sum_{i=1}^{3} h_{ij}\, sh_i \; \dots \qquad \dots \qquad \dots \qquad \dots \qquad [4]$$

Clearly, this share is determined by two factors: for a particular income quintile the share of females and males in total visits at each health facility (e_{ij}), and the share of each health facility in total health spending (sh_i). e_{ij} is determined by household and individual decisions whereas sh_i reflects government spending allocations.

Selection of period under review
In Pakistan household surveys are conducted at irregular intervals. These usually depend on the availability and approval of funds for institutes of statistics. This limitation provides few choices for selection of a time period for this study. In this study, 1998-99 was chosen as a base year since there was a change in government in 1999. In order to analyze the impact of reforms the study aims to use micro data of the recent Household Integrated Economic Survey (HIES 2008), which contained data on household income and consumption expenditure for the year 2007-08. This dataset however is not available for public use and there are contradictory statements about the validity of poverty estimates based on the consumption expenditures of this dataset. In the absence of HIES 2008, the other two available choices were HIES 2004-05 and HIES 2005-06. Among them, HIES 2005-06 although a comparatively recent survey, HIES 2004-05 was chosen for analysis due to two reasons: (1) HIES 2004-05 was conducted with Pakistan Living Standard Measurement (PSLM) Survey, which provides comprehensive data on socio-economic variables based on a larger sample size that offers greater choices for explanation based on more robust datasets, (2) HIES 2004-05 was heavily reported in poverty debates and used as a reference point (Pakistan Economic Survey 2006-07 to 2008-09). Therefore this study provides comparative results of benefit incidence analysis based on 1998-99 and 2004-05.

Sources of Data
The information on the income of households and enrollments in public schools, colleges and universities at various levels of education is taken from the micro data of Household Integrated Economic Survey (HIES 1998-99 and HIES 2004-05) and Pakistan Social Living Standard Measurement (PSLM) Survey Round 1: 2004-05. Both HIES and PSLMS

are national surveys conducted by the Federal Bureau of Statistics. They provide household and community level data on various indicators related to education, health, water & sanitation and population welfare. The data on public spending on education and health is taken from the Poverty Reduction Strategy Paper (PRSP) annual progress report for the year 2004-05, Federal Demand for Grant and Appropriations 2005-06, and Provincial Demand for Grants 1999-00.

3

Survey Methodology

The widespread and diverse nature of rural non-farm activities has been recognised, along with the multifarious factors which facilitate and drive rural income diversification. Therefore, careful selection of clusters is essential to capture variation in key factors which affect the size of the rural non-farm sector. The cautiously selected sample facilitates to draw generalizable lessons about what works or what determine in particular situations.

A three-stage stratified sample design was adopted for rural household survey. One district from each agro-climatic zone of Punjab and Sindh was selected for enumeration. According to classification of Pakistan agro-climatic zones (Chart A3.1), Khyber Pakhtunkhwa and Balochistan contain one zone each. Therefore, it was decided to select two districts from these provinces. Thus at the first stage of sampling, overall 11 districts of Pakistan were selected for the survey.

District selection is based on two important considerations, viz., rural deprivation (a 'push' factor for rural non-farm employment) and proportion of non-farm employed labour force (a 'pull' factor for non-farm employment). The information regarding the non-farm sector is obtained from Pakistan Social & Living Standards Measurement Survey (PSLM, 2008-09), while district rankings in term of rural deprivations was obtained from Jamal and Khan (2007). The distribution of districts across agro-climatic zones and the selected districts for the rural household survey are displayed in Table-A3.1.

The next step was to determine appropriate sample size for each selected district given the cost and time constraints. Two important parameters are vital for deciding the statistically desirable sample size, viz., the confidence level (Z) and sampling error (e). The confidence level is expressed as a percentage and represents how often the true percentage of the population lies within the confidence level. On the other hand, all samples are subject to sampling error, which is the difference between the results obtained from the survey sample and those that would have been obtained had the entire area surveyed. For a fairly homogenous cluster, a tolerated sampling error of 10 percent

Chart A3.1
Pakistan Agro-Climatic Zones

1. Rice/Wheat Punjab
2. Mixed Punjab
3. Cotton/Wheat Punjab
4. Low Intensity Punjab
5. Barani Punjab
6. Cotton/Wheat Sindh
7. Rice/Other Sindh
8. Other NWFP
9. Other Balochistan
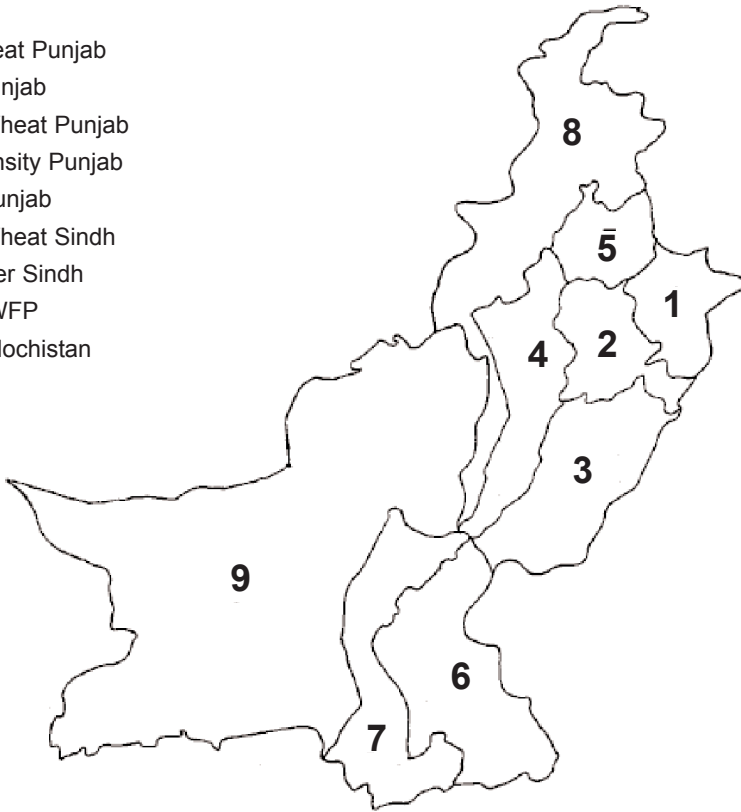
Source: Source: Pickney, Thomas C. 1989. "The Demand for Public Storage of Wheat in Pakistan", Research Report 77, International Food Policy Research Institute (IFPRI)

with 95 percent confidence level is considered acceptable. According to the formula[b], a sample size of 100 (96 to be exact) for each district is yielded using the above values of sampling error and confidence level.

Seven Primary Sampling Units (villages) in each district were randomly selected from the list given in the District reports of Population Census, 1998. Sixteen households[c] (Secondary Sampling Units) were chosen from different starting points. Households were selected by systematic sampling procedure with a random start[d]. Thus from each district, 112 households were enumerated. Provincial distribution of realised sample is furnished in Table A3.2.

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[b] Optimal Sample Size = Z^2 [p(1-p)] e^2. The p in the formula depicts estimated proportion of indicators of interest. The proportion value of 0.5 is normally used which gives maximum sample size.
[c] Federal Bureau of Statistics, now Pakistan Bureau of Statistics (PBS) generally conducts interviews of 16 households from each selected rural PSU.

[d] For the selection of starting points, villages were divided into four hypothetical quarters. Four interviews were conducted in each quarter. A skipping of five households was made after one successful interview.

Table A3.1
Selected Districts for Household Survey across Agro-Climatic Zones
[*Districts surveyed are presented in bold and larger font*]

	Agro-climatic Zones	Districts
Central Punjab	Rice/Wheat Punjab	Sialkot, Gujrat, Gujranwala, Sheikhupura, Lahore, Kasur, **Narowal**, Mandi Bahauddin, Hafizabad
Central Punjab	Mixed Punjab	Sargodha, Khushab, **Jhang**, Faisalabad, Toba Tek Singh, Okara
South Punjab	Cotton/Wheat Punjab	Sahiwal, Bahawalnagar, **Bahawalpur**, Rahimyar Khan, Multan,
South Punjab	Low Intensity Punjab	Dera Ghazi Khan, Rajanpur, **Muzaffargarh**, Layyah, Mianwali, Bhakkar and Dera Ismail Khan of Khyber Pakhtunkhwa
Upper Punjab	Barani Punjab	Attock, Jhelum, Rawalpindi, Islamabad, **Chakwal**
Sindh Cotton	Cotton/Wheat Sindh	Sukkur, Khairpur, Nawabshah, Hyderabad, Tharparkar, Nowshero Feroz, Ghotki, Umerkot, **Mirpur Khas**, Sanghar
Sind Rice	Rice/Other Sindh	Jacobabad, **Larkana**, Dadu, Thatta, Badin, Shikarpur, Karachi
Khyber Pakhtunkhwa	Khyber Pakhtunkhwa	All Khyber Pakhtunkhwa except Dera Ismail Khan **[Peshawar, Haripur]**
Balochistan	Balochistan[a]	All Balochistan **[Quetta and Ziarat]**

[a] On the basis of selection criteria, initially districts Khuzdar and Quetta were selected for the survey in Balochistan province. However, due to the law and order situation in the province, it was not feasible to conduct the survey in Khuzdar. Therefore, the survey was carried out in district Ziarat

Table A3.2
Provincial Distribution of Sample Household

Province	Household Surveyed	Error Margin (%) [95% Confidence Level]
Punjab	560	4.14
Sindh	224	6.6
Khyber Pakhtunkhwa	224	6.6
Balochistan	224	6.6
Total	1232	2.8

Sampling weights are needed to correct for imperfections in the sample that might lead to bias and other departures between the sample and the reference population. Therefore, to compensate for unequal probabilities of selection due to sample design, analysis should be carried out after applying probability weights. Probability weights are simply the ratio of population proportions to the sample proportion. These weights are computed at provincial level and entire statistical analysis is performed on the adjusted sample. Table A3.3 provides information regarding weighted and un-weighted sample.

Table A3.3
Un-weighted and Weighted Sample

Province	Un-Weighted Count [Sample Design]	Weighted Count [Corrected Sample]
Punjab	560	702
Sindh	224	296
Khyber Pakhtunkhwa	224	173
Balochistan	224	61
Pakistan	1232	1232

Structured questionnaires (male and female) were administered to head as well as spouse of the selected sample households. The modules covered in the survey include: demography, employment, education, housing quality, housing services, income, expenditure patterns, asset ownership, food consumption, women empowerment, land ownership, land tenure status, crop output, livestock, mechanisation, time use patterns etc.

The survey was administered with the help of local enumerators during the year 2011. SPDC staff supervised the survey and provided in-depth training (office as well as field) to the designated local staff before starting the field survey.

4

Women Empowerment Variables

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1.   ECONOMIC ASPECTS   **[Score: Yes =1, No =0]**

INDICATORS:

Do you take decisions on the aspects of purchase, construction, modification or repair of house?

Do your husband discuss with you when decision on construction/modification/repair of house is made

Do you take decisions on the purchase or sale of livestock?

Did your husband discuss with you before sale or purchase of livestock?

Do you purchase your dresses for the family?

Do you purchase the utensils for your family?

Do you purchase gold and jewellery for your family?

Do you take decisions on borrowing money?

Do your husband discuss with you on the issues of borrowing money?

Do you spend money you have borrowed?

Do you repay the money you have borrowed?

Do you take decisions on transactions involving household Equipments?

Do you have any debt in your name?

Do your husband discuss with you when he has made the debt?

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2.   INCOME   **[Score: Yes =1, No =0]**

INDICATORS:

Do you have your own income?

Do you spend it for the family yourselves?

Do you need the permission of your husband to spend your income?

Do you get any part of your family income or husband's income to your hands regularly?

Do your husband discuss with you when he spends income for the family or his own requirements?

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3.   ASSETS   **[Score: Yes =1, No =0]**

INDICATORS:

Do you possess any household asset? [Record all assets owned by spouse]

Do you have cash savings in your own name?

Do you operate Bank account in your name?

Do you need permission from your husband to sell, pledge, exchange any of the assets?

Do you have purchased land in your own name?

Is the house you stay registered in your name?

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4. EDUCATION & HEALTH	[Score: Yes =1, No =0]

Do you take decisions on the issues of your children's education?

Does your husband consult with you when he takes decision on the education of your children?

Do you think you can decide on how many children you can have?

Do you think you can decide on the spacing between children?

Do you think that you can decide on the treatment of your illness or your family member's illness?

Do you think you can decide on the method of treatment for your family members?

Do you think you can decide on the type of contraceptive to be used?

Do your husband discuss with you on the issues of health aspects of children?

Do you have any choice of food prepared and served in your home?

Are you able to take care of the nutritional requirements of yourself, family and children?

5. SOCIAL AND POLITICALASPECTS	[Score: Yes =1, No =0]

Are you free to go out and visit your friends and relatives without permission?

Do you have the choice of the dresses you wear?

Does your husband impose his religious beliefs on you and make you accept them?

Do you have any association with political parties?

Do you participate in voting and other democratic procedure?

Does your husband impose her political ideas on you and make you accept them?

Do you participate in the meetings of NGO's programs (other social events) in your locality?

Does your husband prevent you from participating in such programs?

Do you take decisions on the marriage of your son/daughter?

Does your husband discuss with you on the issues of the marriage of your son/daughter/close relative?

5

Methodological Framework

The conventional methods of inquiry include scientific, positivist, experimental and quantitative methods. These methods can only verify, accept or reject the hypothesis of the inquiry. On the other hand, an alternative method of inquiry that includes the naturalistic and qualitative approaches can also address the grounds of knowledge (ontological) and ways of knowledge production (epistemological) issues of the inquiry in a humanistic manner (Guba & Lincoln, 1988). The humanistic method of inquiry describes the phenomenon holistically with greater interaction between the researcher and the paradigm to be researched. The outcomes of the inquiry are essentially value-bound because it is influenced by the researcher, the paradigm, the theory involved and contextual values (Guba & Lincoln, 1988). The research uses a combination of methods in order to estimate the overall well-being of the affected men and women groups during the three stages of the project defined above both at household and individual level.

The methodology of research follows the normative naturalistic model that includes the choice of sampling procedure, un-structured interviews, survey of displaced people in the resettlement area, data analysis, and application of the IRR model to measure the well-being of affectees. Thus a combination of both quantitative and qualitative methods of inquiry has been used.

The study has been divided in four phases - each with its specific methodological procedure. In phase-I, un-structured interviews with government functionaries directly involved in planning, designing, implementation and resettlement of affectees were carried out to develop an understanding of the rationale and need for the project.

This was followed by focus group discussions with affected communities and interviews with NGOs and CBOs involved in the advocacy and campaign against eviction of people. The purpose was to understand their views on the LEW project and involuntary resettlement.

In phase-III, household surveys in the three relocation sites of Hawks Bay, Taiser Town and Baldia Town were carried out to assess the living conditions of affectees after displacement.

In the final phase, the information collected through household surveys and stakeholders' interviews was synthesized and analyzed to determine the extent of deprivation or improvement in the livelihood opportunities, living standards and well-being at household and individual levels.

Interviews with Government Functionaries

The interviews have helped in bringing forward the views of the government functionaries on the issue of resettlement and rehabilitation of affectees. The limitations and constraints confronted by them during the resettlement process were also extensively discussed. The City District Government Karachi (CDGK), NHA and LERP were approached for interviews. No interviews were conducted at the provincial government level since they were not involved in the planning and implementation of LEW project.

Focus Group Discussions with Affected Communities and Interviews with NGOs

One important aspect of the LEW in general and involuntary resettlement in particular is the different perceptions that exist at the governmental level and among the people. The government considered the LEW and resettlement of people an important milestone in terms of achieving higher living standards, better living environment and property rights. On the other hand, affected communities and civil society organizations such as NGOs, media representatives, professional planners and advocacy groups viewed the LEW and involuntary resettlement a violation of basic human rights. To understand the perspective of affected communities and civil society groups, three focus group discussions (FDGs) in each relocation site were conducted. A very small portion of the LEW is not constructed yet due to court cases. Unstructured interviews with people still living in the right-of-way of the project and not yet evicted were also conducted. Similarly, views of NGOs representatives were important for the analysis of 'claims' made by the government and also to bring forward the opinion of the affected people.

Application of the IRR Model on Primary Data

To measure the well-being of affected communities at household and individual level, Cernea's (1997) Impoverishment, Risk and Reconstruction (IRR) model was applied. The IRR model analyzes the gender aspect of displacement by assessing impoverishment risks through various aspects of livelihoods such as landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources, and community disarticulation. The model provides a framework to understand the existing inter-linkages and their mutual influence on situations that may lead to impoverishment or livelihood reconstruction. In addition, the model suggests risk reversal strategies as a prerequisite for the reconstruction and improvement of the livelihoods of those displaced by assigning a central role to institutions responsible for the project. The model has policy implications and suggests controlling general socio-economic risks confronted by the displaced people through integrated strategies and adequate financial resources. The model negates a top to bottom approach for reconstruction and argues that the desired outcomes require a participatory approach with convergence of actions by both policy makers and the displaced people. The household survey was the primary data collection instrument for the application of IRR model.

Household survey in resettlement sites

There were 46 community groups living on both embankments of Lyari River and were displaced and resettled in the following three sites: Hawks Bay, Baldia Town and Taiser Town. The household survey was conducted in all three resettlement sites.

Questionnaire for household survey

A survey questionnaire was developed, which included screening section, household profile and individual profile. Screening of respondents was the first step of the household survey. The discussions held with the NGOs and government functionaries revealed that a significant number of households in the three resettlement sites were those who were not affected by the LEW. Displaced people either rented out or sold the properties at substantially lower market prices (though the plots in the three relocation sites had non-transferable leases). The screening section also selected the household and survey respondent based on two major qualifications. First, the household and respondent should be an affectee of the LEW, in the three time periods, and the household moved to the new site within six months of displacement. Second, the respondent should either be an allottee or the person who at the time of survey was 25 years or older.

To analyze gender dimensions of overall well-being, it was imperative to collect data separately for men and women at three different stages. The period before displacement was designated in the questionnaire as 'at the time of displacement' (ATD) while after displacement (the period after six months of displacement) was designated as 'at the time of resettlement' (ATR) and the current status was designated as 'at present' (AP). Information about household size, education, employment, income, unemployment, loss of income due to displacement, household expenditures, debt and assets, structure of house and provision of basic services were collected for the three different time periods by gender in the section on household profile.

In the section on individual profile, the data collected included age, marital status, education qualification, income, nature of activity, occupation, employment, level of socialization, perceptions about community health and empowerment and decision-making. In addition, in order to analyze the eviction and resettlement process, a section dealing with the eviction process, compensation payment and government behavior/attitude was included in the questionnaire.

Sampling procedure and sample size

From the secondary data provided by the LERP, the total number of households was obtained and the total sample size of 500 households was divided by gender in the three resettlement sites. For a comparative analysis, the total sample size of 500 households was divided equally between female and male respondents. However, the total sample size increased finally to 508 households with 252 male respondents and 256 female respondents.

The sampling procedure was based on the purposive sampling method since the target population was only the LEW affectees. Later, the sample was stratified to divide the sample frame into one or more strata. The primary sampling unit (PSU) of the household survey was the the number of households in different sectors of the resettlement sites. For the study, the total sample size by gender by resettlement sites is given in Table A5.1.

Table A5.1
Summary of Sample Size

| Name of Settlement | Gender of Respondent | | Total |
	Male	Female	
Hawks Bay	126	124	250
	50.0	48.4	49.2
Taiser Town	99	105	204
	39.3	41.0	40.2
Baldia Town	27	27	54
	10.7	10.5	10.6
Total	252	256	508
	100.0	**100.0**	**100.0**

Source: SPDC estimates

The allotment data provided by the LERP had not been updated because of on-going allotment in Baldia Town. However, by the end of March last year, the total number of allotments at the three resettlement areas was 27,302 in which 5,557 allotments were made in Hawks Bay, 19,306 in Taiser Town and 2,439 in Baldia Town.

Logically the share of Taiser Town in the total sample size should be greater than that of Hawks Bay since the number of allotments in the former was the highest. The shares were, however, calculated according to the year of resettlement. In Hawks Bay, resettlement started in 2002 while in Taiser Town it started in 2004. Resettlement in Baldia Town was the most recent in 2009. The share of male and female respondents in the total sample by resettlement was approximately equal.

Case studies
In depth interviews with female affectees were conducted in three resettlement sites for six case studies. The ethnography method of qualitative research was used to document the possible advantages and disadvantages of resettlement in Hawks Bay, Taiser Town and Baldia Town. Sample selection was done through purposive sampling by identifying females with diverse ethno-cultural, education, socio-economic and professional background.

Methodological Triangulation Technique
Triangulation is often used to verify the results obtained from different methods for a research question. It not only enhances the confidence on the research findings but also provides additional methods to verify the results. Methodological triangulation refers to the usage of more than one method in data collection, such as participant observation, interviews with key informants, data from secondary sources and survey questionnaire.
Four types of data collection methods were used to analyze the gender dimensions of involuntary resettlement at household and individual level. Stakeholders' interviews were conducted by applying the qualitative research technique of an unstructured interview guide. Household survey of affected people was conducted through a questionnaire that not only helped in quantifying the extent of deprivation and advantages, but also provided qualitative information about the extent of satisfaction and dissatisfaction of respondents.

FDGs with the affected communities highlighted the qualitative and quantitative aspects of change in the livelihoods. Individual case studies of females based on the ethnographic method of qualitative research featured the improvement or deterioration in the overall well-being after displacement.

The methodological triangulation technique was used for further validation and verification of the data gathered from different quantitative and qualitative research methods. The quantitative data was validated with the measurement of overall well-being in all the three different stages (ATD, ATR and AP). Qualitative data was also analyzed to verify the key findings of the other methods such as household survey findings, interviews with key informants, participant observations and focus group discussions.

Annexure

6 — List of Laws Relating to Gender Aspects of Labour and Protection of Women

1. The Constitution of Islamic Republic of Pakistan, 1973
2. The Mines Act, 1923
3. The Workmen's Compensation Act, 1923
4. The Trade Unions Act, 1926
5. The Factories Act, 1934
6. The Payment of Wages Act, 1936
7. Eighteenth Constitutional Amendment Act, 2010
8. Discrimination (Employment and Occupation) Convention, 1958 (No.111)
9. Equal Remuneration Convention, 1951 (No.100)
10. Night Work Convention, 1948 (No.89)
11. Underground Work Convention, 1935 (No.45)
12. Workers with Family Responsibility Convention, 1981 (156)
13. Maternity Protection Convention, 2000 (C183)
14. The West Pakistan Industrial and Commercial Employment (Standing Orders) Ordinance, 1968
15. The West Pakistan Shops and Establishments Ordinance, 1969
16. The Industrial Relations Act, 2012
17. Khyber Pakhtunkhwa Industrial Relations Act, 2010
18. Khyber Pakhtunkhwa Payment of Wages Act, 2013
19. Khyber Pakhtunkhwa Minimum Wages Act, 2013
20. Khyber Pakhtunkhwa Factories Act, 2013
21. Khyber Pakhtunkhwa Maternity Benefits Act, 2013
22. Khyber Pakhtunkhwa Workers Compensation Act, 2013
23. The Sindh Industrial Relations Act, 2013

24. Balochistan Industrial Relations Act, 2010

25. The Export Processing Zones Authority Ordinance, 1980

26. The Provincial Employees' Social Security Ordinance 1965

27. The Employees' Old Age Benefit Act, 1976

28. The West Pakistan Maternity Benefit Ordinance, 1958

29. The Mines Maternity Benefits Act, 1941

30. Prevention of Anti-Women Practices (Criminal Law Amendment) Act, 2011

31. Qanun-e-Shahadat Order, 1984

32. Hudood Ordinance consists of five laws (i) offence against property Ordinance, 1979 (ii) Offence of Zina Ordinance, 1979 (iii) Offence of Qazf (false accusation) (iv) Prohibition Ordinance (1979), and (v) Execution of Punishment of Whipping Ordinance, 1979. Zine and Qazf ordinances. Combined they are called Hudood Ordinance, 1979.

33. Offence of Zina (Enforcement of Huddod) Ordinance VII of 1979

34. Offence of Qazf (Enforcement of Hadd) Ordinance VIII of 1979

35. Qisas and Diyat Ordinance, 1990

36. The Muslim Family Laws Ordinance, 1961

37. The West Pakistan Family Courts Act, 1964

38. Amending Ordinance LV of 2002

39. Dowry and Bridal Gifts (Restriction) Act, 1976

40. The Law of Evidence, 1872

41. Criminal Law (Amendment) Act, 2004

42. Protection of Women (Criminal Laws Amendment) Act, 2006

43. Domestic Violence (Prevention and Protection) Act, 2009

44. Domestic Violence (Prevention and Protection) Bill, 2012

45. Criminal Law (Amendment) Act, 2010

46. Protection Against Harassment of Women at the Workplace Act, 2010

47. Prevention of Anti-Women Practices (Criminal Law Amendment) Act, 2011

48. The Acid Control and Acid Crime Prevention Act, 2010

49. The Women in Distress and Detention Fund (Amendment) Act, 2011

Women in Pakistan gained the right to vote at independence, but continue to suffer legally, politically, socially and even culturally – and from policy neglect. The women's movement in Pakistan has fought hard and there are many victories to its credit: from legislation of family laws in the 1960s to a host of pro-women laws during 2008-12; although the black laws of the 1980s remain on the statute book. Women also have substantial representation in the legislatures and are found in key positions in government and in various professions.

However, there are a range of issues affecting women in everyday life that has received inadequate consideration. For example, women have the need for mobility, as do men – for work, shopping, health care, socializing, entertainment, etc. However, the almost total neglect of public transport has deprived women of the right to free movement. Further, women are now joining the work force in increasing numbers, but face constraints in accepting work outside their place of residence due to the virtual absence of women's hostels in any of the cities. And so on.

The women's movement in Pakistan has failed to take up these and similar matters of concern to them. And one reason for lack of attention, herewith, can be absence of research and analysis of such issues. SPDC is a policy research organization, with the objective of generating research on important questions of social policy and practice and this book is a small contribution to spotlighting public policy issues facing women.