

**SOCIO-PSYCHOLOGICAL EFFECTS OF INTERNAL
DISPLACEMENT ON FLOOD AFFECTEES IN
KYBER PUKHTOONKHWA**



Researcher

Bilal Shaukat

(37-FSS/MSSOC/F09)

Supervisor

Dr. Saif Abbasi

Associate Professor



**Department of Sociology
Faculty of Social Sciences
International Islamic University, Islamabad**

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Submitted in partial fulfillment of the requirements for the degree of MS in Sociology at the
faculty of Social Sciences, International Islamic University, Islamabad.

**Department of Sociology
Faculty of Social Sciences
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FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF SOCIOLOGY

It is certified that thesis submitted by Mr. Bilal Shaukat Reg. No.37-FSS/MSSOC/F09 titled "*Socio Psychological Effects of Internal Displacement on Flood Affectees in Khyber Pukhtunkhawa*" has been evaluated by the following viva voce committee and found that thesis has sufficient material and meets the prescribed standard for the award of Degree of MS in the discipline of Sociology.

Viva Voce Committee

Supervisor:

Dr. Saif Abbasi



External Examiner:

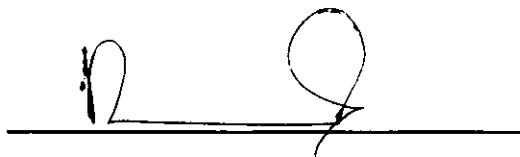
Dr. Rashid Khan

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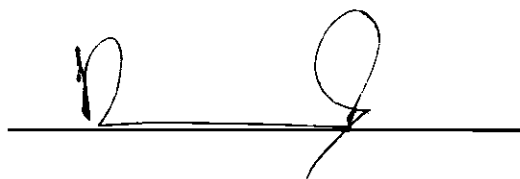
Internal Examiner:

Mr. Akhlaq Ahmad



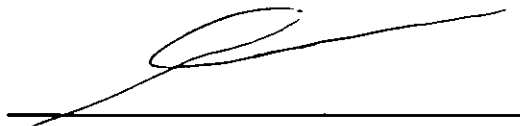
Head Department of Sociology:

Mr. Akhlaq Ahmad



Dean Faculty of Social Sciences:

Professor Dr. Nabi Bux Jumani



ABSTRACT

Disasters bring disruptions in the normal social life, create chaos, destroy social structure and contribute to replace social order. The social fabric of Pakistani society was immensely affected by 2010 flood, resulting multiple miseries for people living in Kyber PukhtoonKhwa. It was a catastrophe that caused 1.4 million people to experience internal displacement from 3-12 months passing a miserable life in the Province.

A study was conducted in two Districts namely Swat and Charsadda of Kyber PukhtoonKhwa province to explore the social and psychological effects of internal displacement on affectees of July 2010 flood. A random sample of 396 respondents was selected from both the districts. A pre-designed interview schedule was used to collect the data through field survey.

The study found this natural disaster caused socioeconomic problems such as severely damaged house, educational and health institutions, destroyed agricultural land, standing crops, tourism, forests, education of children and health of the people. Psychological problems like stress, anxiety and depression were common in affectees after the flood. The study recommended that Social rehabilitation of internally displaced persons need to be ensured through appropriate package of financial assistance and non interest bearing loans. Moreover Government and nongovernment organizations may arrange training for mitigating any such situation in future. Psychological counseling for the internally displaced flood affectees will provide relief to them.

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LIST OF ABBREVIATIONS

IDPs	Internally Displaced Persons
NGO	Non Governmental Organization
GANGO	Government and Non Governmental Organization
APA	American Psychological Association
IFRC	International Federation of Red Cross and Red Crescent Societies
IDMC	Internal Displacement Monitoring Centre
ICRC	International Committee of the Red Cross
DF	Degree of Freedom
NDMA	National Disaster Management Authority
OCHA	Organisation for Coordination of Humanitarian Affairs
UNHCR	United Nations Higher Commission for Refugee
UNEP	United Nations Environment Programme
WCRWC	Women's Commission for Refugee Women and Children
WFP	World Food Programme
WTO	World Tourism Organization

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CHAPTER ONE

INTRODUCTION

Human history witnessed risks and disasters from the very beginning; however, these disasters were mainly natural in the past and little has been done by human actions. In the course of time society has shifted from its rudimentary form to the current state of advancement due to the rapid progress in the field of science and technology, where man attempted to control the environment and to minimize his dependence on it as much as possible. Although in the modern and post modern society, environment and nature has less impact on the human development due to large scale production through industrialization. Nevertheless nature has retained its great influence over the world and its inhabitants in one form or the other, which ultimately affects human beings and the society and making man a baby-toy in the hand of nature.

Natural disasters reduce growth rate in the country by wiping out human and non human capital and switch resources towards reconstruction and relief activity for affected people. Natural disasters also slow down social welfare and development of individual as it destroys household asset, as well as shelter, which compelling victims' families to live in temporary shelters. (Johnson, 2004).

Natural and man-made disasters render great damages to the entire world from the beginning of human history. Natural disasters include flood, volcano, draught, cyclone, earth quack, and tsunami etc. while man-made disasters are; wars, accidents, and even environmental degradation in the form of air, water and noise pollution. Nevertheless both types of disaster leave its deep impact on human society but natural disaster has an edge over the man-made disasters in destruction on the planet.

The failure of general public to cope with the hazard taken place, it is a vulnerability to hazards (Wisner et al, 2004). The natural disasters situation is due to the occurrence of natural hazards like flood, earthquakes, cyclones, volcano eruption, etc. that cause massive damage both to human beings and materials. These disasters affect human beings both in group as well as individually. Abrupt changes due to global warming or as a result of other human actions aimed to harm opponents, these lead to one or other form of disasters. "Changing weather patterns may be causing more rain and a greater risk of floods in some areas." (Woods and woods, 2007). The first flood recorded in the history is "the Noah's Flood", which is cited in almost all the divine scriptures with slight variations.

Precipitation is one type of flood that includes rain, snow, hail, etc and has both instant and longer-term impacts. Heavy rainfall causes flash flooding or over flow of water from rivers. Melting of snow and ice on the hills may also cause floods in the down area. Hail cause sudden injury to a number of people and block drainage systems which causes flood. Increase in the overall temperature of the world due to Global warming has raised the level of water in oceans, which in turn increases rainstorm and monsoon (Diaz, 2004)

According to Haines & Patz (2004) rise in the level of water both fresh and sea water, may cause immediate or gradual flood in the area, sudden rise of ocean water basis for tsunamis, surges, or infringe the sea defenses. These may occur due to global warming, ice melting or thermal expansion. One of the causes of flood is the release of water from water stores like dams, due to failure of holding on the walls or structure or landslide by displacement of water to be stored. Favaro et al (2004) states the example of Vajont Dam in 1963 in which mud, rocks, earth and trees uprooted in the lake causing the overflow of water and nearby villages went under water.

Failure of drainage system is the cause of floods by tumbling absorption of water occurs when natural landscapes are substitute by non permeable infrastructure. Impaired drainage in urban area and poorly planned and insufficient drainage system are duly the cause of flood in the cities, (Poole & Hogan, 2007)

Johnson (2004) contends that natural disasters like floods, earthquakes, droughts, epidemics and wind storms affect humans immediately as well as later on. Among all natural disaster, the most harmful one is Hydro meteorological, where number of people died and displaced from their homes. Flood and other natural disasters are increasing in the world very rapidly due to changes in climate and rise in temperature.

Natural disasters such as tsunamis, earthquakes and flood are the most frequently occurring disasters, which severely affects human population directly by facing the disaster and indirectly through contact with the affected people. According to Du, et al, (2010) 38.7% of people were affected from flood among whom 6.2%, died.

Khan et al, (2010) mentioned in their report that floods is a natural disaster and a part of the bio physical processes of the earth but sometime this process become overwhelming and effect human both directly and indirectly. This process gets shape of worse disaster when humans try to alter the natural environment abruptly like clearing of vegetation from earth in the form of deforestation, interference in natural drainage system, and lasting habitation of wetland.

Evidence suggests that world's 75% population is confronted with the natural disasters at least once in between 1990 and 2000 and 184 people die per day in the upshot of the disasters. In the last two decades more than 1.5 million people die due to

natural disaster. The death rate due to natural disaster is very much high in the countries where they have low Human Development Index (Judith & Julius, 2008).

A century long study has been conducted on Natural disaster from 1900 to 2002, which shows the number and typology of natural disasters, as shown in table 1.1, among which the most frequently occur natural disasters in the world are wind storm and flood.

Table # 1.1: Type of disasters and their frequency from 1900 to 2002

Disaster type	Number	Percentage	Disaster type	Number	Percentage
Flood	2 390	27.11	Extreme temperatures	263	2.98
Earthquake	900	10.21	Insect infestation	72	0.82
Epidemic	854	9.69	Slide	449	5.09
Wave/surge	42	0.47	Volcano	169	1.92
Wild fire	270	3.06	Famine	77	0.87
Drought	782	8.87	Wind storm	2 547	28.91
Total				8815	100.00

Source: EM-DAT (2004)

Number of damages and deaths are increasing with the passage of time, due to natural disasters, nevertheless the space and time affect number of deaths. In the entire world 250,000 people die from natural disaster in which 140,000 people die in poor nation, and even developed nation like Japan, Italy, USA and USSR are equal hit from natural disasters. (Alexander & Kluwer, 1999)

Natural disasters affected human life in all aspect including material form as well as non-material form. In group it disturbed the overall social structure and functions of the society and in individual capacity, traumatized the affected people and caused a number of social, psychological and economic problems. Social fibers of

the society become weak from displacement and migration during and after flood. These in turn causes great psychological problems to the victims. Economic problems are generally solved quickly but the socio-psychological problems take longer time for proper and durable rehabilitation. In most of situation this is a neglected aspect of rehabilitation in the wake of disasters and victims along with their families keep on suffering for indefinite period of time.

Another evidence highlight that across the globe more than 2/3 of the entire population has been directly and indirectly affected from natural disasters and particularly from flood, in the form of internal displacement, health related problems, and financial loss in the field of agriculture. Nevertheless death rate due to flood is very low as 15 percent of deaths are due to flood disasters in the world (IFRC, 2001).

Water is one of the basic necessities for the human survival on the earth but excess of it also cause human deaths. When water over flow the banks of the rivers and shores of the oceans, it take the shape of flood and becomes deadly weapon for humans and all other creatures as well as devastating for infrastructure Woods & Woods (2007). Floods have resulted in dreadful disasters throughout the history causing great death toll comparing other natural disasters and so is on the top of the list in weather-related killers for human; however, it is the most common natural disaster after the fire Kalz, 2002 & Allaby (2003).

ABARES (2011) special report on flood occurred in Australia in 2011 states that high rain fall became the major factor of high level of flood in that area. Flood caused in the form of flash flood or can caused floodwaters engulf the area for long time. Urban areas are near to rivers and render more damages instead of rural communities. In urban area, flood had damaged infrastructure in general and transport

in particular, which disrupt the flow of commodities to market. The social disturbances caused by floods seriously affect the quality of life of individuals and impact on the fabric of affected communities (Gordon, 2004). Flood also severely affects physical and mental health of victims and may cause psychological problems such as anxiety, stress and depression (NRC, 2009).

Brookings-Bern Project on Internal Displacement (2008) highlighted people displaced by the disaster. Internally displaced people means those individual or group of people who have been obliged or forced to flee or depart from their homes or place of regular residence as a result of any disaster or emergency in order to avoid the bad impacts of natural disasters, Internally displaced persons shift within their own country and do not cross an internationally recognized border. Internal displacement is endorsed to a diversity of causes; it is simplistic to classify a comprehensive typology of IDPs. Main types of internal displacement are; mainly is the result of the history, imperialism and decolonization. In modern times, two dominant types of internal displacement are: displacement induced by disasters such as floods, epidemic diseases, emergencies and displacement induced by development such as landlessness, joblessness, homelessness, food security, increase morbidity and mortality, social integration and violation of law. Oucho (2005) studied on Southern African Community (SADC) region has explored that some sudden disaster causes internal displacement for the stable population. In February 2000, heavy rainfall caused floods of high level which hit the area, and large numbers of Mozambicans were internally displaced for food aid, medical supplies and other financial and non financial assistance. Norwegian Refugee Council (2009) report shows that in any case 36 million people were internally displaced by natural disasters in 2008, and over 20 million people were internally displaced by hydro and meteorological related disasters.

Climatic change is increasing the frequency and intensity of natural disasters, and the numbers of natural hazard like flood, droughts and storms, reported in every part of the world and number of victims increase. Natural disasters destroyed livelihoods and homes, precious lives, and forced internal displacement from their homes. (Feinstein International Centre, 2008).

In the second quarter of 2010, Pakistan experienced a worst disaster in the form of flood in which half of the country came underwater and miserable state of affairs prevailed across the country. People in individual capacity as well as in groups both nationally and internationally promptly responded to pull the affectees out of the situation and rehabilitate them properly. (Moser, 1994) described that help was mostly material and people were provided with materials of daily use; however, the non-material and intangible effects of the floods are given less attention, particularly in the materialistic age and areas.

The extent of damages caused by July 2010 flood in Pakistan can be gauged from the level of deaths and destruction reported by Pakistan's National Disaster Management Authority (NDMA) shown in the following table 1.2

Table # 1.2: Facts about the effects of Flood in Pakistan 2010

	Balochistan	KPK	Punjab	Sindh	AJ&K	GB	G. Total
Deaths	48	1156	110	234	71	183	1802
Injured	98	1198	350	1201	87	60	2994
Houses Damaged	75,261	200,799	509,814	1,114,629	7,106	2,830	1,910,439

Source: National Disaster Management Authority (NDMA)

Khan, et al (2010) reported on July and August 2010 flood that it damaged the property and endangered human lives throughout the country including Khyber Pakhtunkhwa, Sindh, Gilgit Baltistan, Balochistan, Punjab and Azad Jammu and Kashmir. In Khyber Pakhtunkhwa particularly Swat, Charsadda, Chitral, Dir, Kohistan, Nowshera, Bannu and Dera Ismail Khan Districts were severely affected by the flood. Flood of July 2010 damaged wide range of infrastructure such as tourist hotels, tourist spots, agriculture products, livestock, forests, and wildlife.

The adverse effects of floods were not restricted only to disadvantaged individuals rather extended to destroy the economies and industries of the affected nation. Flood in the urban areas also cause severe human casualties due to immense population in the cities. For example, in Japan's about 50% population and 75% assets are located in the urban areas which are generally affected by flood. However, the human casualties are rare due to an effective early warning system (Szollosi-Nagy & Zevenbergen, 2005).

Gregorio, (2012) explains another aspect of the natural disaster and provides that during the turmoil of natural hazards, children end their educational activities due to the loss, either of their parents or both of them and other family members. They also end up their schooling due to cut of the social support extended to them by their parents or family members.

The largest disaster of any kind in Pakistan throughout its entire history is the July 2010 flood, and according to the United Nation Secretary General Ban Ki Moon the 2010 flood is the single largest disaster in history of the United Nation, and the intensity of flood was so high that UN would require much time to normalize the situation in the flood affected areas, (PBI&T 2010).

1.1 STATEMENT OF THE PROBLEM

Almost people concentrated on the economic rehabilitation of the flood affected people and reconstruction of flood hit areas. However, these affected people have faced a number of social and psychological problems as well, in the wake of flood, which greatly disturbed their lives and compelled them to live abnormal lives. This aspect of natural disaster received attention of the researchers. In the view of importance of neglected dimension of displacement the study was focused on the social and psychological problems of the people of flood affected areas in Khyber Pakhtunkhwa during 2010 flood.

1.2 SIGNIFICANCE OF THE STUDY

The study would focus on various social and psychological problems caused by natural calamities and disasters to the victim families directly and indirectly. Government generally caters for material rehabilitation of the affected people and ignores the non-material aspects such as social and psychological. The non-material problems are more dangerous in comparison with the material one. The study would draw attention of the governmental authorities and policy makers to chalk out policies in handling social and psychological problems among flood affectees such as overreaction in normal situation, taking no interest in family routine work, remain sad and gloomy, and feel anxiety in rainy season. The study would be highly significant for all quarters of the society ranging from government, policy makers, researchers, academicians, and public and private sector. The outcome of the study would enable the relief agencies to launch better efforts for pulling out the victims from traumatic situation

1.3 OBJECTIVES OF THE STUDY

Objectives of the study were as under:

- To evaluate the socio-economic characteristics of 2010 flood affectees.
- To identify the socio- psychological problems faced by flood affectees.
- To study the level of relief and rehabilitation efforts extended by the Government and Non Government Organizations to the flood victims.
- To suggest appropriate measures to minimize socio-psychological sufferings of the victims.

1.4 HYPOTHESIS OF THE STUDY

Hypothesis of the study were:

1. There is an association between house damages and psychological problems faced by respondents during the flood.
 - 1.1 Higher the level of damages caused to shelter higher will be psychological problems faced by the respondents.
 - 1.2 Higher level of house damages, higher will be sadness of the respondent
 - 1.3 Higher level property damages from flood higher will be less interest in house hold activities.
 - 1.4 Greater the extent of damages to house of the respondent, higher will be the level of anxiety in rainy season.
2. There is association between river vicinity and the level of damages during the flood
 - 2.1 Lessen the distance of river higher will be the property damage.

- 2.2 Lessen the distance of residence from river higher will be the damages of home articles.
- 3. There is an association between the structure of house and damages in home during flood.
 - 3.1 Better house (in the form of construction) lower will be the amount of
 - 3.2 damages
- 4. There is an association between family monthly income and duration of displacement in the refugee camp
 - 4.1 Higher the level of income, lower will be duration of displacement in the refugee camp

CHAPTER TWO

LITERATURE REVIEW

Floods are accepted as unavoidable naturally catastrophic disaster. To Masoudian, (2009) they are exceedingly dreadful and serious, which cause short as well as long term human agony. However, the people, in the present time, are more concerned with the affects and impacts of various natural disasters on human lives. They are more concerned with "human vulnerability and an environment that can be further mismanaged or abused, have focused attention to the need for more integrated, anticipatory, and far-reaching water policies and strategies" (Vlachos, 1995, p.2).

International Committee on Large Dams (ICOLD) investigation provides that flood is one of the most frequently occurring natural hazards both in terms of casualties as well as socioeconomic sufferings (Masoudian, 2009).

The early warning system enables the vulnerable people to mitigate their economic losses as well as minimize the human injuries and losses of lives due to disaster such as floods. It also enables the individuals to materialize a plan of action to avert the harms of natural disasters (Grasso, n.d.).

The Bonn Protocol on Early Warning strongly underlined the availability of disaster EW capability, that transmit the warning to the individuals scared of being affected by the floods, so that they can be saved (Chaudhry, 2006). However, the early warning should not be limited to predictions as they are not effective until they are interpreted in terms of warning and providing an effective action plan so that the people could comprehend the situation and timely utilize the information (Glantz, 2003).

Prediction as the beginning point of the EW system provides input for the rest of the process to be operated. Grasso, (n.d.) explains the operational aspect of EW

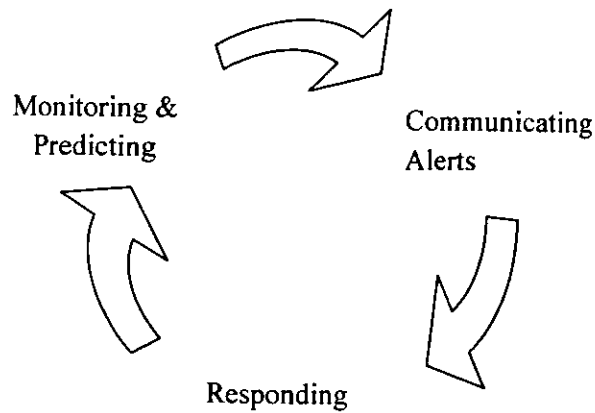


Figure 2.1: Early Warning System Operational Aspect

system in the figure 2.1.

Pakistan, has taken various steps for early warning to materialize the Bonn Protocol. Chaudhry (2006) provides that an early warning system for the flood has been developed, based on multiple inputs from Pakistan Meteorological Department, Water & Power Development Authority and Indus Water Commission. It provides a system of information collection, assembling, interpreting as well as timely dissemination to the lower order implementation units at district and tehsil level. The system is effective in normal situation of floods; however, there is no such system operating for early warning in case of flash floods. As the vulnerable communities are rarely warned in prior, therefore, it is highly required on the part of governmental organization to “introduce disaster coping mechanisms in such communities” (OCHA, 2006, p. 47).

Natural disasters seldom affect people equally and therefore, have different implications for different socioeconomic groups. The variation in the availability of facilities, sensitivity and exposure to risk factors mainly determined the implications of natural disasters. The disadvantaged quarters of the society suffer a lot in the case of natural disasters (Bacz, 2009). Floods are the most frequently happened natural disaster in the human history, which have enormous impacts on the human life (Tunstall et al, 2006). The implications of floods “on biota, including human populations” are there “since time immemorial” (Poiani, 2006, p.2).

The effects of floods, one can think of them, may not restrict only to wetting things but they include the rising of muddy water into fields, homes and everything. However, the inundation of sediment not only creates mess but damage certain sensitive machinery (Pipkin et al, 2011), therefore, the effects of floods can be classified into three broad categories such as primary effects, secondary effects and tertiary effects.

The primary effects encompass the casualties and property damage whereas the secondary effects of floods include contamination of water, malnutrition, diseases and the tertiary effects extend to economic (Masoudian, 2009). Such a situation affects more or less the entire human life and society. The human life is exposed to the impacts of flood that depend on the varying factors such as “the distribution and growth of settlements, changes in the economy and levels of poverty, and investment in flood control engineering and other aspects of risk reduction” (Few, 2006, p.2). The various impacts of floods are discussed here in the following lines.

The socio-economic fabric of human society is immensely affected by the natural disasters. It is universally accepted that the degree of disasters' vulnerability varies in the society. For instance, females may suffer more as compare to their respective male members. The female casualties are also high due to variety of reasons such as owing child-rearing responsibilities, restricted mobility, low literacy rate and little information (Briceno, 2001; Cannon, 2002 as cited in Ahern & Kovats, 2006) as well as biological and physiological difference, social norms and the competition due to shortage of resources when breakdown of social order occur in time of disaster (Neumayer & Plumper, 2007). However, male members of the society equally suffered at the hands of natural disasters such as floods while saving their relatives and belongings.

Human sufferings such as mortality, diseases and disability affect the economic status of the affected families due to diminished power to work. Besides, the families' belongings and assets including livestock, crops are adversely affected by the floods. The flood affected land and the remaining livestock are generally sold at nominal rates in order to meet the necessities of daily life of the affected families (Wisner et al, 2004). As every member of the affected community possesses some sort of tangible asset, which may include houses (may be poorly constructed with feeble items), crops, home-utensils, livestock, and above all the electronic appliances (del-Ninno et al 2001).

The sufferings of the flood affected people are not generally addressed in an effective and sincere manner and therefore, continue till very long. Wisner et al, (2004, p.192) contends that

Losing or being forced to sell land and other assets as a result of floods may shift people into poverty or worsen their existing poverty. The loss of

assets or ability to work, of land and animals, or suffering due to injury and illness, may still be affecting people when another flood arrives a year later, and possibly even for years afterwards.

In Pakistan, the 2010 flood has adversely affected the grown crops and livestock, which caused USD 2.8 billion of the crops and USD 450 million from the damage of livestock according to Pakistan's ministry of Food, Agriculture, and Livestock (Ali, 2010).

The adverse effects of floods are not restricted only to disadvantaged individuals rather extends to destroy the economies and industries of the affected nation. Floods in the urban areas also cause severe human casualties due to immense population in the cities. For example, Japan's 50% population and 75% assets are located in the urban areas which are generally affected by flood. However, the human casualties are rare due to an effective early warning system (Szollosi-Nagy & Zevenbergen, 2005).

The situation of flood provides for almost a devastating scenario for the individuals and it may be possible for general public, however, it may not be as adverse for everyone. The beneficiaries in the worst situation of the disaster such as floods enable them to acquire land or other valuable things at low prices from the affected disadvantaged individuals. On the other hand, people get benefits of the horrific situation by earning money from marketing food items and other necessities of daily life at a high price. Still some individuals may get advantage of the situation by having such services that are required in emergency such as boats etc. (Wisner et al, 2004).

The impact of flood should be understood in connection with the interruption and destruction of human livelihood as well as access to basic necessities of life. The

loss of farmers' land and livestock and fishermen's nets and boats affect them and cause a great socio-economic change in life. In their lives if the floods cause no hunger, then too disturbed the human life and have medium range implications on the lives of affected people (ibid).

Education is the most important social institution that is directly affected by the floods. During the floods, education of the affected children affected to a great extent due to loss of their books and other educational materials. They are also unable to attend their schools during the floods and after the fall of water for considerable time.

Gregorio, (2012) explains another aspect of the natural disaster and provide that during the turmoil of natural hazards, children end their educational activities due to the loss either of their parents or both of them and other family members. They also end up their schooling due to cutting off the social support extended to them by their parents or family members.

Besides the loss of materials, children are exposed to insecure environment as well. The News International (30/9/2011) reported Muhammad Ali, President of the Roshni Helpline saying thus:

The current situation should be taken as a serious concern because the major focus being given on the relief and immediate rehabilitation activities of the flood victims has compromised the security and safety of children. Since these children do not have any activity to keep them engaged, their vulnerability to security risks has multiplied manifold.

The education sector was also greatly affected by the placement of the displaced persons in the schools, which remained safe from the damage. Muhammad Ali says that "The furniture is being used as fuel for fire and other infrastructure of these schools has been completely damaged by these refugees, and there is no chance

that these schools could be used for education purpose without complete reconstruction,” (The News International, 30/9/2011).

The impacts of floods on health have been little addressed and hence very little data is available in this respect (Few et al, 2004; & Hajat et al, 2003). However, floods have both short and long term implication on human beings physical and mental health (Tunstall et al, 2006) and the extent of possible health impacts for a particular deluge event would be broader in nature (see table 2.1), which are both directly and indirectly

Table 2.1
Potential Health Effects of Flooding

Direct	Drowning Injuries (e.g. cuts, sprains, fractures, punctures, electric shock) Diarrheal disease Vector-borne and rodent-borne diseases (e.g. malaria, leptospirosis) Chemical contamination (e.g. of water, food) Respiratory infections Skin/Eye infections Mental Health
Indirect	Damage to health care infrastructure and loss of essential drugs Damage to water and sanitation infrastructure Damage to crops and/or disruption of food supplies Damage/destruction of property (e.g. lack of shelter may lead to increased exposure to disease vectors) Disruption of livelihood and income Population displacement

Source: (Ahern & Kovats, 2006, p.29)

linked with the floodwaters (Ahern & Kovats, 2006).

The impacts of floods on the health are deeper than the direct physical threat to human life due to floodwaters. The floodwaters carry wastes and other toxic materials which cause diseases by exposing human to toxins and pathogens that may affect mental health (Hales et al, 2003 as cited in Few, 2006).

The figure 2.2 shows the influence of floods on the human health. The authorities do their level best to avert the adverse effects of floods on health (Few, 2006).

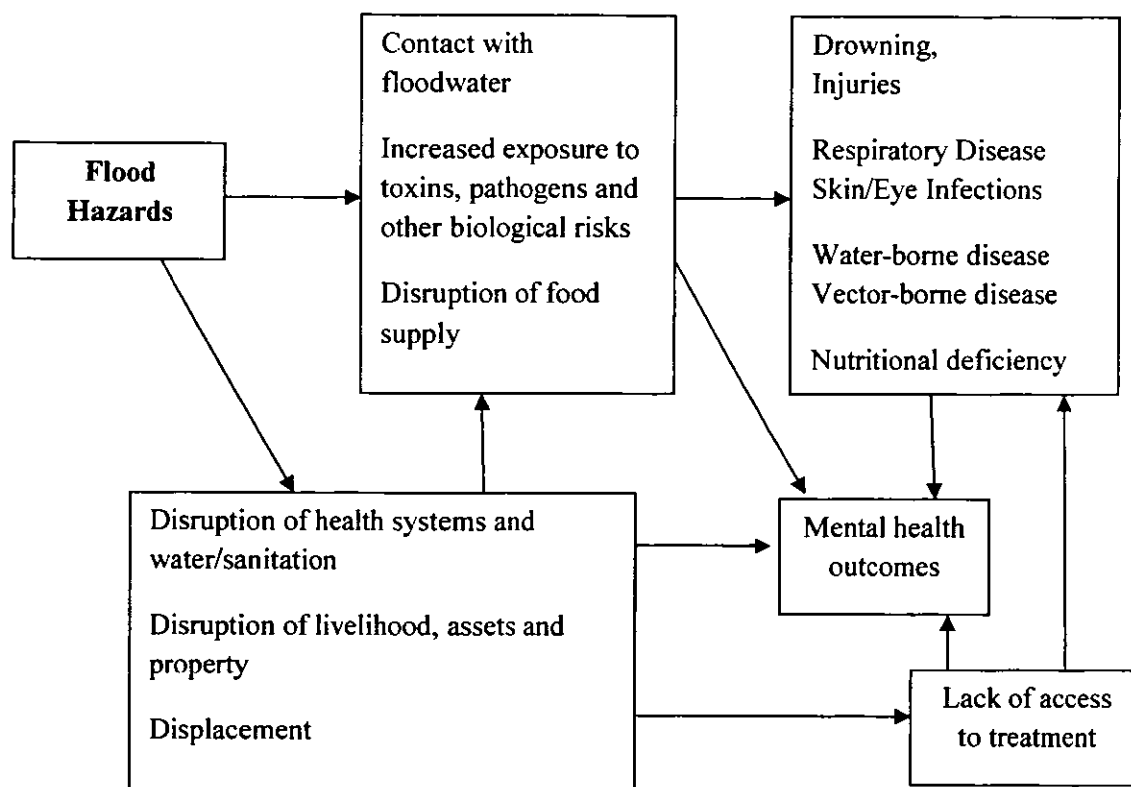


Fig. 2.2: How Flooding May Impact Upon Health

The degree of floods' influence on health issue depends upon a variety of factors that include the regularity of flood occurring, speed, velocity and depth of the floodwaters, and scale of the deluge. These factors also include the socio-economic status of the individuals, construction of their houses, existing health status as well as the availability of healthcare facilities, the mental preparedness of the individuals, effective system of early warning, and coping strategies. Table 2.2 explains the mechanism of how human health outcomes, which is affected by floodwaters. The

health outcomes may be occurred at three levels such as pre-onset, onset and post-onset of flood (Ahern & Kovats, 2006).

The contaminated drinking water and stagnation of water due to floods cause a number of diseases such as cholera, malaria, yellow fever, dysentery and respiratory diseases etc. (Watson et al 2007). The stagnation is usually caused by inadequate sewage system and excess of insoluble materials such as plastic bags etc. which was banned by Bangladeshi government in 2002 to avoid blocking of drainage system (Wisner et al, 2004). The survey conducted in the wake of 1998 floods in Bangladesh which resulted that average 31% of the affected were found ill, however, the ratio is as higher as 40% in the areas exposed to awful flooding (del Ninno et al, 2001).

The employment of the affected people suffered due to floods as the ill and injured are unable to work, affectively negatively family earnings due to loss labour, in the wake of a disaster such as floods etc. and recovery process thus get slow, whereas the people working on the land loss their job as the landowners have no need of

Table 2.2
Mechanisms through which humans may be affected by flooding

Health outcome	Flooding of house	Walking in or contact with floodwaters	Existence of flood nearby (but no direct contact with
Death from drowning and trauma	Yes	Yes	No
Injuries	Yes	Yes	No
Diarrhea	Yes	Yes	Possible (e.g. flooding of water treatment works)
Malaria	Generally unlikely	Generally unlikely	Yes
Leptospirosis	Rarely	Yes	Possible
Mental Health (e.g. depression and anxiety)	Yes	Possible	Possible (e.g. if evacuated but not flooded)

manpower for their fields after the floods (Wisner et al, 2004). In Bangladesh situation of no job and high prices results in severe hunger during the period following the flood of 1974 (Clay, 1985).

The flood affects people working on daily wages. The survey conducted in the wake of 1998 flood in Bangladesh showed the difference between the working days and earnings of the daily-wagers and dependent workers. del-Ninno et al (2001) states thus

The decline in employment during the floods was not very severe for dependent workers or those employed in cottage industries. For example, dependent workers' employment fell from 27 days per month in 1997 to 24 days per month in July through October 1998. By October – November 1998, they were again employed an average of 27 days per month. Day laborers were more severely affected; their employment fell sharply from 19 days per month in 1997 to only 11 days per month in July through October, 1998. By October-November 1998, employment had increased to average of 16 days per month, still 3 days per month less than the average for July through October 1997. Similarly, wage earnings also fell in the period of the floods and had not recovered to 1997 levels by October-November 1998. For dependent workers, average monthly wage earnings during July-October 1998 were 16.5 % below their average monthly earnings one year earlier. For day laborers, average monthly earnings in July-October 1998 were 46 % below those in the same months in 1997, and in October-November 1998 were still 18 below the 1997 levels. Female earnings were lower than male earnings in all labour categories, but the differences over the two periods were less pronounced than the variations in male monthly income. (p.50)

Kevin Rozario explains the role of natural disasters in shaping the United State of America in his work 'The Culture of Calamity'. Contending the above situation, Rozario (as cited in Lester, 2010) provides that disasters also bring benefits to the people of the area. The people get rapid employment and high earnings as to repair and rebuilt the devastated infrastructure of the affected area.

The socio-economic fabric of a society is immensely affected by the condition of infrastructure. The floods directly affect the infrastructure and create great hardships for the public. Flood damage the roads, disconnect the power supplies and disturb the supply lines of gas and similar other facilities to the general public who have already suffered at the hand of floods' devastating occurring.

Ali (2010) reports the National Disaster Management Agency (NDMA) provided that floods in 2010 in Pakistan have caused damage to 2,500 educational institutions, 175 health centers and 1,000 water supply installations. A similar report is included from National Highway Authority (NHA) estimating the loss in connection with road and bridges across the country as high as USD 70 million and disconnected the villages, towns and cities. The Pakistan Electric Power Company (PEPCO) is reportedly suffered USD 120 million due to 2010 floods in the country. The flood struck upon both Hydel and thermal generation units, which can cause the supply gap at 4052MW according to National Electric Power Regulatory Authority (NEPRA) estimates.

In urban areas, the physical services infrastructure consists of networks of connecting points that are helpful in the development of economy by transforming the raw materials into useful and final products. Flooding affects the whole of the network or some of its connecting points. Besides, the landline telephony that serves as viable and effective source of communication for both the business communities and general public, badly affected due to disconnection from the main exchange. The railways signal system is also adversely affected by the floodwaters. The real problem in this connection is their high value but slow replacement and repair rate (Green & Penning-Rowsell, 2007).

Tourism industry is growing both in volume as well as economic significance. The places that were in accessible a few years ago are now frequently visited by the tourists. Nonetheless, they are vulnerable due to climatic change. This will result in the rise of sea level on the island, for instance, the Maldives, which are popular tourist spots, become dangerous due to the rise of sea level and hence increase the occurrence of flood (Viner & Agnew, 1999).

Tourism industry is an important part of the world economy as it engages 625 million individuals and involves USD 445 million only in the year of 1998 according to World Tourism Organization (WTO, 1999). However, mostly tourism poses risky situation because of its magnificent as well as remote location (Murphy & Bayley 1989) that could be expose to the flooding due to water streams.

ERALP Report (2010) reported USAID FIRMS Project concludes that in the Swat area of Pakistan, hotel industry suffered a lot due to 2010 floods. The report estimated the loss to Rs.650 million, which has a major share from Kalam area. Such a loss constitutes 20-time greater than that caused by the earlier arm conflict in Malakand region.

Natural disasters have deep rooted psychological implications for the human health, which often neglected during the relief activities. Just after the occurrence of major natural disasters, e.g. floods, majority of the affected people goes through stress and strain, unpleasant memories, sleeplessness, nightmares, and mental restlessness. This situation gives birth to unjustified anger, quarrelling behaviour with others people, which continue for a long time afterwards, nevertheless, no visible link can be established between such a state of mind and disaster (UNSW, 2011).

Studies have deciphered psychological implications of natural hazards on different age groups. Elderly people were more vulnerable to develop PTSD syndromes and other psychological problems (Liu et al, 2006; Jia et al, 2010). The PTSD (Post Traumatic Stress Disorder) is an anxiety borne disorder developing in the wake of a major unfortunate disaster that cause trauma (American Psychiatric Association, 2000).

Likewise, the occurrence of flood gives rise to mental disorders like anxiety and depression (Hajat et al, 2003), which continues for months or years. So, the floods and other natural disasters played to be the multiple stressors (Penning-Rowsell & Tapsell, 2004). The study conducted in Lewes (Sussex) in the wake of 2000 floods, revealed that the adult flood affectees were exposed to psychological distress four-times higher than children and it explains the physical diseases both in adult and children (Reacher et al, 2004).

The stress and anxiety has adverse effects on the affectees health due to the supposed risk of repeating the incident (Hassan et al (2005). The psychological implications of floods have been emphasized through a longitudinal study of two communities affected by floods in 1998. The study revealed that the affectees felt more psychological and physical problems. These psychological impacts continue till very long after the flood has over (Tapsell et al, 2003). The effected became sensitive and feel anxiety, stress whenever heavy rains or rivers raise their levels or some panic attacks happen. They also suffer from lethargy, sleeplessness, nightmares and intoxication, unjustified anger and even thinking of suicides (Penning-Rowsell et al, 2005).

One of the impacts of floods and other natural disasters is the displacement of the affected people from their homes to an unknown place but “unlike refugees they have not crossed an international boarder” (IDMC, 2006, p.9). The UN’s guiding principles on Internal Displacement describe IDPs as individuals or group of individuals that are compelled to leave their homes or habitats in order to avoid the adverse effects of natural or man-made disasters, but do not cross the international boundaries of the state (UNOCHA, 1998)

In the year 2010, suddenly happened events mainly floods and storms compelled 38 million individuals to displace across the globe (IDMC, 2011a) among which 11 million were in Pakistan due to flood caused by the monsoon rains in mid of 2010 bringing one-fifth of total land in Pakistan under water (NDMA, 2010). However, Ali, (2010) has recorded number of IDPs as many as 20 million.

Pakistan witnessed the largest number of IDPs due to 2010 floods in its history. The situation was nerve testing for the government authorities, national and international organizations, due to happening of successive natural disasters in a short period of time, which compelled people to displace from their homes. The earthquake of 2005 caused displacement of 3.5 million people in Azad Kashmir and parts of Khyber Pakhtunkhwa (KP), and floods of 2007 in Baluchistan displaced some 300,000 and finally the massive displacement occurred due to floods in 2010, however, many refused to leave their homes due to exposure of their females to other communities (IDMC, 2011b).

Displacement, in any case, has a deep effect on the family as well as social-economic life of the community. It affects life by losing the assets, the economic activities and other social services. The dire implication for the displaced people is

their detachment from their belongings such as land, utensils, work equipments, and above all their livestock. The miserable situation is further deepened by the rare access to the facilities of life such as food, healthcare, and education (Risser et al, 2003).

Women, living near the site of displaced people told IDMC that the IDPs confront severe problems in connection to their security and life due to scarcity of shelter, food items, drinking water, healthcare facilities as well as life security (IDMC, 2011b).

The social and economic life of internally displaced people is almost shattered as they have lost their means of livelihoods being “deprived of access to food and means of production, like arable land” (IDMC, 2006, p.23).

One of the major problems of displaced people is their economic instability due to scarce opportunities of work in the new locations. The usual labour market provides very limited access to the displaced people and hence they find occasionally any job. They mainly rely, for their economic needs, on the assistance from the government and social networks (ICRC & Brookings, 2011).

Majority of the IDPs are unable to shift their belonging from homes to the new location. They got deprived of their store food items, household livestock, daily life clothes and many more. Sometime the displaced pay visits to their home and collect the things left there in their homes. The IDPs try their level best to cope with the situation by working on minimum wages, begging, wandering in search of food and other necessities of life, as well as humiliatingly rely on the benevolence and bounty of the nears and aliens. Then life is too miserable for them (Risser et al, 2003).

The relationship among the people of host communities and the IDPs is also very complex. At the beginning, IDPs are received warmly by their relatives and friend and even by those strangers to them, but later on the enthusiasm gets faded away due to the misfortune of the hosts. In some cases, the displaced people are treated aggressively by the people in the host communities due to fear. The IDPs are sometime subject to discrimination at the workplace and other civic activities (ICRC & Brookings, 2011).

Education enables the displaced children to get access to the basic things for the development of their personality (UNHCR, 2005); however, the displaced children rarely get such an opportunity. In a very few circumstances, the children in IDPs camp have adequate facilities for their education (The Brookings, 2005).

Among the main hindrances in the way of providing educational facilities to the displaced children is financial cost of education. The Guiding Principles on Internal Displacement entrusted the responsibility of the primary level education of displaced children to the national authorities (UNOCHA, 1998); however, practically it rarely happen and parents bear the expenses for their children education. Still it is difficult for the parents to send their children in the countries having free primary level education due to non-availability of uniform and books etc. (Human Rights Watch, Colombia, 2005; ICRC, 2005; South Asia Forum for Human Rights, 2005). On the other hand, the displaced youth has very few chances to get into secondary education and beyond (WCRWC, 2004.).

Another important cause of displaced children being away from educational institutions is the poor infrastructure. The local institutions provide the opportunities to the children (Brown, 2005) but in the refuge areas, the schools and other public

buildings are utilized for accommodating the displaced people that adversely affect the education process of both the host and displaced children. Besides, the girls have little opportunities of education as the parents fear their security and sexual harassment while going to and coming from the schools (Kirk, 2005).

The situation of education was addressed primarily by both national and international non-governmental organizations. For example, the NRC Youth Pack programmes specified half of the spaces of the classes for displaced girls. The Inter-Agency Network for Education in Emergencies (INEE) chalked out programmes for the availability of education to the affected in the emergencies during 2004. Nonetheless, education is the most neglected sector in the emergencies across the globe with respect to allocation of funds by the agencies (IDMC, 2006).

Many of the displaced people, who were interviewed during the study provided that school are available to them in the new location of the city, but they can't afford the fees as they face hardships in adequate earnings (Risser et al, 2003).

Very little information is available on health issue of displaced persons, and therefore, the studies mostly relying on anecdotal evidences. The displaced persons are susceptible to a number of diseases such as malaria, diarrhea, tuberculosis, cholera, measles, meningitis, polio, yellow fever and respiratory infections. These diseases are mostly caused by the non-availability of clean drinking water and inadequate sanitation, which is indispensable for the human health. Besides, the IDPs have little access to healthcare services (IDMC, 2006).

The outbreak of these diseases is due to the massive dislocation of the affected people. The arrival of huge number of displaced persons in the new location caused overcrowding, which disturb the availability of adequate sanitation, proper condition

of the residences, clean water for drinking and healthy food items to the displaced persons. The situation resulted in the vulnerability of the IDPs to various diseases, especially the young ones, the elderly people, and those who are physically less resistant (Risser et al, 2003). Realizing the dire need of healthcare, the Guiding Principles on Internal Displacement provide that the state authorities would ensure the availability of reasonable conditions of healthcare and hygiene to the displaced persons (UNOCHA, 1998).

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The situation become worsen further, when the affected person displaced from the flood affected areas and move to towns and cities with a hopeful optimism brought infection to the new location. The infection is then spread out in the new location where the diseases are already controlled due to persistent effort of the governmental and non-governmental organizations (Wisner et al, 2004).

Protection is an important issue concerning the displaced persons in the wake of a disaster and all the displaced persons are entitled to have equal right to protection irrespective of gender (UNOCHA, 1998). Women are the most vulnerable quarter of the IDPs and are subject to gender discrimination; however, the situation may vary in different places (IDMC, 2011b).

The internally displaced persons fall victim to the hostility of the local host communities due to prejudice against the IDPs and consider them a threat to security. One of respondent from the host community in Suba provided that the influx of displaced persons caused insecurity because of having bad people among them. We were afraid to return back home late at night. On the other hand, a displaced woman in the town of Suba felt herself insecure in the new place due to persistent risk to her life (ICRC & Brookings, 2011).

The sexual harassment and sexual assault in case of displaced women is another issue of their protection. There is very little information available regarding sexual violence before and after the 2010 floods in Pakistan, however, people feel reluctance to leave their women alone as sexual violence may happen in their absence. The fear is higher for the unmarried females (Protection Cluster, 2010). The women are sexually harassed while they are going for bringing water. The harassed women are usually prevented, to share their experiences, by the older women to ensure the continuity of food supply. The women usually move in groups to avoid the harassment or violence (OCHA, 2011).

Protection in many cases is a part of survival struggle. The displaced persons want to return safely to their homes and settle there. In such a situation they could be able to return to a sustainable livelihood. One of the major issues of displaced people is the availability of food items as they are living in a situation where they have lost all their assets as well as having no source of earning, because as they are no more on their farms and the hiking prices of food items due to disparity between supply and demand (Risser et al, 2003).

The World Food Programme provides the destitute in the camps with wheat flour, cooking oil, pulses, iodized salt as well as biscuits and ready-to-use nutritious paste for children on monthly basis. On returning home, the food items were tied with rebuilding work for their own and community in general (WFP, 2010).

Natural disasters harshly affect the individuals with respect to homelessness. The effect is more (97.7% of the total world's natural disasters) visible in the developing nations in comparison with the developed ones. The poor people are more

likely to be the sufferers of natural disasters as they have neither safer place nor built their homes with quality construction materials (Gilbert, 2001).

However, soon after the occurrence of natural disasters, the shelter issue is attempted to solve in different ways in the context of emergency. These include the building of shelters on emergency basis, displacement of the sufferers to the safe places and affected people are supported to build temporary homes for themselves (Independent Evaluation Group, 2006). Then too, the displaced people are mostly accommodated by the host communities without any rent, though only 3% IDPs reported to pay rent for the sheltering facilities. About 17% affectees suffered sheltering problem, whereas 45% unsatisfied with the sanitation in the new abode (SEBCON, 2009).

Employment is an important issue in the inhabitants of poor communities in general and the situation is worsening for the displaced person in particular for variety of reasons. For example, the employer biasness, personal inadequacy of IDPs regarding knowledge and training. Furthermore, a competition prevails in the establishment of business between the host community and displaced people, therefore, the displaced people earning their livelihood in other places and thus subject to travelling cost in addition. (ICRC & Brookings 2011) However, the displaced people have engaged themselves with the local farmers and in the local market as labourers, which depressed the wages in the local market. The displaced persons living with the relatives or friends compensate their burden by helping their host in their work on the farms or any other jobs they have (Risser et al, 2003).

The situation for women is more severe, as the IDMC interviewed women in Sindh province of Pakistan about the difficulty in having chance for income earning and this is an alarming situation for the female heads of the family. The slow recovery

process has adverse effects on the employment of the displaced persons (IDMC, 2011b)

Risser et al, (2003, p. 72) quotes a young man telling about the situation that displaced people encounter after their dislocation:

As for food, we had to buy everything. But we didn't have work, so we didn't have money to take care of our families. So many people were begging in the market. Many of those begging were children, around one hundred of them. When a car passed by, these kids would run in a flock behind it to ask for food. Sometimes car owners would buy candies to hand out to the children.

The environment of an area is very important and is affected by the dislocation of people. Environment is composed of biosphere, lithosphere, hydrosphere and atmosphere. The biosphere comprises of both plants and animals. It is adversely affected by the displaced peoples due to their greater number and the relationship between the people of host community and displaced community (Black, 2001; McGregor, 1993). Besides, the relocation of IDPs also adversely affect the forestation in order to meet their residential needs as well as for fire and earning livelihood from selling of the wood (Languy, 1995 as quoted in Kalpers, (2001).

Lithosphere deals with the hard portion of land and its utilization. The camping of the displaced persons in the semi-arid zone with a huge population causes degradation of the land for onward agricultural activities. Jacobsen (1997) examines that the degradation of land results in the excessive use of other resources such as shortened fallow period of cultivatable fields that adversely affect the fertility of the land, excessive grazing of the IDPs livestock.

Hydrosphere is an important part of the environment. The dislocation of the IDPs, has also badly affected by both surface and ground water. The inadequate sanitation system and widespread pit latrines due to the dislocation of IDPs pollute the

water resources, which then cause diseases such as cholera and meningitis (UNEP, 2000). The emergency camps constructed without any proper planning with water reservoirs insufficient for the population residing there cause depletion in the water capacity and quality (Hoerz, 1995a, as cited in Jacobsen, 1997).

The atmospheric issues are equally important in connection with impact of displaced persons on the environment. The newly displaced people disturb the balance of the atmosphere. However, more research studies are required to be held in the area by the social scientist (Oucho, 2007).

The studies on displacement devoid the issues of mental health; however, it is unanimously agreed upon fact that displacement is stressful and anxiety ridden. It is very difficult for the social surveyors to read the human mind and therefore, find difficulties in associating the psychological effects with displacements. The authorities have to acknowledge the mental health as highly risky factor and ensure to establish counseling services in both the pre- and post-displacement periods, so that the people are ready to cope with the stress and strain and other psychological problems in case of mishaps. Mental health is pivot for the quality life of the displaced people (Nayak, 2000).

The psychological implications of the displacement on various age groups of the displaced peoples are not as easy as they seem to be, and it is also difficult to define the effects on the present state and future position of the dislocated folk. However, a targeting analysis should be taken into account while dealing with different aged people such as children, adolescents, youth, and adults. There are three categories of displaced population; firstly, those people who were mature before the displacement; secondly, those who were in their adolescence at the time of displacement; and thirdly, those individuals who were either very young at the time of

displacement or born during displacement period. In the prolonged displacement the generations are shifting from one category to another. Each category of these age groups had their own specific psychological issues during the displacement, and hence become difficult to establish a linear comparison of their psychological effects (Holtzman & Nezam, 2004).

Many of the displaced people are reluctant to return back due to fear of forced labour and anxiety for compensation of the crops. While some find new jobs which cause satisfaction for them and they consider them as new avenues open to them while interacting with the other communities (IDCM, 2011a).

CHAPTER THREE

RESEARCH METHODOLOGY

The purpose of the study was to find out the socio-psychological effects of internal displacement on flood affected people. Quantitative research design approach social phenomena through quantifiable evidence, and often rely on the empirical and statistical analysis of the data for the valid and reliable generalization, while qualitative researches are carried out through participant or non-participant observation or content analysis. Methodology essentially provides a guide line to the researcher in conducting the research and also serves as a tool for the evaluation of new knowledge. Research methodology is the complete framework of the entire research activity. The main purpose of this chapter is to highlight instrument used for collection of data, sample and sample technique and procedure adapted during the study, statistical package used for analysis and operationalization of the variables. Research methodology and design follow for the study in the forthcoming section

3.1 Research Design

Research design is the proper arrangement of conditions for collection and analysis of the data in a manner that aims to combine relevance to the research purpose (Rafiq, 2006). Research design gives a detailed picture of how the researcher intends to conduct research. Research design deals primarily with purposes, intentions aims and plans within the practical constraints of time, money location and availability of staff. In order to have a systematic and deep understanding of the topic quantitative research design was employed in the study.

3.2 Population of the Study

Population is a total aggregate of elements from where sample is selected on the basis of sampling technique and where researcher is interested to conduct research. The Population of the study comprised of all affected people of the flood in general and internally displaced person in particular in Khyber Pakhtunkhwa. Population is the broad class of units that are covered in a hypothesis, all the units to which findings of a specific study might be generalized (Neuman, 2004).

3.3 Sample of the Study

Sample is defined as subset of population from which it is selected. A particular portion from the population will be chosen for the conduct of research study (Verma, 1989, p73). The sample can be different types, which will be chosen in a way that best serve the purpose of the study.

Three hundred and ninety Six respondents will be selected following the guidelines for determining the sample size by Kregcie & Morgan (1970), using multiple-stage sampling technique in the study.

3.3.1 Sampling Frame

A complete list of sampling units from where the research select their sample through different techniques is called sampling frame. Sampling frame for the current study was list of flood affected and internally displaced person obtained from camps, government and nongovernmental organizations.

3.3.2 Sampling Procedure:

Data was collected through adopting multi stage sampling technique.

- At first stage of sampling two most affected districts namely Swat and Charsadda were selected through purposive sampling as 634,654 and 502,732 people were affected respectively (<http://pdma.gov.pk>).
- At second stage of sampling nine union councils were selected through proportionate random sampling from both districts.
- At third stage Twenty two male and Twenty two female respondents were selected through random sampling from each union council. The data was collected from the following nine union councils namely MC1, Ternab, Derizardad, Utmanzai, Mankyal, Islamapur, Maydan, Besham, and Kalam.

3.4 Research Instruments:

Pre-designed interview schedule including both open ended and close ended questions, was prepared as research instrument for the study, though this instrument data has been collected from 396 flood affected internally displaced persons in their respective districts. The interview schedule comprises of both open-ended and close-ended questions for the convenience of respondents. The instrument is divided into different parts in combine form like

1. Personal profile of the respondents
2. Household profile
3. Social effects of flood
4. Psychological effects of flood
5. Facilities provided to internally displaced persons.

3.4.1 Pilot study:

Pilot study was conducted for the improvement of the instruments. Before the collection of actual data, measurement tool was pre-tested from 20 randomly selected respondents from the target population (10 from each study districts). According to the willingness and convinces of the respondents some questions were added, deleted, modified and response categories were changed. This process was very essential to check the workability of the measuring instrument. At the end question order and the layout of the interview schedule was adjusted to collect rich and authentic information from the respondents.

3.4.2 Editing:

Editing is the process of examining, checking and adjusting the data for omissions, legibility and consistency. Editing may be distinguished from coding, which is the assignment of numerical scales or classifying symbols to previously edited data. The purpose of editing is to ensure the completeness, consistency, and readability of the data to be transferred to data storage. The editor's task is to check errors and omission in the questionnaires or other data collection forms before data entry in computer.

3.4.3 Coding:

Coding involves assigning numbers or other symbols to answers so the responses are grouped into limited number of classes or categories. The classifying of data into limited categories sacrifices some data detail but is necessary for efficient analysis. Codes are generally considered to be numerical symbols; they are more

broadly defined as the rules for interpreting, classifying and recording data. Codes allow data to be processed in a computer.

3.5 Data Collection:

Data can be gathered with a well questionnaire in three ways: by using a written questionnaire, by personal interviews, and by telephone interviews. (kidder, nd. p221)

Data was collected by the researcher conducting semi-structured interview personally. In some area female flood affected respondents were out of access for the researcher, so from them data has been collected by female, which were hired and trained for distribution of questionnaire and collection of data.

Along with formal collection of data through well designed interview schedule, the researcher was also keenly interested in scientific observation. Flood damages to houses, shops and to agriculture land and their products, health problems, educational institution damages and facilities provided by different governmental and nongovernmental organization were directly observed by the researcher.

3.6 Data Analysis:

The data analysis in the research project is very much important. In applied research, data analysis and preparation of the final report are two sides of the same coin. (Rubin, 1983. P 379) Data analyzed and evaluated using Statistical Package for Social Studies (SPSS).

Data was presented, interpreted and summarized in univariate and bivariate table and interpretation. Univariats were analysed by percentage of the respective category. Mean, median, mode, standard deviation, range and variance were also used

for probing social, economic and psychological variables of flood and internally displacement.

Bivariates were analyzed through different statistical tests such as Chi square test, Lambda, Gamma. These test statistics were applied to the data for test the significance of concern hypothesis.

3.7 Statistical Techniques:

Descriptive statistics were used for analysis of independent and dependent variables in multivariates and bivariates. Statistical techniques such as Chi Square, Gamma and Lambda were used for finding relationship between variables, respectively with the nature of the data in bivariates tables.

3.7.1 Mean:

Frequency distribution of univariate was explained in the form of percentage and some of them are supported by their mean, median and Standard Deviation. Percentage were calculated with the help of following formula

$$X = \frac{\sum fx}{\sum f}$$

Where:

X is sample mean

f is corresponding frequency

x is number of observation

3.7.2 Median:

Chaudhry & Kamal, (2001) define median as the value which divided the order data into equal parts, one part comprising the observation greater than the value and other smaller. Median is calculated with the help of following formula

$$Median = l + \frac{h}{f} \left(\frac{n}{2} - C \right)$$

Where:

l is the lower boundary of the median group

h is difference between group

f is frequency of median group

n is total frequency

C is cumulative frequency

3.7.3 Chi-Square Test

Chi square was used to find out the relationship between dependent and independent variables, chi square test is equally important and applicable for the quantitative and qualitative data and can be calculated with the help of below formula

$$\chi^2 = \sum \frac{(o - e)^2}{e}$$

Where

O is observed values

E is expected values

The chi square test was tested on .001 and .05 of level of significance.

3.7.4 Gamma:

Gamma is a frequently used test statistic for finding out the association between independent and dependent variables. Gamma is commonly used for the ordinal nature of data. Gamma has been used in the study in a bivariate analysis tables.

Leother & Mcdonald, (1980) define Gamma as:

“Gamma is a symmetric measured of association so that the value calculated remains the same regardless of which of variables is specified as independent and which is specified as dependent.”

3.8 Delimitation of the Study

To save time and energy of the researcher and to be more to the point and focus on the research topic, the study was delimited to:

1. Urban areas of the affected zone
2. Age group of 20-60 years
3. Married individuals

3.9 Operationilazation of Variables

Age:

Age is the growth and changes in a person over a period of time one the most important social variable. In general age is multidimensional change in physical, social and psychological condition of human over time. Socio-psychological impacts of the flood and internal displacement have direct relation with the age of the affected people. Age group was selected in the study is in range of 20 to 60 years old. This age

group is in position to better understand and interpret the situation. In the current study age means number of total years completed by the respondent at the time of interview and will be categorized into the following table

i.	20-29
ii.	30-35
iii.	36-40
iv.	41-45
v.	Above 45

Profession

Profession is defined as a certain and continuous activity in order to earn livelihood and maintain a definite social position and status in society. In the study, profession of the respondents was quantified through the following categories

- Government Job
- Private Job
- Own Business
- Skilled/unskilled labor
- Agriculturist and pastoralist
- Unemployed and housewife

Education:

Education is a consciously controlled process through which changes in behavior and attitudes of an individual according to their social group. Education plays an important part in social characteristic of the individual and considered to be very important sociological indicator in understanding and defining respondent’s behavior.

In the current study education was measure in the form of completed years of schooling of the respondent. It indicates that how many years of education a respondent have pass. It is express in the following table

Educational attainment (in completed years)

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	18+
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	-----

Family Structure:

Family is relatively permanent group of people who are related by blood, marriage or adaptation, live together and form an economic unit, and take care of their children. (Roberston, 1987).

Family in one of the important and basic social institution of human society. The family structure has important demographic social and economic consequences. In the current study family structure was measure in the following type:

Nuclear Family

Nuclear family consists of husband, wife and their unmarried children. This type of family is prevailed in modern and industrialized societies.

Joint Family

Joint family comprises of husband, wife and their married children who are oftenly live under one roof. In the traditional and agricultural societies most of the people living in joint family system.

Extended Family

Extended family consists of husband, wife, married children and sibling of the couple under one roof. In this type of family system three or above three generation living together.

Health

Health is one of the most important variables in social researches. In the current study health was taken as the different types infections due to contaminated flood water in the area. Health was measure in the form of following problems and infections faced by the flood affected people in the area:

1. Skin infection

- a. Scabies
- b. Acne (minor pimple & small Pitch),
- c. Erythroderma (redness of all skin)
- d. Xerosis (skin become dry),

2. Eye infections

- a. Eye Inflammation,
- b. Eye redness
- c. Puffy eyes (Swelling),

3. Gastric problems

- a. Diarrhea,
- b. Cholera
- c. Acidity

4. Simple, spiral and compound fractures

Internal Displacement

Internal displacement may be the cause of different emergencies both by manmade disasters or natural calamities. In this study flood induced internally displaced persons were selected for the study in the target area. Different aspects of flood induced internal displacement were address in the study such as duration of displacement, number of internally displaced person in the camp, and different type of facilities rendered by government, nongovernment and private sector in the refugee camp to internally displaced persons. Internal displacement was quantified by the following variables

- Duration of displacement
- Frequency of camp change
- Number of refugee in camp

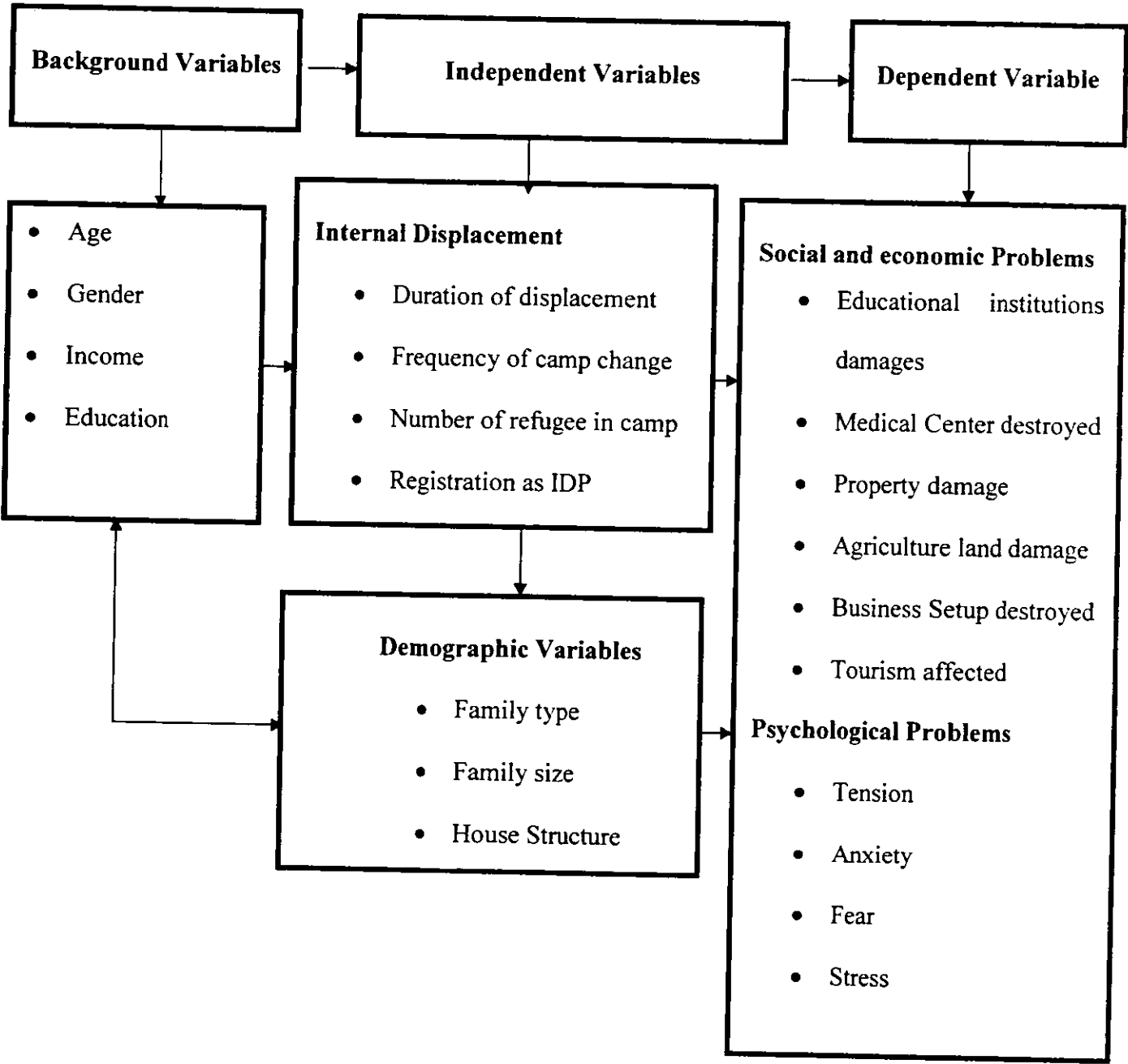
Psychological problems

Psychological disorder are any pattern of behavior that causes people significant distress, causes them to harm others, or harm their ability to function in daily life. Psychological problems arise in the wake of flood in the area, and increase in camps. The current study focus on the different psychological problems faced by the internally displaced flood affected people such as Stress, anxiety, stress and depression. Psychological problems were measure from the following symptom:

- Overreaction with family members and friends
- Lower level of interest in routine work
- Fear and restlessness in the rainy season
- Continuous sadness and gloomy

3.10 Conceptual Framework

The researcher deigned the following conceptual frame work for the study of socio-psychological impact of internal displacement of flood in the District Swat and Charsadda in Khyber Pukhtoonkhwa. The following framework comprises of background variables, independent variables and dependent variable were defined and operationalized for further statistical tests.



CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

The data collected from the selected sample of district Charsadda and Swat was analyzed and tabulated. The data was examined through both univariate analysis and bivariate analysis.

4.1 Univariate Analysis

The data was presented and explained in the form of univariate tables. Univariate table was explained with the help of frequency distribution on individual argument and it comprises of statement of the problem. Each and every question of the research instrument is described in univariate table. Univariate gives an overall idea about the social, economic, agriculture and psychological problems, as unit of analysis, were occurred in the wake of the flood and internal displacement in the target area. Some of the univariate tables were also supported by the mean, median, standard Deviation and variance. Through Univariate tables both continuous and discrete data was analyzed.

The study was designed to find out the Socio-psychological effects of flood on affected persons in general and of internal displacement in particular. Table 4.1.1 is about the important social variables, which affect all aspect of life in one or the other way. Table is comprised of districts, age, gender, marital status and number of male and female children of the respondents. Equal number of male and female affectees was selected. The data was accumulated from the respondents belonging to age group 20 years to 60 year, and all of them were married.

Table # 4.1.1 Distribution of the respondents by District, age, gender, marital status and number of male and female children

District of residence of the respondents			
Sr. No	Statement	Frequency	Percent
i.	Charsadda	189	47.7
ii.	Swat	207	52.3
iii.	Total	396	100.0
Age of the respondents			
i.	20-29	65	16.2
ii.	30-35	64	30.8
iii.	36-40	122	14.9
iv.	41-45	59	21.2
v.	Above 45	86	22
vi.	Total	396	100
Mean = 38.54, Median = 39, Mode =36, Std. Dev. = 8.835, Variance = 78.057, Range = 40			
Gender of the respondents			
i.	Male	198	50.0
ii.	Female	198	50.0
iii.	Total	396	100
Marital status			
i.	Married	356	89.9
ii.	Divorced	6	1.5
iii.	widow/widower	31	7.8
iv.	Separate	3	.8
v.	Total	396	100.0
Male Children			
i.	No Male Child	36	9.1
ii.	1-2	182	46
iii.	3-4	156	39.4
iv.	Above 4	22	5.6
v.	Total	396	100.0
Mean = 2.27, Median = 2, Mode =2, Std. Dev. = 1.398, Variance = 1.953, Range = 7			
Female Children			
i.	No Female Child	47	11.9
ii.	1-2	193	48.7
iii.	3-4	121	30.6
iv.	Above 4	35	8.8
v.	Total	396	100.0
Mean = 2.41, Median = 2, Mode =1, Std. Dev. = 1.652, Variance = 2.730, Range = 7			

4.1.1 Social Characteristics:

The above table is about the district of residence of the respondent and union council, 396 respondents were selected from both districts in which 47.7% of the respondents were selected from District Charsadda and 52.3% were from District Swat. District Swat was more severely damaged than District Charsadda in the July 2010 flood that is why more respondents were being selected from District Swat than Charsadda through purposive sampling. According to Pakistan Disaster Management Authority (PDMA), in Swat, 634,654 people were affected from 2010 flood while in Charsadda 502,732 were suffered. For this purpose four out of Nine Union Councils were selected from district Charsadda and five out of Nine union councils from district Swat on the basis of the proportion of affected people in the flood.

Data was collected from Nine Union Councils namely Municipal Committee 1, Tarnab, Derizardad and Utmanzai from District Charsadda and Mankyal, Islampur, Maydan, Besham and Kalam from District Swat selected through proportionate random sampling for the collection of data. From each Union Council respondents were selected through random sampling technique. Flood affected most of the urban area in both districts and particularly in District Charsadda, that's why urban area was selected for collection of data from the target Union councils.

The table shows the age of the respondents in which 16.4% of the respondents were less than 30 years, 16.2% were from 30 to 35 years, 30.8% were from 36 to 40 years, 14.9% were from 41 to 45 years, and 21.2% were above 45 years of age. The data was collected from the respondents whose age from 20 years to 60 years. Mean age of the respondent in the target area was 38.54, calculated median was 39, mode was 36,

Standard Deviation was 8.835 and variance of age was 78.057. The data shows that majority of the respondents were 38 years old who have better understanding of their damages and rising social and psychological problems.

Flood affected both gender equally that is why both male and female were concerned for the collection of data. Table indicates that 50% of the respondents were male and the rest of 50% of the respondents were female, equal number of male and female, 22 male and 22 female were selected from each the chosen Union Council through random sampling from both flood affected districts.

The table demonstrates that 89.9% of the respondents were married whose spouses were alive, 1.5% of the respondents were divorced from their spouses, 7.8% were those married people whose spouses had died, .8% of the respondents separated from living spouses. In the study only married people were the respondent so all of married people were selected in which negligible number of the respondents were divorced and living separately from their alive spouses due to the local culture of the Pukhtoon society.

Table illustrates that 11.1% of the respondents have no male child, 46% of the respondents have one to two male children, 39.4% of the respondents have three to four male children, and 5.6% of the respondents have above four male children. The data shows that majority of the married couple have two to four male children. The table also shows that mean of male children of the married couple was 2.27, median was 2, mode was 2, Standard Deviation was 1.398 and variance was 1.953.

The above table explains that 9.1% of the respondents have no female child, 48.7% of the respondents have one to two female children, 30.6% of the respondents have three to four female children, and 8.8% of the respondents have above four female children. The data shows that majority of the respondents have male and female children and less of them have no male or female child.

Table # 4.1.2 Distribution of the respondents by Profession, Monthly Income, House Structure and Ownership

Profession of respondent			
Sr. No	Statement	Frequency	Percent
i.	Unemployed	150	37.9
ii.	Government servant	60	15.2
iii.	Private servant	35	8.8
iv.	Business	23	5.8
v.	Farming	53	13.4
vi.	Pastoralist	10	2.5
vii.	Skill worker	33	8.3
viii.	Non skilled labor	32	8.1
ix.	Total	396	100.0
Respondent Monthly Income			
i.	Less than 10000	99	40.2
ii.	10000-15000	121	49.2
iii.	Above 15000	26	10.6
iv.	Total	246*	100.0
Mean = 7321.97 Median = 8500.0 Std. Dev. = 6.360E3 Variance = 4.045E7			
Family Monthly Income			
i.	Less 10000	91	23
ii.	10000-15000	99	25
iii.	15001-20000	119	30
iv.	Above 20000	87	22
v.	Total	396	100.0
Mean = 16757.58, Median = 16500, Mode =20000, Std. Dev. = 6228.6, Variance = 3.879E7			
House structure			
i.	Kacha	18	4.5
ii.	Semi kacha pakka	242	61.1
iii.	Pakka	136	34.3
iv.	Total	396	100.0

* employed respondents

4.1.2 Profession and income:

The above table is about the profession of the respondent, monthly average income of the respondent from all sources, the house structure, and house ownership. Profession and monthly income shows financial position of the respondent, which is important for the analysis of the socio-psychological aspects.

Table shows profession of the respondents in which 37.9% of the respondents were jobless. 15.2% of the respondents were in Government services, 8.8% of the respondent were in private services, 5.8% of the respondents have their own business, 13.4% of the respondents were engaged in farming profession, 2.5% of the respondents were concerned with livestock and earn their livelihood from the animals, 8.3% of the respondents were skilled hand in different fields, and 32% of the respondents were unskilled labors.

From the data it is proved that 37.9% of the respondents were unemployed, but majority of them were female, who were not allowed to work out side from home except some of the government job such as teaching.

Table shows respondents monthly income in which 40.2% of the respondents have less than 10000 rupees income per month, 49.2% of the respondents have monthly income ranging from 10000 to 15000 rupees and 10.6% of the respondents have above 15000 rupees per month income from all sources. The table also shows that mean of monthly income of the respondent was 7321.97 rupees, median was 8500.0 rupees, Standard Deviation was 6.360E3 and variance was 4.045E7. The data shows that majority of the respondent have average monthly income.

The above table indicates the monthly income of family members from all resources, which shows that 23% of the respondents have less than 10000 rupees family monthly income. 25% of the respondents have family income in range of 10000 to 15000 rupees, 30% of the respondents have family monthly income ranging from 15001 to 20000 rupees, 22% of the respondents family have above 25000 rupees of monthly income from all sources. The data shows that majority of the respondent's family monthly income fall in the average and they live their normal daily lives.

Table illustrates the structure of the houses in the target urban area of the study in which 4.5% of the respondents were living in the unpaved (kacha) mud made houses, 34.3% of the respondents were living in paved and cemented houses, and the rest of the respondents, i.e. 61.1% were living in partial paved (semi kacha pakka). The data clearly shows that majority of the respondents were living in the house which was constructed by the bricks fixed by mud and few of them have mud houses in the urban area.

Table # 4.1.3 Distribution of the respondents by Educational level, and their school going children

Formal education			
Sr. No	Statement	Frequency	Percent
i.	Yes	209	52.8
ii.	No	187	47.2
iii.	Total	396	100.0
Level of Formal Education			
i.	Primary	15	7.2
ii.	Middle	46	22
iii.	Higher Secondary	95	45.5
iv.	Bachlor & Above	53	25.3
v.	Total	209	100.0
Mean = 5.72 Median = 5.00 Std. Dev. = 5.869 Variance = 34.446			
School Going Sons			
i.	No school going sons	78	19.7
ii.	1	92	23.2
iii.	2	131	33.1
iv.	3	63	15.9
v.	Above 4	32	8.1
vi.	Total	396	100.0
School Going Daughters			
i.	No School going draughts	141	35.6
ii.	1	104	26.3
iii.	2	103	26
iv.	Above 2	48	12.1
v.	Total	396	100.0

4.1.3 Educational Attainment:

The above table is about the respondents' formal education, their level of education, school going male and female children. The table indicates the education of the respondents in which 52.8% of the respondents have received formal education while 47.2% of the respondents have received no formal education. Majority of the uneducated

respondents were comprised of the female slut which have less opportunities for getting formal education in the target flood affected area due to their cultural restraints.

Table shows the level of education gained by the respondents in which 7.2% of the educated respondents have primary education, 22% of the educated respondents have middle education, 45.5% of the educated respondents have higher secondary level of education which include matriculation and intermediate and 25.3% of the educated respondents have higher education such as Bachelors and, Master degree. The table also shows that mean of education level in the flood affected area was 5.72, median was 5.00, Standard Deviation was 5.869, and variance was 34.446. The table included only those respondents who have formal education.

Table demonstrates that 19.7% of the respondents have no school going male children and 80.3% of the respondents have school going male children, 23.2% of the respondents have one school going male child, 33.1% of the respondents have two male school going children, 15.9% have three male school going children, 8.1% of the respondents have above three school going male children.

Table illustrates the detail about respondents who have school going daughters in which 35.6% of the respondents have no female school going children, 26.3% of the respondents have only one female child, 26% of the respondents have two female school going children, and 12.1% of the respondents have above two school going female children.

The data shows that 141 percent of the respondents have no female school going children and only 78% of the respondents have no male school going children which

shows that the female have less opportunity for getting formal education and people were less interested in daughter's education than their male children.

Table # 4.1.4 Distribution of the respondents by Family type, Male, Female and earning members, and family monthly income

Type of family			
Sr. No	Statement	Frequency	Percent
i.	Nuclear	64	16.2
ii.	Joint	234	59.1
iii.	Extended	98	24.7
iv.	Total	396	100.0
Male Family Members			
i.	Less than 5	66	16.7
ii.	5-7	170	43
iii.	Above 7	160	40.3
iv.	Total	396	100.0
Female Family Members			
i.	Less than 5	57	14.4
ii.	5-7	238	60.1
iii.	Above 7	101	25.5
iv.	Total	396	100.0
Earning member of family			
i.	1	123	31.1
ii.	2	190	48
iii.	Above 2	83	20.9
iv.	Total	396	100.0
Ownership status of house			
i.	Own	245	61.9
ii.	Rented	112	28.3
iii.	Relative	11	2.8
iv.	rent free	28	7.1
v.	Total	396	100.0

4.1.4 Family Structure:

The above table shows information about the family of the respondent which includes family type, male family members, female family members and earning members of

family, and family monthly income, table shows that 16.2% of the respondents were living in nuclear family where only husband and wife and their unmarried children were there, 59.1% of the respondents were living in joint family system where parents have their married children living with them, and 24.7% of the respondents were living in the extended form of family system where other relatives were also the part of their family and living together under one roof.

The data shows that majority of the respondents were living in joint and extended type of family system where large number of family members were living under one roof, due the local culture of the respondents where nuclear family system is not appreciated by the common people.

Table indicates that 16.7% of the respondents have less than five male family members 43% of the respondents have five to seven male family members, and 43% of the respondents have above seven male members of their family, which shows that majority of the families have more than five male members in spite of living in the urban area of the districts where large family size is difficult to meet their need in a proper way. The data shows that mean number of male members was 6.68, median was 7.00, mode of the data was 8, Standard Deviation was 2.222 and Variance was 4.936.

The above table demonstrates that 14.4% of the respondent have female family members, 60.1% of the respondents have five to seven female members of their family and 25.5% of the respondents have above seven female members of the family, that shows that majority of family female members were above five in urban area. The data

also indicates that mean of female member in family was 6.32, median was 7.00, mode was 7, Standard Deviation was 1.824, Variance was 3.326 and Range was 11.

Table illustrates both male and female earning hand of the family in which 31.1% of the respondents have only one earning member in their family and rest of the member were dependent on the single person, 48% of the respondents have two earning members in their family and 20.9% of the respondents have above two earning members in the family which include three and four members who were earning. The data shows that majority of the families have one or two earning hands because of lack of opportunities of work in the area, such as non-availability of factories and other private and public sector enterprises in the locality.

The above table demonstrates that 61.9% of the respondents were living in their own houses, 28.3% of the respondents were living in rented houses, 2.8% of the respondents were living in their relative house without rent and 7.1% of the respondents were living in rent free houses other than their relative's houses. Data shows that in the urban area majority of the people have their own land but a large portion were living in rented houses due to expensive residential land.

Table # 4.1.5 Distribution of the respondents by Number and Distance from river(s), experiences and intensity, level and frequency of flood before 2010

Number of river			
Sr. No	Statement	Frequency	Percent
i.	No	65	16.4
ii.	One	287	72.5
iii.	Two	44	11.1
iv.	Total	396	100.0
Distance of river			
i.	Within Km	101	30.5
ii.	One Km	186	56.2
iii.	Two Km	44	13.3
iv.	Total	331	100.0
Flood experience before 2010			
i.	Yes	352	88.9
ii.	No	44	11.1
iii.	Total	396	100.0
Level of flood			
i.	High level	14	4
ii.	Medium level	162	46
iii.	Low level	176	50
iv.	Total	352	100
Frequency of flood			
i.	Once in year	176	50
ii.	Twice in a year	132	37.5
iii.	Three time in a year	44	12.5
iv.	Total	352	100.0
Level of water in frequent flood			
i.	up to 1ft	199	56.5
ii.	2-4ft	119	33.8
iii.	5-7ft	34	9.7
iv.	Total	396	100.0

4.1.5 Flood Experiences:

The above table shows information about the number of rivers, flood experience before 2010 and intensity level of flood before 2010, in the target area 16.4% of the respondents were living in the area where there is no regular river only the rain water create some problems for them, 72.5% of the respondents were living in area where there is one river

which some time over flow in the rainy season, 11.1% of the respondents were living in such area where two rivers were there. The data indicates that majority of the target area have one or two rivers Swat is a hilly area from where rivers start and spread in plain area of Charsadda and divide in various rivers.

Table explains that 30.5% of the respondents were in the area where river at the distance one Kilometer, 56.2% of the respondents were living in the area where river is in the range of one to two kilometers, and 13.3% of the respondents were living two to five kilometer from river. The data shows that majority of the respondents were living in the area where river is near to their residential area when it over flows and form shape of flood in the area.

The table demonstrates experience of flood before July 2010 in which 88.9% of the respondent have experienced flood in one or the other form before July 2010 flood in their area and only 11.1% of the respondents have no such experience of flood before July 2010. In the area where people have no prior experience of flood replied that water overflow has never been harmful for the people and property of the local area.

Table illustrates the level of flood that is experience before July 2010 flood in which 4% of the respondents were of the view that they experienced flood of high intensity before 2010 46% of the respondents experienced medium level of flood before July 2010 while 50% of the respondents experienced low level of flood before 2010 flood. The data shows that although people of District Swat and Charsadda experienced floods in the past but that were not of high level and were less affected. In the above table

of level of flood only those respondents were incorporated who have experienced flood previous to July 2010.

The above table demonstrates frequency of flood in two districts in which 50% of the respondents were of the view that they experienced flood once in every year having different intensity in different years, 37.5% of the respondents have experienced flood twice in one year and 12.5% of the respondents have veteran flood trice in a year. Data shows that both districts were at risk every year, and in the rainy season people suffered from flood in the urban area.

The above table demonstrates level of water in frequent flood in which 56.5% of the respondent were of the view that experienced flood up to one feet in frequent flood, 33.8% of the respondents had experienced flood in range of two to four feet in frequent flood and 9.7% of the respondents had veteran flood in range of five to seven feet in the fret normal flood.

Table # 4.1.6 Distribution of the respondents by level of water, house, shop or factory, home documents, academic documents damage

Level of water in 2010 flood			
Sr. No	Statement	Frequency	Percent
i.	Up to 1ft	6	1.5
ii.	2-4ft	26	6.6
iii.	5-7ft	299	75.5
iv.	above 7ft	65	16.4
v.	Total	396	100.0
House damage			
i.	To great extent	137	34.6
ii.	upto some extent	94	23.7
iii.	not at all	165	41.7
iv.	Total	396	100.0
Shop or factory damage			
i.	Not Applicable	352	88.9
ii.	To great extent	41	10.4
iii.	To some extent	3	.8
iv.	Total	396	100.0
Home documents destroy			
i.	To great extent	13	3.3
ii.	To some extent	47	11.9
iii.	Not at all	336	84.8
iv.	Total	396	100.0
Academic documents destroy			
i.	To great extent	15	3.8
ii.	To some extent	23	5.8
iii.	Not at all	358	90.4
iv.	Total	396	100.0

4.1.6 Property Damages:

As every member of the affected community possesses some sort of tangible asset, which may include houses (may be poorly constructed with feeble items), crops, home-utensils, livestock, and above all the electronic appliances (del-Ninno et al 2001). The above table shows the level of flood in recent July 2010 flood and the destruction in the area, the

table shows that 1.5% of the respondents had one foot water in July 2010 flood where river is far away from their homes , 6.6% of the respondents have experienced flood in the range of two to four feet high water level in their homes, 75.5% of the respondents were confronted with high level of flood in their area and water in their homes were five to seven feet high, while 16.6% of the respondents were of the view that there was above seven feet water in home during July 2010 flood. The data shows that majority of the respondents experienced high level of flood.

The table explains that 34.6% of the respondents' houses were severely damaged in the flood, 23.7% of the respondents' houses were partial damaged and only 41.7% of the respondents' houses were not damaged in the flood. The data shows that majority of the respondents' houses were semi cemented that is why flood severely affect their houses and where the flow of water was in rush.

The above table demonstrates that flood not only damaged the houses of the area but also shops and factories. The table shows that 88.9% of the respondents viewed that shops and cottage industries were severely affected from flood, 10.4% of the respondents viewed that shops and small scale industries were up to some extent damaged, while only .8% of the respondents vision that flood did not affect the shop and factory. The data clearly shows that in the area of flood shops and small scale industries were rigorously affected from the July 2010 flood majorly hit the urban area of both districts in general and District Charsadda in particular.

Table illustrates that flood also affect the home property documents 3.3% of the respondents' home documents were destroyed from the flood, 11.9% of the respondents'

home documents were partial damaged and misplaced in the flood, while majority of the respondents i.e. 84.8% were successful in saving their home documents during flood. The data shows that people take extra care of their precious documents like home and property documents.

The above table demonstrates that in the recent flood, the academic credential were also destroyed, 3.8% of the respondents were of the view that their academic documents were completely destroyed in the flood, 5.8% of the respondents lost their academic documents in the flood up to some extent while 90.4% of the respondents were of the view that flood render no harm to their academic credentials. The data shows that documents both the property and academic were less affected from the flood because people were very much concerned about these documents and those who lose such documents were due to the emergency situation in time of evacuation from their home.

Table # 4.1.7 Distribution of respondents by flood damages in Jewelry, home appliances and utensils and forest

Jewelry misplaced			
Sr. No	Statements	Frequency	Percent
i.	To great extent	11	2.8
ii.	To some extent	24	6.1
iii.	Not at all	361	91.1
iv.	Total	396	100.0
Home appliance destroyed			
i.	To great extent	149	37.6
ii.	To some extent	154	38.9
iii.	Not at all	93	23.5
iv.	Total	396	100.0
Home utensils damage			
i.	To great extent	146	36.9
ii.	To some extent	171	43.2
iii.	Not at all	79	19.9
iv.	Total	396	100.0
Forest damage			
i.	To great extent	171	43.4
ii.	To some extent	36	8.8
iii.	Not at all	189	47.7
iv.	Total	396	100.0

4.1.7 Home Article Damages:

The preceding table shows that 2.8% of the respondents have completely lost their jewelry in the recent flood of July 2010, 6.1% of the respondents have partial lose of their jewelry while 91.1% of the respondents have no lose of jewelry in the flood. The data shows that less of the respondents faced problem related with Jewelry or other precious things.

The above table explains that 37.6% of the respondents' home appliances were damaged up to great extent, 38.9% of the respondents' home appliance damaged up to

some extent while only 23.5% of the respondents' home appliances were not affected by the flood. The data clearly shows that home appliances were very much damaged in the recent flood because the level of flood was very high. In the recent flood majority of the respondents houses were severely damaged because of seven and eight feet high water.

The above table shows that along with home appliances, home utensils were also very much damaged in the flood, in which 36.9% of the respondents' home utensils were severely damaged in the flood, 43.2% of the respondents' home utensils damaged up to some extent while only 19.9% of the respondents' home utensils were not that much affected by the flood. Daily use home appliances and utensils were spoiled in the flood due to high level of flood in the area.

Table illustrates that forest were also very severely. The table shows that 43.4% of the respondents hold the view that forest in their area was harshly affected from the flood, because flow of water during the flood was very speedy and this high speed uprooted trees, 8.8% of the respondents were of the view that in their area forest is less affected from flood because of the flow of water was not rapid and 47.7% of the respondents responded as no forest was damaged. There is no forest in district Charsadda so flood did not affect the forest while the rest of 207 of the respondents of the district Swat were of the view that forest was very badly affected.

Table # 4.8 Distribution of the respondents by tourism, hotels, tourist spots and roads damages in their area

Tourists visits your area			
Sr. No	Statement	Frequency	Percent
i.	Yes	207	52.3
ii.	No	189	47.7
iii.	Total	396	100.0
Significant decrease in tourists			
i.	Yes	207	52.3
ii.	No	189	47.7
iii.	Total	396	100.0
Hotels destroyed			
i.	To great extent	182	87.9
ii.	To some extent	25	12.1
iii.	Total	207	100.0
Tourist spots damage			
i.	To great extent	185	89.4
ii.	To some extent	22	10.6
iii.	Total	207	100.0
Roads badly affected			
i.	To great extent	189	91.3
ii.	To some extent	18	8.7
iii.	Total	207	100.0

4.1.8 Tourism affected:

Tourism industry is an important part of the world economy as it engages 625 million individuals and involves USD 445 million only in the year of 1998 according to World Tourism Organization (WTO, 1999). However, mostly tourism poses risky situation because of its magnificent as well as remote location (Murphy & Bayley 1989) that could be expose to the flooding due to water streams.

The above table shows the areas which were visited by tourists, decrease in the visits, and tourists hotels, spots and roads damages. Table explains that 52.3% of the respondents'

area is visited by the tourists, 47.7% of the respondents' area is not visited by tourists, as in district Charsadda there is no tourism while in district Swat is the like the Switzerland of Pakistan and tourist hub too, so the flood affected tourism.

The above table explains that there is significant decrease in the tourist visit due to flood, 52.3% of the respondents' area were affected by the flood with significant decrease in tourism, in district Charsadda there is no tourists due to which no significant was seen on tourism impact on tourists and 47.7% of the respondents' view that flood has no effect on tourists visits.

The above table shows that tourist hotels were affected by the flood in which 87.9% of the respondents view that flood affects tourist hotels very severely, 12.1% of the respondents view that tourist hotels were less damaged during flood, from the above table 189 respondents view were excluded where there is no tourism.

The above table illustrates that flood affected tourist spots in district Swat, 89.4% of the respondents' view that tourist spots were severely damaged in their area up to great extent, 10.6% of the respondents' view that tourism is less affected by flood in their area. The data shows that majority of tourist spots were damaged which significantly decreased the number of tourist.

The above table shows that tourism affected from the roads condition in the July 2010 the road were severely damaged about 91.3% of the respondents view that roads were damaged from flood which directly affect tourism in their area and only 8.7% of the respondents viewed flood had less affected roads.

Table # 4.1.9 Distribution of the respondents by affected business, exchange of culture, unemployment, purchasing power and mental stress

Business suffer			
Sr. No	Statements	Frequency	Percent
i.	To great extent	198	95.7
ii.	To some extent	9	4.3
iii.	Total	207	100.0
Exchange of culture affected			
i.	To great extent	198	95.7
ii.	To some extent	9	4.3
iii.	Total	207	100.0
Unemployment increase			
i.	To great extent	192	92.8
ii.	To some extent	15	7.2
iii.	Total	207	100.0
Purchasing power decline			
i.	To great extent	191	92.3
ii.	To some extent	16	7.7
iii.	Total	207	100.0
Mental stress rise			
i.	To great extent	188	90.8
ii.	To some extent	19	9.2
iii.	Total	207	100.0

4.1.9 Tourism affected business:

The above table shows information about the area that is visited by tourists where business suffered, exchange of culture affected, unemployment increased, purchasing power of common people declined and rise in mental stress of the people, 95.7% of the respondents viewed that business of the area is affected by flood, because majority of people were concerned directly and indirectly with tourism and tourism is severely affected by the recent flood, while only 4.3% of the respondents were of the view that flood has less direct affected business of the area.

Tourism is one of the important and almost prominent ways of exchanging of culture among different societies and tries to familiarize the local and alive culture of the area. In the recent flood along with other impacts, one of the bad impact was on the culture exchange, due to damage tourist spots, destroyed tourists hotels, and worse condition of the road, there is a significant decrease in recorded tourist in the area which on one hand affected economy of the area and on the other hand it had affected on culture exchange among other people in and outside of the country. The data shows that 95.7% of the respondents said that flood affected culture exchange very severely and 4.3% of the respondents said that flood affected culture exchange up to some extent.

The above table shows that employment conditions in the district Swat after July 2010 flood which is affected from lack of tourism in the area. The table clearly shows that 92.8% of the respondents were of the view that unemployment increased in the area after the flood because of significant decrease in the tourists and business activities people were in search of jobs, 7.2% of the respondents view that up to some extent flood and no tourism increased the level of unemployment in district Swat.

The above table illustrates that purchasing power of general people decreased after flood because of no or low tourism, about 92.3% of the respondents view that flood affected people purchasing power up to great extent only 7.7% of the respondents view that flood has less affected on purchasing power of general people.

The above table clearly shows that flood affected common people from all sides of daily life, along with material aspect of the human life of the local area flood also affect the non-material aspect such as mental health of the people, due to significance decrease in

tourism in the area. Majority of the respondents about 90.8% were of the view that mental stress of the common people rose on damage created by flood, increased unemployment and decline in the business of the area.

Table # 4.1.10 Distribution of respondent who have gastric problems, i.e. diarrhea, cholera, esophagus inflammation and acidity

Gastric problems			
Sr. No	Statement	Frequency	Percent
i.	Yes	322	81.3
ii.	No	74	18.7
iii.	Total	396	100.0
Diarrhea			
i.	Yes	271	68.4
ii.	No	125	31.6
iii.	Total	396	100.0
Cholera			
i.	Yes	236	59.6
ii.	No	160	40.4
iii.	Total	396	100.0
Esophagus Inflammation			
i.	Yes	225	56.8
ii.	No	171	43.2
iii.	Total	396	100.0
Acidity			
i.	Yes	263	66.4
ii.	No	133	33.6
iii.	Total	396	100.0

4.1.10 Gastric Problems:

The survey conducted in the wake of 1998 floods in Bangladesh which resulted that average 31% of the affected were found ill, however, the ratio is as higher as 40% in the areas exposed to awful flooding (del Ninno et al, 2001). The contaminated drinking water and stagnation of water due to floods cause a number of diseases such as cholera,

malaria, yellow fever, dysentery and respiratory diseases etc. (Watson et al 2007). The stagnation is usually caused by inadequate sewage system and excess of insoluble materials such as plastic bags etc. which was banned by Bangladeshi government in 2002 to avoid blocking of drainage system (Wisner et al, 2004).

The above table shows gastric problems arose in the recent flood. In the table 81.3% of the respondents confronted gastric problems and only 18.7% of the respondents faced no gastric problem in the recent flood. Gastric problems were due to the use and drinking of contaminated flood water as during flood non availability of clean water basically increased gastric problems in the flood affected areas.

Table indicates that diarrhea is one of the most common gastric problem in the flood affected area 68.4% of the respondents have faced the problem of diarrhea during the flood time while 31.6% of the respondents who avoid using and drinking of flood water were saved themselves from the gastric problems.

The above table demonstrates one of the widely spread gastric problems in flood area, which is Cholera faced by the people 59.6% of the respondent face gastric problem of cholera by using contaminated flood water and 40.4% of the respondents did not face such gastric problem of cholera.

Table illustrates another gastric problems faced by the people in July 2010 flood is the inflammation and swelling of esophagus canal, 56.8% of the respondents face severe inflammation in their esophagus while 43.2% of the respondents protected themselves from such type of gastric disease by avoiding the use of flood water.

The above table indicates acidity problems faced by the flood affectees in the recent flood of July 2010 the data clearly shows that 66.4% of the respondents face gastric problems of acidity by using flood contaminated water while 33.4% of the respondents did not face acidity problems in the recent flood.

Table # 4.1.11: Distribution of respondent who have skin problems, ie scabies, acne, erythroderma, dermatitis, and xerosis

Scabies			
i.	Yes	336	84.8
ii.	No	60	15.2
iii.	Total	396	100.0
Acne			
i.	Yes	283	71.5
ii.	No	113	28.5
iii.	Total	396	100.0
Erythroderma			
i.	Yes	273	68.9
ii.	No	123	31.1
iii.	Total	396	100.0
Dermatitis			
i.	Yes	250	63.1
ii.	No	146	36.9
iii.	Total	396	100.0
Xerosis			
i.	Yes	309	78.0
ii.	No	87	22.0
iii.	Total	396	100.0

4.1.11 Skin Infections:

The above table shows that during flood majority of people face skin problems, due to the contaminated flood water. Table shows that 84.8% of the respondents face skin problem in the form of scabies, while only 15.2% of the respondents did not face skin problem in

recent flood. In the past flood people were less affected by flood in respect of skin problems, while in the recent flood they confronted such problems.

Table indicates skin problems related to minor pimple & small pitch among the respondent, 71.5% of the respondents faced minor pimple and small pitch during flood and particularly those people severely affected from this skin infection who use and walk in the flood water and 28.5% of the respondents who avoided moving in the flood were somehow safe from minor pimple and small pitch.

The above table demonstrates one of the skin infections, which is faced by people in the flood i.e. redness of all skin. Among the respondents 68.9% faced redness of their skin in the flood while only 31.1% of the respondents did not face such problem.

Table also shows another skin problem faced by the people in July 2010 flood, is the inflammation and swelling of skin, 63.1% of the respondents faced severe inflammation in their whole body and also some time the problems of irritation in their skin while 36.9% of the respondents get themselves protected from such type of skin infection by avoiding the flood water and not moveing unnecessarily.

The above table indicates one of the most important skin problems which hit majority of the respondents in the flood, i.e. xerosis. It is a form skin of infection in which skin of whole body become dry and looks like white powder spread over the upper layer of the skin. Table shows that 78% of the respondents face problems of dry skin during flood while only 22% of the respondents did not face dry and dehydrated skin in the recent flood.

The data shows that flood affected people faced skin infection in the July 2010 flood, while before this recent flood they face did not or less such skin problems. Among skin infections, most of the people faced scabies and dry and dehydrated skin then other problems. Those people who have more skin problems were frequently and unnecessarily moving in the flood water.

Table # 4.1.12 Distribution of respondents who face eye infection and fractures in flood

Eye inflammation			
Sr. No	Statement	Frequency	Percent
i.	Yes	214	54.0
ii.	No	182	46.0
iii.	Total	396	100.0
Eye redness			
i.	Yes	325	82.1
ii.	No	71	17.9
iii.	Total	396	100.0
Puffy eyes			
i.	Yes	313	79.0
ii.	No	83	21.0
iii.	Total	396	100.0
Type of injury			
i.	Wound	299	75.5
ii.	Fracture	97	24.5
iii.	Total	396	100.0
Simple Fracture			
i.	No	359	90.7
ii.	Yes	37	9.3
iii.	Total	396	100.0
Compound Fracture			
i.	No	389	98.2
ii.	Yes	7	1.8
iii.	Total	396	100.0
Spiral Fracture			
i.	No	338	85.4
ii.	Yes	58	14.6
iii.	Total	396	100.0

4.1.12 Eye Infections and fractures:

The above table shows data regarding eye infections such as eye inflammation, eye redness and puffy eyes, and type of injuries in the form of wounds and fractures such as simple, compound or complex and spiral fractures faced by the persons in recent July 2010 flood the table shows that 54% of the respondents faced eye infection in the form of eye inflammation and swelling in their eyes using contaminated flood water while 46% of the respondents have eye infection in the form of eye inflammation.

Table indicates eye redness as one of the most common eye infection in the flood affected area 82.1% of the respondents have eye infection in the form of eye redness by using and moving in flood water while only 17.9% of the respondents have no eye redness infection.

The above table demonstrates that majority of the respondents have confronted an eye infected called puffy eyes in which the affected person's eyelid get swollen and inflate entire eye. Table shows that 79% of the respondent faced eye infection in form of the swelling in the eye, while only 21% of the respondents did not face eye swelling.

Table illustrates types of injuries faced by the flood affected people in the target area. Major cause of the injuries in the area was flood but worry, rush and panic also played major role in increasing injuries in affected people. Among 396 respondent, 75.5% faced injuries in the form of some deep skin wound and majority of the respondents have minor wounds, but due to contaminated flood water these wounds become serious, along with the major and minor wound 24.5% of the respondents have bone fractures due to collapse of roof.

The above table indicates affected people who have also faced some kind of fractures during flood either directly or indirectly, although the number of the fractures is not that much high, 90.7% of the respondents were not affected from the flood in respect of the simple fracture where only one bone or some part of the bone cracked and 9.3% of the respondents cracked their bone in one part of their bone and majority of the respondent suffered from the leg bone fracture.

The table shows that only 1.8% of the respondents have compound fracture, in which one bone is fractured at more than one place while 98.2% have no compound fracture during flood. The data shows that majority of the respondents were safe from the compound fractures in the flood.

The above table indicates that among fracture of all kinds in the target area of flood affected people, spiral fracture is in high number. People suffer from spiral fracture along with other fracture and particularly with the simple or Greenwich fracture. The data shows that among 396 respondents 14.6% were suffering from spiral fracture while 85.4% had no such spiral fracture.

Table # 4.1.13 Distribution of respondents by land possession, type of land, type of irrigation system, financial loss from crops, fruits and animals

Land Ownership			
Sr. No	Statement	Frequency	Percent
i.	Yes	72	18.2
ii.	No	324	81.8
iii.	Total	396	100.0
Type of land			
i.	Barren	19	26.4
ii.	Cultivated	53	73.6
iii.	Total	72	100.0
Type Of Irrigation System			
i.	Rain pad	12	22.6
ii.	Canal	14	26.4
iii.	Tube well	17	32.1
iv.	Wells	10	18.9
v.	Total	53	100.0
Financial Loss From Crops			
i.	Up to 200000	8	22.2
ii.	200001 to 250000	11	30.6
iii.	250001 to 300000	11	30.6
iv.	Above 300000	6	16.6
v.	Total	36	100.0
Financial Loss From Fruit Orchards			
i.	Up to 200000	6	26
ii.	200001 to 300000	9	39.1
iii.	Above 300000	8	34.9
iv.	Total	23	100.0
Financial Loss From Livestock			
i.	Up to 3000	23	31.9
ii.	3001 to 20000	15	20.9
iii.	20001 to 600000	17	23.6
iv.	Above 600000	17	23.6
v.	Total	72	100.0

4.1.13 Agricultural Land Damages:

The above table is about land ownership, type of land, irrigation system, financial loss from crops, fruits orchards and animal faced by the respondents in the flood affected urban area, where majority of the people were attached with other professions than

farming and it shows that only 18.2% of the respondents have land while 81.8% of the respondents have no agriculture land in the area. The study is carried out in the urban area of the flood affected districts.

The above table shows that shows that only 26.4% of the land owner respondents have barren land while 73.4% land owner respondents have cultivated land in the flood affected area, from the table 324 responses were excluded as they have no land.

The table is about the type of irrigation system in the area adopted for cultivating their land. Table shows that 22.6% of the land owner respondents who have cultivated land use rain pad for the irrigation purpose, 26.4% of the land owner respondents who have cultivated land use canal system to irrigate land their land 32.1% of the land owner respondent who have cultivated land use tube wells for irrigating their land while 18.9% of the land owner respondents use wells for irrigation purpose over their cultivated land.

The table is about the financial loss from crops such as wheat, sugarcane, maize, cereal crops and vegetables. Table shows that 22.2% of the land owner respondents who have cultivated land have financial loss up to 200000 rupees from different crops in the flood, 30.6% of the land owner respondents who have cultivated land bear financial loss ranging from 200001 to 250000 rupees from different crops, 30.6% of the land owner respondents who have cultivated land bear financial loss between 250001 to 300000 rupees from crops, while 16.6% of the respondents have financial loss above than 300000 Rs from crops during the recent flood.

The table is about the financial loss from fruit orchards such as apples apricot, persimmon, walnut and plum. The table indicates that 26% of the land owner respondents

who have fruit orchard over their land bear financial loss up to 200000 rupees in the current flood of July 2010, 39.1% of the land owner respondents who had fruit orchard over their land financially suffered between 200000 to 300000 rupees in the recent flood, while 26% of the land owner respondents who had fruit orchards financially suffered above 300000 rupees in the flood. The data shows that those who had fruits orchards somewhere financially suffered from the flood directly or indirectly.

The table is about the financial loss from the livestock in the form of loss of goats, sheep, cows, bulls, buffalos, and poultry. The table shows that 31.9% of the animal owner respondents have financial loss in poultry up to 3000 rupees in the recent flood 20.9% of the animal owner respondents have financial loss in the range of 3000 to 20000 rupees during the flood, 23.6% of the animal owner respondents have financial loss from different livestock ranging from 20001 to 60000 rupees in the recent flood of July 2010, while 13.6% of the animal owner respondents financially suffered from animal loss were above 60000 rupees in the flood. The data shows financial loss from animals, crops and fruit orchards is greater than any prior flood in the region.

Table # 4.1.14 Distribution of respondents' area medical centre damage such as clinics, Laboratories, stuff chairs, tables, stature, and lab equipments

Clinics, offices			
Sr. No	Statements	Frequency	Percent
i.	To Great Extent	5	35.7
ii.	To Some Extent	6	42.9
iii.	Not At All	3	21.4
iv.	Total	14	100.0
Lab equipments			
i.	Not Available	4	28.6
ii.	To Great Extent	4	28.6
iii.	To Some Extent	4	28.6
iv.	Not At All	2	14.3
v.	Total	14	100.0
Stuff Chairs, tables, patient bed			
i.	To Great Extent	5	35.7
ii.	To Some Extent	6	42.9
iii.	Not At All	3	21.4
iv.	Total	14	100.0
Stuff Attendance, Admit/Discharge, Stock Register			
i.	To Great Extent	6	42.9
ii.	To Some Extent	4	28.6
iii.	Not At All	4	28.6
iv.	Total	14	100.0
Medicines affected			
i.	To Great Extent	6	42.9
ii.	To Some Extent	6	42.9
iii.	Not At All	2	14.3
iv.	Total	14	100.0

4.1.14 Medical Center Damages:

The above table shows 35.7% of the medical centre representatives told that the recent flood of July 2010 render great harm to the clinics, offices and hospital building, 42.9% of the medical centre respondents told that the recent flood gave less harm to the clinics, offices and hospital building, while 21.4% of the medical centre respondents responded

that the recent flood of July 2010 render no harm to the clinics, offices and hospital building of the medical centre.

The table indicates the Laboratories and its equipment's condition in the basic health units and medical centers in the flood affected area, 28.6% of the respondent's area medical centre have no laboratories and apparatus, 28.6% of the respondent's area medical centers were greatly affected from the flood, 28.6% of the respondent's area medical centre were less affected while only 14.3% of the respondent's area medical centre were not affected from recent flood.

The above table shows 35.7% of the stuff chairs, office tables and patient beds were severely affected by the flood water in the medical centre, 42.9% of the stuff chairs, office tables and patient beds were less affected by the flood water in the medical centre, while 21.4% of the stuff chairs, office tables and patient beds were not affected by the flood water in the medical centre. Medical centers and basic health units were constructed in a relatively safe area but due to high level of the flood these materials were damage.

The above table illustrates that 42.9% of the medical centre representatives were of the view that staff attendance registers, admit and discharge registers and stock registers were very badly affected in the flood, 28.6% of the medical centre representatives were of the view that staff attendance registers, admit and discharge registers and stock registers were less affected from the flood, while 28.6% of the medical centre representatives were of the view that staff attendance registers, admit and discharge registers and stock registers were not affected in the flood. These registers were very much important for smooth working of the medical centre.

The above table explains that 42.9% of the medical centre officials were of the view that pharmacy, medicines and surgical equipment were severely affected from the recent flood, and same number of the medical centre officials were of the view that pharmacy, medicines and surgical equipment were less affected from the recent flood, while only 14.3% of the medical centre officials were of the view that July 2010 flood render no harm to pharmacy, medicines and surgical equipment. In the flood the local hospitals and medical centre and basic health units were very much affected from the flood by which people confronted terrible situation regarding health facilities.

Table # 4.1.15 Distribution of respondents' area schools damage in the flood

School offices, classroom, stuff rooms, boundary wall			
Sr. No	Statements	Frequency	Percent
i.	To great extent	6	26.1
ii.	To some extent	14	60.9
iii.	Not at all	3	13.0
iv.	Total	23	100.0
Labs apparatus			
i.	Not applicable	13	56.5
ii.	To great extent	2	8.7
iii.	To some extent	5	21.7
iv.	Not at all	3	13.0
v.	Total	23	100.0
Library books			
i.	To great extent	5	21.7
ii.	To some extent	12	52.2
iii.	Not at all	6	26.1
iv.	Total	23	100.0
Tables, chairs, bench, desk			
i.	To great extent	7	30.4
ii.	To some extent	12	52.2
iii.	Not at all	4	17.4
iv.	Total	23	100.0
Stock, Admission, Exam, Fund, Attendance Register			
i.	To great extent	8	34.8
ii.	To some extent	9	39.1
iii.	Not at all	6	26.1
iv.	Total	23	100.0
Sports Kits			
i.	To great extent	7	30.4
ii.	To some extent	9	39.1
iii.	Not at all	7	30.4
iv.	Total	23	100.0

4.1.15 School Damages:

The above table shows information about the school in the flood affected area and damages caused in school building and school property such as offices, classrooms, stuff rooms, boundary wall, furniture such as staff chairs, tables, student benches and desks, library books, laboratories apparatus, sports kits, school record registers such as Stock,

Admission, Exam, Fund, Attendance Registers. The table shows that 26.1% of the school representatives told that in the recent flood of July 2010 render great harm to the building of the school in the form offices, classrooms, stuff rooms, boundary wall, washrooms damage, 60.9% of the school representatives were of the view that the recent flood render harm up to some extent to the building of the school in the form offices, classrooms, stuff rooms, boundary wall, washrooms damage, and hospital building, 13% of the school representatives informed that the flood made no destruction to the building of the school in the form offices, classrooms, stuff rooms, boundary wall, washrooms damage. Data shows that flood badly affected school building and property, consequently affecting the students' performance and study at large.

The table shows that 56.5% of the schools have laboratories in general and no laboratories apparatus in particular, primary schools have no laboratories apparatus but some of the high schools also have no laboratories apparatus, 8.7% of the school representatives impart that the recent flood July 2010 render great harm to the laboratories apparatus and equipments, 21.7% of the school officials were of the view that flood damaged laboratories apparatus up to some extent while 13% of the school representatives convey the idea that flood damaged school laboratories apparatus.

The above table indicates that 21.7% of the school official were of the view that school library books were damaged from flood up to great extent, 52.2% of the school official were of the view that school library books were damaged up to some extent, while 26.1% of the school official were of the view that school library books were not damaged from flood. The data clearly shows that library books were very much damaged from the recent flood.

The above table illustrates that one of the great destruction caused by the flood in school is the damage of furniture such as staff chairs, tables and students bench and desks, 30.4% of the school representatives were of the view that staff chairs, tables and students bench and desks were damaged in flood up to great extent, 52.2% of the school representatives told that staff chairs, tables and students bench and desks were damaged in flood up to some extent, while 17.4% of the school officials impart the idea that stuff chairs, tables and students bench and desks were not damaged in flood. The data shows that furniture of the school was damaged from the flood and now the working conditions are worse in the school for both students and teachers.

In schools registers were the most important documents and all the task of school were running over it. The above table illustrates damages of stock, admission, examination, fund, and attendance registers in which 34.8% of the school representatives were of the view that flood damaged stock, admission, examination, fund, and attendance registers up to great extent, 39.1% of the school representatives told that stock, admission, examination, fund, and attendance registers were damaged in flood up to some extent, while 26.1% of the school officials impart the idea that stock, admission, examination, fund, and attendance registers were not damaged in flood.

The above table explains that 30.4% of the school officials holds of the view that sport kits in the school were completely damaged in the flood, 39.1% of the school representatives were of the view that sport kits in the school were partially damaged in the flood, while 30.4% of the school officials were of the view that sport kits in the school were not damaged in the flood.

Table # 4.1.16 Distribution of respondents who school going children affect from flood

School remain close			
Sr. No	Statement	Frequency	Percent
i.	Less than Three Months	71	21
ii.	Three Months	191	56.3
iii.	Above Three Months	77	22.7
iv.	Total	339*	100.0
Your children shifted to other schools			
i.	Yes	283	83.5
ii.	No	56	16.5
iii.	Total	339*	100.0
Students drop out			
i.	Yes	283	83.5
ii.	No	56	16.5
iii.	Total	339*	100.0
School were occupied by the flood affectees			
i.	To Great Extent	221	78.1
ii.	To Some Extent	32	11.3
iii.	Not At All	30	10.6
iv.	Total	283**	100.0
Difficult for children to adjust in new school			
i.	To Great Extent	205	72.4
ii.	To Some Extent	54	19.1
iii.	Not At All	24	8.5
iv.	Total	283**	100.0

*In the above table total responses were 339, as 57 respondents have no school going children

**The table show total responses 283, as 57 have no school going children and 56 children not shifted

4.1.16 Children Academic Performance:

The above table shows the effects of flood on the school going children of the area, such as schools were closed, children shifted to other schools, difficulty in adjustment in new schools and flood affected people occupied school for long time. The table shows that 21% of the schools remain closed for less than three months in the flood, 56.3% schools remain closed for three months in the flood, and 22.7% of the schools remain closed for

above three months. The data clearly shows that majority of the schools remained closed for three and above three months and children's academic session was suffered which ultimately affected children study and performance in exams.

The table indicates 83.5% of the respondents shifted their school going children to other school temporarily and some of them shifted permanently, 16.5% of the respondents did not shift their school going children to other schools as their school was closed for less duration and children rejoined their school immediately after the flood.

The above table shows the responses of respondents about the drop outs of the school student, 83.5% of the respondents view that school dropout increased during flood as they shifted their children to other schools, 16.5% of the respondents said that flood has no effect on dropout from the school.

The above table illustrates that 78.1% of the respondents' school going children's schools were occupied by the flood affectees and government and non-government organizations to arrange camps for the affected people, 11.3% of the respondents' school going children's schools were partially occupied by the flood affectees and governmental and nongovernmental organization for the arrangements in the emergency time, 10.1% of the respondent's school going children schools were not occupied by the flood affected people. The data shows that majority of the relief programmes initiated by government and non-government organizations were in schools and colleges which affected the academic session of the students.

The above table explains that 72.4% of the respondents' school going children had great problems and difficulties regarding adjustment in the new school environment,

19.1% of the respondents' school going children had relatively less adjustment problems in the new school environment, while 24% of the respondents' school going children had faced no problems in adjustment in the new school environment. The data shows that majority of the students had great problems of adjustment in new surrounding which highly affected their performance in studies.

Table # 4.1.17 Distribution of respondent who children education suffering and performance during flood i.e. school books, teacher non availability, performance, and children interest

Children school books were lost			
Sr. No	Statements	Frequency	Percent
i.	To Great Extent	209	61.7
ii.	To Some Extent	92	27.1
iii.	Not At All	38	11.2
iv.	Total	339	100.0
Teachers were not coming in schools			
i.	To Great Extent	212	62.5
ii.	To Some Extent	78	23
iii.	Not At All	49	14.5
iv.	Total	339	100.0
Academic session was suffered			
i.	To Great Extent	216	63.7
ii.	To Some Extent	103	30.4
iii.	Not At All	20	5.9
iv.	Total	339	100.0
Performance in exam was not good			
i.	To Great Extent	215	63.4
ii.	To Some Extent	97	28.6
iii.	Not At All	27	8
iv.	Total	339	100.0
Children take less interest			
i.	To Great Extent	188	55.5
ii.	To Some Extent	87	25.7
iii.	Not At All	64	18.8
iv.	Total	339	100.0

4.1.17 Academic Process Suffer:

A similar type of study conducted by Gregorio, (2012) on children academic performance after flood, according to his study children end their educational activities due to the loss either of their parents or both of them and other family members. They also end up their schooling due to cutting off the social support extended to them by their parents or family members.

The above table shows how flood affected overall performance of children in their academic life such as they lost their school books and note books in the flood, teachers do not come in school, academic session suffered and exams were rescheduled, it is very much clear from the above data that 61.7% of the respondents' school going children completely lost their books and note book during the emergency of the flood, 27.1% of the respondents' school going children both male and female lost their books and note books up to some extent during the emergency of the flood, while 11.2% of the respondents' school going children did not lose their books and note book during the emergency of the flood. That data clearly shows that majority of the students have not lost their school books and note books.

The table indicates non availability of teachers in the flood affected schools, 62.5% of the respondents' view that teachers were not available in their children's school in the wake of flood, 23% of the respondents' view that not all teachers were available but some of them were there in children's school at the time of flood, while 14.5% of the respondents' view that teachers were available in their children's school at the wake of

flood. The data shows that majority of the employed teachers were absent during and after the flood nevertheless teachers were also the flood affectees.

The above table shows suffering of children's academic session in the recent flood. Table shows that 63.7% of the respondents said that the academic session of the school going children greatly suffered from flood, 30.4% of the respondents said that the academic session of the school going children suffered but much were restored quickly after flood, 5.9% of the respondents were of the view that the academic session of the school going children did not suffer by flood.

The above table illustrates that 63.4% of the respondents' school going children's performance in exam was very much affected from flood, 28.6% of the respondents' school going children performance in exam was affected from flood but to some extent, while only 8% of the respondents' school going children performance in exam is not affected from flood. That data categorically explain that flood affected the educational performance in the form of exam due to non-availability of school books and note books, teachers and reschedule of their academic session.

The above table explains that 55.5% of the respondents' school going children take no interest in the academic work after the recent flood, 25.7% of the respondents' school going children take less interest in their academic work after the recent flood, and 18.8% of the respondents' school going children were not affected by the flood in the form of their interest in study and performance, because young children were not very much aware about the detriments of the flood in the home and school.

Table # 4.1.18 Distribution of respondents by the their psychological suffering i.e. overreaction, sadness, no interest in family affairs and short temperedness

People over reacted in normal situations			
Sr. No	Statements	Frequency	Percent
i.	Strongly Agree	135	34.1
ii.	Agree	106	26.8
iii.	Undecided	14	3.5
iv.	Disagree	141	35.6
v.	Total	396	100.0
Affectees remain sad and gloomy			
i.	Strongly Agree	65	16.4
ii.	Agree	182	46.0
iii.	Undecided	19	4.8
iv.	Disagree	44	11.1
v.	Strongly Disagree	86	21.7
vi.	Total	396	100.0
Taking no interest in family affairs			
i.	Strongly Agree	35	8.8
ii.	Agree	172	43.4
iii.	Undecided	85	21.5
iv.	Disagree	63	15.9
v.	Strongly Disagree	41	10.4
vi.	Total	396	100.0
Affectees become short tempered			
i.	Strongly Agree	57	14.4
ii.	Agree	176	44.4
iii.	Undecided	22	5.6
iv.	Disagree	102	25.8
v.	Strongly Disagree	39	9.8
vi.	Total	396	100.0

4.1.18 Psychological Problems:

The above table shows the psychological suffering of the respondents created by the flood aftermath such as, the affected people overreacted in normal situation, remain sad and gloomy, take no interest in family affairs, become short tempered and take no interest

in their routine work. The table shows that 34.1% of the respondents were strongly agreed that people showing over reaction in normal situation after the flood, 26.8% of the respondents were agreed that common people showing over reaction in normal situation after the flood, 3.5 of the respondents did not decide whether people overreact or not after flood while 35.6% of the respondents did not agree that people overreact in normal situation in wake of flood.

The table shows effects of the flood on the people's behaviors and attitudes in their normal detail lives, 16.4% of the respondents strongly agreed that affected people remain sad and gloomy after the flood, 46% of the respondents agreed that affected people remain sad and gloomy aftermath of flood, 4.8% of the respondents did not yet decide that whether flood affect the people's behaviours and attitudes in their normal detail life, 11.1% of the respondents were disagreed with the statement that affected people remain sad and gloomy after the flood, while 21.7% of the respondents were strongly disagree with the statement that affected people remain sad and gloomy after the flood. The data shows that majority of the people remain sad and gloomy after flood as all their assets were badly affected from flood.

The above table describes flood affectees taking no interest in the routine and family affairs, 8.8% of the respondents strongly agreed that affected people take no interest in their family routine affairs and life is boring for them after the recent flood, 43.4% of the respondents were agree that affected people take no interest in their family routine affairs and life is meaningless for them after flood, 21.5% of the respondents had no view about people's interest level in their family affairs, 15.9% of the respondents disagreed that affected people take no interest in their family routine affairs and life was

dull for them after flood, 10.4% of the respondents were strongly disagree that affected people take no interest in their family routine affairs. Those who disagree and strongly disagree were less affected from flood as less than one foot of water enters in their homes.

The above table describes that affectees become short tempered after of flood, 14.4% of the respondents strongly agreed that affected people become short tempered in the wake of the flood, 44.4% of the respondents were agree that affected people become short tempered after the flood, 5.6% of the respondents did not decide that affected people become short tempered in the wake of the flood, 25.8% of the respondents were disagree that affected people become short tempered after the flood. 9.8% of the respondents strongly disagree with the statement that affected people become short tempered after the flood. The data shows the majority of the people in the flood affected area were short tempered during and after the flood.

Table # 4.1.19 Distribution of respondents by the their psychological suffering i.e. fearful from natural disasters, anxiety in rain and no interest in routine work

People remain fearful about natural disasters			
Sr. No	Statement	Frequency	Percent
i.	Strongly Agree	132	33.3
ii.	Agree	188	47.5
iii.	Undecided	52	13.1
iv.	Disagree	17	4.3
v.	Strongly Disagree	7	1.8
vi.	Total	396	100.0
Feel anxiety in rain			
i.	Strongly Agree	69	17.4
ii.	Agree	195	49.2
iii.	Undecided	6	1.5
iv.	Disagree	103	26.0
v.	Strongly Disagree	23	5.8
vi.	Total	396	100.0
Taking no interest in routine work			
i.	Strongly Agree	63	15.9
ii.	Agree	174	43.9
iii.	Undecided	21	5.3
iv.	Disagree	89	22.5
v.	Strongly Disagree	49	12.4
vi.	Total	396	100.0

4.1.19 Mental Health Problems:

The above table shows that 33.3% of the respondents strongly agreed that people remain fearful about natural disasters after July 2010 flood, 47.5% of the respondents agreed that people remain fearful about natural disasters after the recent flood, 13.1% of the respondents were of undecided view that people remain fearful about natural disasters 4.3% of the respondents strongly agreed that people remain fearful about natural disasters, and only 1.8% of the respondents disagreed that people remain fearful about

natural disasters because of the recent flood. That data shows that majority of the people in the area were fearful from the natural disasters after the latest flood.

The table shows one of the most important and commonly occurring psychological problems faced by the people in the area after the flood, which is anxiety in rain and fear from rain. The table explains that 17.4% of the respondents strongly agreed that now affected people feel anxiety and worry in rain after the flood, 49.2% of the respondents agreed that affected people became nervous and worried in raining after the flood, 1.5% of the respondents had no idea that the statement that whether feel anxiety in rain or not, while negligible number 26% of the respondents disagreed that now affected people feel anxiety and worry in rain after the flood, while 5.8% of the respondents were strongly opposed that flood affected people feel anxiety and worry in rain after the flood. The data shows that majority of the people had apprehension about the rain and nervousness in the raining.

The above table describes that affectees take no interest in their routine work in daily life, 15.9% of the respondents strongly agreed that affected people take no interest in their normal affairs and life is boring for them after flood, 43.9% of the respondents agreed that affected people take no interest in their regular and everyday dealings and life is meaningless for them after flood, 5.3% of the respondents have no view about people's interest level in their normal works, 22.5% of the respondents disagreed that affected people take no interest in their routine affairs, 12.4% of the respondents strongly disagreed that affected people take no interest in their family routine affairs. The data shows that flood have impacts on the daily routine of the common people and alter their behaviors and attitudes up to great extent.

Table # 4.1.20: Distribution of respondents by time of evacuation, destination after evacuation, and changing camps

Water in home in time of evacuation			
Sr. No	Statements	Frequency	Percent
i.	less than 1 ft	35	8.8
ii.	2ft	73	18.4
iii.	3ft	209	52.8
iv.	4ft	48	12.1
v.	above 4ft	31	7.8
vi.	Total	396	100.0
Take time of evacuation			
i.	Immediately	28	7.1
ii.	within 24 hours	310	78.3
iii.	within 48 hours	33	8.3
iv.	within 72 hours	25	6.3
v.	Total	396	100.0
First destination from home			
i.	relatives house	270	68.2
ii.	friend house	56	14.1
iii.	school/college ground	70	17.7
iv.	Total	396	100.0
Keeping changing camp			
i.	Yes	38	9.6
ii.	No	358	90.4
iii.	Total	396	100.0
Frequency of changing camps			
i.	One	17	44.7
ii.	Two	14	36.8
iii.	Three	7	18.5
iv.	Total	38	100.0

4.1.20 Evacuation from Home:

The above table shows water in home in time of evacuation, time taken in evacuation from home when flood approach the area, first destination from home, and during in

camp. The table shows that 8.8% of the respondents have less than one foot water in their homes, 18.4% of the respondents had two feet high level of water in their homes at a time of evacuation, 52.8% of the respondents had three feet water in their homes at the time of evacuate, 12.8% of the respondents had four feet water in their homes at the time of evacuation 7.8% of the respondents have above four feet high level of water in their home at the time of evacuation. The data shows that in the July 2010 flood people of the area faced high level of flood which is not experienced before this.

The above table explains respondents time of evacuation from their home during flood, 7.1% of the respondents immediately evacuated their homes as the flood approached their area, 78.3% of the respondents evacuated their homes within 24 hours as the flood approached their area, 8.3% of the respondents evacuated their homes within 48 hours as the flood approached their area, 6.3% of the respondents evacuated from homes within 72 hours as the flood approached their area. The data shows that majority of the respondents evacuated from their home within 24 hours through different means.

The above table shows first destination of the respondents after evacuation from their home 68.2% of the respondents first went to their relatives house after evacuation from their home when flood approach the area, 14.1% of the respondents first went to their friend house, 17.7% of the respondents first went to the nearest school and college ground house after evacuation. The data shows that people after evacuation from homes went to their relative and friend homes which were safe from flood and after some time camps were framed for facilitation of the internally displaced persons.

The above table illustrates condition of the internally displaced persons in the camps, only 9.6% of the respondents constantly changed camp to camps due to some problems while majority of them about 90.6% of the respondents did not change their camps to other places.

The above table shows how frequently internally displaced people change their camps, 44.7% of the respondents change from their camps once in displacement, 36.8% of the respondents change their camps twice in total displacement while 18.5% of the respondents change camps trice in their total displacement.

Table # 4.1.21 Distribution of respondents by displacement duration, population of refuge place, organization of registration and family member registration as IDP

Total displacement duration			
Sr. No	Statements	Frequency	Percent
i.	less than one	50	12.6
ii.	1-3	57	14.4
iii.	4-6	206	52.0
iv.	7-10	58	14.6
v.	above 10	25	6.3
People in refuge place			
i.	101-500	36	9.1
ii.	501-1000	63	15.9
iii.	1001-2000	255	64.4
iv.	Above 2000	42	10.6
v.	Total	396	100.0
Organization you were register as IDP			
i.	Not Registered	68	17.2
ii.	Social welfare	198	50.0
iii.	International organization	44	11.1
iv.	Army	29	7.3
v.	National organization	57	14.4
vi.	Total	396	100.0
Family member registration			
i.	Not registered	66	16.7
ii.	Up to 5	94	23.7
iii.	6-9	199	50.3
iv.	10+	37	9.3
v.	Total	396	100.0
Reason for non-registration			
i.	Registered	331	83.6
ii.	Lack of awareness	22	5.6
iii.	Access to registration office	14	3.5
iv.	Missed registration deadline	11	2.8
v.	Problems faced by women	15	3.8
vi.	Not interested	3	.8
vii.	Total	396	100.0

4.1.21 Internal Displacement:

The above table shows details of internal displacement during July 2010 flood such as total displacement duration, total population of refuge place, organization in which IDPs

registered, family member registration and reasons for not to be registered as IDP. The table shows that 12.6% of the respondents had internal displacement for less than one month, 14.4% of the respondents had internal displacement in the camp for one to three months, 52% of the respondents had internal displacement in the refugee camp for four to six months, 14.6% of the respondents had internally displaced for seven to ten months. The data show that majority of the people lived in the refugee place as internally displaced persons for the time of four to six month.

The above table shows the total population of the refuge place, 9.1% of the internally displaced respondents told that total population of their camp was up to 500 persons camping both male and female, 15.9% of the internally displaced respondents informed that total population of the refuge place was ranging from 501 to 1000 people, 64.4% of the internally displaced respondents disclosed that total population of their camp was in the range of 1001 to 2000 person, while 10.6% of the internally displaced respondents were of the view that total population of their refuge place was up to 2000. The data shows that high numbers of people were there in the refuge place and people faced various problems in that place.

The above table describes that 17.2% of the internally displaced respondents did not register as Internally displaced person in any organization, 50% of the internally displaced respondents were registered as Internally displaced person with department of social welfare, 11.1% of the internally displaced respondents were registered as Internally displaced person with international nongovernmental organization, 7.3% of the internally displaced respondents were registered as Internally displaced person with army, while 14.4% of the internally displaced respondents were register as Internally displaced person

with national nongovernmental organization. The data shows that majority of the internally displaced person were registered with the government department of social welfare.

The above table illustrates that 16.7% of the respondents have no family member registered as internally displaced person with an organization, 23.7% of the respondents have up to five family members registered as internally displaced person, 50.3% of the respondents have family members registered as internally displaced person in range of six to nine, 9.3% of the respondents have ten and above family members registered as internally displaced person with different governmental and nongovernmental organizations.

The above table explains the reason behind the non-registration of the internally displaced persons and their family. The table shows that 83.6% of the internally displaced respondents were registered with different organizations, 5.6% of the internally displaced respondents were not registered because of lack of awareness about registration process, 3.5% of the internally displaced respondents were not registered because problems in access to registration office, 2.8% of the internally displaced respondents were not registered because of last date of registration was over, 3.8% of the respondents were not registered as internally displaced person for the reason of problems faced by women while .8% of the internally displaced respondents were not interested in getting themselves registered as IDP. The data shows that some of the respondents were not registered as internally displaced persons and most of non-registered persons were women and old age people who faced a lot of problems in registration process and procedure.

Table # 4.1.22 Distribution of the respondents who have received and used financial assistance

Financial assistance			
Sr. No	Formal Education	Frequency	Percent
i.	Yes	200	50.5
ii.	No	196	49.5
iii.	Total	396	100.0
Financial assistance in Rs			
i.	Up to 20000	63	31.5
ii.	20001-30000	91	45.5
iii.	Above 30000	46	23
iv.	Total	200	100.0
Mean = 1.31E4 Median = .00 Std. Dev. = 1.432E4 Variance = 2.050E8			
Financial assistance used			
i.	Establish own business	32	16
ii.	Expand already existing	18	9
iii.	Construction of house	10	5
iv.	Housing repairs	61	30.5
v.	Purchase of other assets	29	14.5
vi.	Cover other debt	9	4.5
vii.	Cover daily expenditures	27	13.5
viii.	Cover medical expenditures	14	7
ix.	Total	200*	100.0

*Respondents who received financial assistance

4.1.22 Financial Assistance:

The above table shows financial assistance given to the flood affected people in two districts, amount of financial assistance and the use of this assistance in different heads. The table shows that 50.5% of the respondents have received financial assistance from government, nongovernmental organization and private sources, while 49.5% of the respondents were not financially supported by any of the sources. The data shows that ha

half of the affected people have inward financial assistance and half of them were still waiting for government and nongovernment financial assistance.

Table indicates that how much of financial assistance received by the flood affectees in the area, 31.5% of the respondents received up to 20000 rupees as financial assistance from different sources, 45.5% of the respondents received in range of 20001 to 30000 rupees financial assistance from different sources, while 23% of the respondents received above 30000 rupees financial assistance from different sources. People of both districts were very much financially affected from flood but government and nongovernmental organization did not render that much financial support to them.

The above table demonstrates that 16% of the respondents used financial support in establishing their own small scale business in local area, 9% of the respondents invested financial assistance in already existing business in order to expand them, 30.5% of the respondents used financial support in repairing their house that were damage in the flood, 5% of the respondents used financial support in constructing their houses, 29% of the respondents used their financial assistance in purchasing home utensils, 4.5% of the respondents used financial support in covering their debts already received from others, 13.5% of the respondents used financial assistance in their daily expenditures, as the flood affected their business and now they were jobless, 7% of the respondents use financial support in covering their medical expenditures, as in the flood they face some health related problems. The data clearly shows that majority of the respondents used financial support in repairing their homes, and purchasing home utensils which were badly affected in the flood.

Table # 4.1.23 Distribution of respondents by provision of educational facilities

School availability			
Sr.No	Statement	Frequency	Percent
i.	To great extent	36	9.1
ii.	To some extent	238	60.1
iii.	Not at all	122	30.8
iv.	Total	396	100.0
Books were provided free of cost			
i.	To great extent	44	11.1
ii.	To some extent	311	78.5
iii.	Not at all	41	10.4
iv.	Total	396	100.0
Quality teaching staff was available			
i.	To great extent	17	4.3
ii.	To some extent	273	68.9
iii.	Not at all	106	26.8
iv.	Total	396	100.0

4.1.23 Educational Facilities:

Flood affected overall performance and study of the children as they lost their school books and note books in the flood. Teachers not coming in school, academic session suffered, exams were rescheduled and affected people occupied school building. In camps different governmental and nongovernmental organizations gave educational facilities to the flood affected people. The above table shows, school availability in the camps, free of cost books and quality teaching staff was available or not in the refuge place, 9.1% of the respondents were of the view that camp schools were available and children were going there 60.1% of the respondents were of the view that camp schools were available up to some extent, not to all while 30.8% of the respondents' children were deprived of school in the refuge place. The data shows that majority of the camps had no proper schools where children would learn and study.

Children lost their books and note books during the emergency of the flood either completely or partially, and without books and note books students were not like students, books and note books were provided to the students free of cost from different organizations. The table indicates that 11.1% of the respondents children have received books and note books free of cost by different organizations and even private people also supported a lot in this regard, 78.5% of the respondents were of the view that majority of the school going children who lost their books and note book in the flood were facilitated by free of cost books and note books while only 10.4% of the respondents were of the view that students were not facilitated in the form of free books and note books.

Non availability of teachers in the flood affected schools was one of the greatest problem and even government and nongovernment organization tried their best to provide camp schools to the students only to avoid their academic session to suffer. The table shows that 4.3% of the respondents were of the view that qualified teachers were provided by the organizations 68.9% of the respondents were of the view that up to some extent qualified teaching staff was available in the camps to teach the children while 26.8% of the respondents' school going children had no teachers in the camp schools.

Table # 4.1.24 Distribution of respondents by the provision of medical facilities

Medical Centers were established			
Sr. No	Formal Education	Frequency	Percent
i.	To great extent	40	10.1
ii.	To some extent	159	40.2
iii.	Not at all	197	49.7
iv.	Total	396	100.0
Doctors were available in the centers			
i.	To great extent	31	7.8
ii.	To some extent	140	35.4
iii.	Not at all	225	56.8
iv.	Total	396	100.0
Adequate paramedical stuff			
i.	To great extent	32	8.1
ii.	To some extent	171	43.2
iii.	Not at all	193	48.7
iv.	Total	396	100.0
Maternity services was available			
i.	To great extent	37	9.3
ii.	To some extent	196	49.5
iii.	Not at all	163	41.2
iv.	Total	396	100.0
Female doctors were available			
i.	To great extent	26	6.6
ii.	To some extent	158	39.9
iii.	Not at all	212	53.5
iv.	Total	396	100.0
Medicines were provided free of cost			
i.	To great extent	29	7.3
ii.	To some extent	245	61.9
iii.	Not at all	122	30.8
iv.	Total	396	100.0

4.1.24 Medical Facilities:

The above table is about the medical facilities provided in the camps such as medical centers, free of cost medicines, male and female doctors, paramedical staff and maternity

homes. The table shows that 10.1% of the respondent could access to the medical centre and they were satisfied up to great extent from medical centers, 40.2% of the respondent had access to the medical centre and they were partial satisfied from medical centers, 49.7% of the respondent had no access to the medical centre and they were not satisfied from medical centers provided by different organization in the camp.

The table indicates that 7.8% of the respondents were of the views that doctors in camp of medical centre were available up to great extent, 35.4% of the respondents were of the views that doctors in camp of medical centre were not sufficient for the population of the refuge place, while majority 56.4% of the respondents were have no doctor. The data shows that doctors were short in number to provide medical services to all of the internally displaced people of the camp.

The above table is about the availability of paramedical stuff in the affected area in general and camp in particular. Table shows 8.1% of the internally displaced respondents were very much satisfied with the availability of paramedical stuff in their camp, 43.2% of the internally displaced respondents were satisfied up to some extent on the availability of paramedical staff in their camp, while 48.7% of the internally displaced respondents were not satisfied on the availability of paramedical staff in their camp for the flood affected people.

The above table illustrates that 9.3% of the medical centers in the camps have maternity services up to great extent and they render their services to the female, 49.5% of the medical centre in the camps have maternity services up to some extent and they render their services to the female only in delivery cases not for general medical checkup,

41.2% of the medical centre in the camps had no maternity services and female faced great problems in this regard.

The above table explains that 6.6% of the internally displaced people were of the view that female doctors were available in the camp by different organizations and even in private and personal capacity, 39.9% of the internally displaced people were of the view that female doctors were available but not sufficient and female felt hesitation with male doctors, 53.5% of the internally displaced people imparted their idea that female doctors were not available in the camp for general checkup of the female.

The above table shows that 7.3% of the internally displaced people had received medicines free of cost and were easily available in the camp, 61.9% of the internally displaced people had received medicines free of cost and they were of the view that some time availability become problem while 30.8% of the internally displaced people had not received medicines free of cost and they faced problems in availability of medicines in the camp.

Table # 4.1.25 Distribution of respondents by provision of security and protection in the camp

Proper shelter house was available			
Sr. No	Statement	Frequency	Percent
i.	To great extent	59	14.9
ii.	To some extent	145	36.6
iii.	Not at all	192	48.5
iv.	Total	396	100.0
Appropriate security system			
i.	To great extent	67	16.9
ii.	To some extent	144	36.4
iii.	Not at all	185	46.7
iv.	Total	396	100.0
Adequate camps for the people			
i.	To great extent	52	13.1
ii.	To some extent	140	35.4
iii.	Not at all	204	51.5
iv.	Total	396	100.0
Privacy was available for Affectees			
i.	To great extent	48	12.1
ii.	To some extent	107	27.0
iii.	Not at all	241	60.9
iv.	Total	396	100.0
There was boundary wall from the camp			
i.	To great extent	44	11.1
ii.	To some extent	117	29.5
iii.	Not at all	235	59.3
iv.	Total	396	100.0

4.1.25 Security and Protection:

The above table is about provision of protection and security in the camps such as proper shelter, appropriate security system, adequate camps, privacy and boundary wall around the camp, the table shows that 14.2% of the respondent had proper shelter house in the camp and they were satisfied up to great extent from the shelter provided, 36.6% of the

respondent had not received proper shelter house in the camp and they were satisfied up to some extent from the shelter provided, 48.5% of the respondent had not adequate shelter for the whole family and they face problem about shelter in the camp.

The table indicates that 16.9% of the respondents were of the views that there was appropriate security system in the camp in the form of security guards and police, 36.4% of the respondents think that the security system was in there in the camp but not up to great extent, while 46.7% of the respondents were of the view that there is no security system, due to which crime rate increased in the camps in general and in the society in particular.

The above table is about the availability, and sufficiency of camps for flood affected people in their local area. The table shows that 13.1% of the internally displaced respondents impart their idea that camps were enough to accommodate internally displaced people in the area, 35.4% of the internally displaced respondents had the view that camps were adequate up to some extent while majority of the respondents about 51.5% greatly rejected the statement that camps were adequate for the internally displaced people in the area.

The above table highlights one of the most important problem faced by every affected person in the camp was the non-availability of privacy. The table illustrates that 12.1% of the internally displaced people were of the view that privacy was there in the camp and it could be achieved by individual's own efforts as there was separate system for each family, 27% of the internally displaced people told that up to some extent privacy was there in the camp while majority 60 percent of the internally displaced

people reflected their idea that there was no privacy in the camp and attainment of privacy was in almost impossible in the camp.

The above table is about the boundary wall of the camp which was very important for the security and protection of the camp, the table shows that 11.1% of the internally displaced people said that camps had proper security boundary wall and they were highly satisfied from the security system through boundary wall, 29.5% of the internally displaced said that people camp had the boundary wall but they were not that much satisfied by the security system of the camp through boundary wall while 59.3% of the internally displaced people told that camp had no boundary wall from their camp and were open for entry and exit to anyone which increased crime rate in camp.

Table # 4.1.26 Distribution of respondents by provision of adequate and hygienic food

Food was provided in camp free of cost			
Sr. No	Statement	Frequency	Percent
i.	up to great extent	64	16.2
ii.	up to some extent	293	74.0
iii.	not at all	39	9.8
iv.	Total	396	100.0
Quality food was available			
i.	To great extent	52	13.1
ii.	To some extent	119	30.1
iii.	Not at all	225	56.8
iv.	Total	396	100.0
Adequate quantity of food was available			
i.	To great extent	58	14.6
ii.	To some extent	120	30.3
iii.	Not at all	218	55.1
iv.	Total	396	100.0
Attitude of food provider was good			
i.	To great extent	59	14.9
ii.	To some extent	111	28.0
iii.	Not at all	226	57.1
iv.	Total	396	100.0
Proper mechanism was there in time of distribution of food			
i.	To great extent	56	14.1
ii.	To some extent	113	28.5
iii.	Not at all	227	57.3
iv.	Total	396	100.0

4.1.26 Hygienic Food and Water:

The above table is about provision of adequate and hygienic food facilities in the camp for the internally displaced people and attitude and proper mechanism of the food distribution. The data describes that 16.2% of the internally displaced people hold the view food was provided free of cost in the camp, 74% of the respondent were satisfied up

to some extent on the availability of free of cost food in the camp to the flood affected people, while 9.8% of internally displaced people were not satisfied with the food availability in the camp.

The table indicates that 13.1% of the internally displaced people were of the view that quality and hygienic food was available in the camp up to great extent and they were highly satisfied with the quality of food, 30.1% of the internally displaced people were of the view that quality and hygienic food was available in the camp up to some extent and they were partially satisfied with the quality of food, 56.8% of the internally displaced people were of the view that quality and hygienic food was not available in the camp.

The above table is about the availability, and sufficiency of food for flood affected people in the camp. The table shows that 14.6% of the internally displaced respondents impart their idea that availability of food was enough and adequate up to great extent in the camp, 30.3% of the internally displaced respondents were of the view that adequate quantity of food was available up to some extent, while 55.1% of the internally displaced respondents conveyed that in the camp food was not available in adequate quantity.

The above table highlights one of the most important issue face by each affected people in the camp is the attitude of food provider, 14.9% of the internally displaced people were of the view that attitude of the food provider was good and particularly the behavior and attitude of the officials of nongovernmental organization was up to mark, 28% of the internally displaced people were of the view that behavior and attitude of the food provider was good up to some extent and some time they behave in rudely while

56.1% of the internally displaced people were of the view that attitude of the food provider was very bad and they acted like boss and considered the internally displaced people as 3rd degree citizens and inferior to them.

The above table is about the mechanism of food distribution. Data shows that 14.1% of the internally displaced people think that the mechanism of the most of the nongovernmental organization was good and everyone in the camp had access to the food provider, 28.5% of the internally displaced people were of the view that up to some extent there was proper mechanism of food distribution while majority 57.3% of the internally displaced people think that the mechanism of the food distribution was not good and only those who have some kind of reference got food and other facilities and the rest of the affected were deprived.

Table # 4.1.27 Distribution of respondents by provision of sanitation facilities

There was proper cleaning of camp daily			
Sr. No	Statements	Frequency	Percent
i.	To great extent	50	12.6
ii.	To some extent	108	27.3
iii.	Not at all	238	60.1
iv.	Total	396	100.0
There was proper cleaning of washrooms			
i.	To great extent	47	11.9
ii.	To some extent	121	30.6
iii.	Not at all	228	57.6
iv.	Total	396	100.0
Washrooms were in access for both male and female			
i.	To great extent	54	13.6
ii.	To some extent	112	28.3
iii.	Not at all	230	58.1
iv.	Total	396	100.0
There was proper drainage system			
i.	To great extent	52	13.1
ii.	To some extent	118	29.8
iii.	Not at all	226	57.1
iv.	Total	396	100.0

4.1.27 Sanitation Facilities:

The above table is about the sanitation and drainage facilities provided in the camps from different government and nongovernmental organizations. Data shows that 12.6 % of the internally displaced people convey the idea that there was proper cleaning of the camp on daily basis and they were highly satisfied from the sanitation, 23.3 % of the internally displaced people were of the view that camp were kept clean by the governmental and nongovernmental organization up to some extent while 60.1 % of the internally displaced people conveyed the idea that there was no proper cleaning and sanitation of camp on daily basis.

The table indicates that 11.9% of the internally displaced people view that camp washrooms were constantly kept clean on the daily basis, 30.6% of the internally displaced people view that camp washrooms had cleanness up to some extent but not on daily basis, 57.6% of the internally displaced people view that washrooms of the camps washrooms were not constantly kept clean on the daily basis, and people faced a lot of problems in regard of unhygienic condition of washrooms.

The above table is about the availability of washrooms for both male and female in the camp. The table shows that 13.6% of the internally displaced respondents view that washrooms were enough and adequate for both male and female and they were in access to each of them, 28.3% of the internally displaced respondents view that washrooms were up to some extent enough and adequate for both male and female up to some extent and they in access to each of them but some time due to crowd problems arose in the camp regarding washrooms, while 58.1% of the internally displaced respondents view that washrooms were not enough for the entire population of the refuge place.

The above table highlights that one of the important issue in the camp was the proper drainage system and people confronted this issue very regularly. Data illustrates that 13.1% of the internally displaced people were of the view that in the camp there was proper drainage system and people had no problem in this regard, 29.8% of the internally displaced people were of the view that drainage system in the camp was good up to some extent while majority 57% of the respondents were against this view and said that drainage system of camp was very poor and water was standing there which was breeding home for insects.

Table # 4.1.28: Distribution of respondents by their level of extent on psychological facilities that were provided

Counseling for mental health of the flood affectees			
Sr. No	Statement	Frequency	Percent
i.	To great extent	51	12.9
ii.	To some extent	125	31.6
iii.	Not at all	220	55.6
iv.	Total	396	100.0
Prevention of distress and suffering			
i.	To great extent	34	8.6
ii.	To some extent	108	27.3
iii.	Not at all	254	64.1
iv.	Total	396	100.0
Self encouragement of the affectees			
i.	To great extent	33	8.3
ii.	To some extent	116	29.3
iii.	Not at all	247	62.4
iv.	Total	396	100.0
Rebuilding of hope for future was developed			
i.	To great extent	34	8.6
ii.	To some extent	107	27.0
iii.	Not at all	255	64.4
iv.	Total	396	100.0

4.1.28 Psychological Counseling:

Psychological suffering of the respondents created by the flood aftermath such as now the affected people overreact in normal situation, remain sad and gloomy, take no interest in family affairs, become short tempered and take no interest in their routine work. In the camp government and nongovernmental organization provide facilities to overcome their psychological problems. Table show that 12.9% of the respondents were highly satisfied with the psychological support in the form of counseling of mental health after the flood in refuge place, 31.6% of the respondents were supported up to some extent in

psychological problems by mental counseling in the camp and 55.6% of the respondents were not psychologically supported in the form of counseling of their mental health after the flood in refuge place by any of organization. People mentally suffered in flood due to huge amount of material damages in homes and to their properties, it affected their mental health, so the counseling of mental is one of the important psychologically supported to the flood affected people.

The above table explains 8.6% of the respondents were trained that how they could prevent themselves from distress and suffering or make their impact less on their daily life after emergencies, 27.3% of the respondents educated up to some extent in prevention from distress and suffering or make their impact less on their daily life and remain contented and hopeful from future, while majority of the respondents 64.1% did not taught that how they can prevent from distress and suffering or make their impact less on their daily life after disasters.

The table shows that psychological support rendered by the governmental and nongovernmental organization is the self-encouragement to the flood affected people in the camp, 8.3% of the respondents were strongly agree that they were encouraged by the organizations to face the hardship of life confidently and bravely and these were the part of life, 29.3% of the respondents were of the view that organization support up to some extent in self-encouragement of the flood affected people, while majority 62% of the internally displaced people had received no psychological support in the form of self-encouragement in the wake of flood.

Affectees take no or less interest in the routine and family affairs after the flood, and life became boring and tedious for them, some of the organization rebuilt hope for future and encouraged flood affected people to be an active part of the society, after flood. The table shows that 8.6% of the respondents were supported up to great extent in rebuilding their hope for future and bringing out of sad and gloomy way of life, 27% of the respondents were supported up to some extent in rebuilding their anticipation for future and try to make them an active part of the society, while majority 64.4% of the respondents were not supported in rebuilding of their hope for future.

The data clearly shows that all of the organizations whether government or non-government paid attention to the psychological problems in which affected people suffer nevertheless some nongovernmental organization work in the psychological impacts of the disaster and supported the affected people in the camp during their stay.

4.2 Bivariates Analysis:

Bivariates were used for the analysis of two or more than two variables simultaneously. Bivariates manipulated the association between independent and dependent variables. Bivariates used in cross tables, on which x- axis dependent variables were taken and on y-axis independent variables were mentioned. The relationship between variables was shown in the row. In Bivariates tables hypothesis were tested by the different test statistics. Chi Square test was used for finding the empirical relationship between all independent and dependent variables, while Lambda and Gamma Test Statistics were used according to the nature of data. Each observation in brackets was also represented by their calculated percentages, and it determines whether the relationship exist between

variables in the hypothesis is statistically significant and can be generalized for the entire population in the same situation.

The following table shows the association between flood damages and psychological problems faced by the respondents during the flood. People who had more home damages (in the form of construction) in the flood faced more psychological problems in different shape. Home damages had a direct relationship with the psychological problems faced by the flood-affected people. Hypothesis was made to find out the relationship between these two variables that, higher damages of flood will be higher psychological problems faced by the respondents.

Hypothesis 4.2.1 There is an association between flood damages and psychological problems faced by respondents during flood.

Hypothesis 4.2.1.1 Higher damages of flood higher will be psychological problems faced by the respondents during flood.

Table # 4.2.1.1: People overreact in normal situations by house damage

House damage	People over reacted in normal situations			Total
	Agree	Undecided	Disagree	
To great extent	78.1% (107)	2.2% (3)	19.7% (27)	34.6% (137)
To some extent	55.3% (52)	6.4% (6)	38.3% (36)	23.7% (94)
Not at all	49.7% (82)	3.0% (5)	47.3% (78)	41.7% (165)
Total	60.9% (241)	3.5% (14)	35.6% (141)	100.0% (396)
Chi Square value = 29.745 df = 4 Significance = 0.000				
Gamma value = 0.399 Significance = 0.000				

Table shows that home damages have great effects on the mental health of the flood affected people. The table demonstrates that 35 percent of the respondents' homes were completely destroyed in the flood, 24 percent of the respondent's homes were partially destroyed in the flood, while 42 percent of the respondents had no damages in the home physical structure. The table also shows that 61 percent of the respondents were agree that people show over reaction after the flood, 4 percent of the respondents had no opinion regarding the anger and over reaction, and 36 percent of the respondents were

disagree with the statement that people show over reaction in normal situation after the flood.

The above cross table indicates the relationship between home damages as independent variable and psychological problems as dependent variable. The table shows close relationship between two, which is revealed from the table that 78 percent of the respondents were agree and strongly agree that the people whose home were completely destroyed in the flood shows overreaction in the normal situation and became short tempered and remain in state of anger every time without any proper reason, some of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 20 percent of the respondents were of the view that home damage play no such role in the mental health in particularly with overreaction of people in normal situation.

The table explains that 55 percent of the respondents were agree that the people who faced partial destruction in home structure shows overreaction in the normal situation and became short tempered and in stay angry all the time without any proper reason, 6 percent of the respondent not yet decided that with which side they stand such as in agreement or disagreement and 38 percent of the respondents were of the view that home damage play no such role in the mental health in particularly with overreaction of people in normal situation.

The above table also represents that 50 percent of the respondents were agree that the people who faced no destruction in home structure shows overreaction in the normal situation and became short temper and in remain state of anger all time have some other

reason which create psychological problems, 3 percent of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 47 percent of the respondents were of the view that those people who have no home damages face no mental health problem in form of overreaction in normal situation.

The above cross table clearly shows that there is a strong relationship between independent variable home damage and dependent variable i.e. psychological problem in the shape of overreaction in normal situation. The data shows that as home damages increase psychological problems increased and as destruction in home structure decreases the psychological problems decreases among the flood affected people in the area.

The relationship is then verified by the Chi square and Gamma test statistics. Chi square value for the above cross table is 29.745 and highly significant at 1% level of significance and gamma value is 0.399 and highly significant at 1% level of significance which shows that there is very strong relation between home damages and psychological problems.

Hypothesis 4.2.1.2 Higher home damages higher will be sadness of respondents

Table # 4.2.1.2: Affectees remain sad and gloomy by house damage

House damage	Affectees remain sad and gloomy			Total
	Agree	Undecided	Disagree	
To great extent	78.1% (107)	7 (5.1%)	16.8% (23)	34.6% (137)
To some extent	59.6% (56)	6 (6.4%)	34.0% (32)	23.7% (94)
Not at all	50.9% (84)	3.6% (6)	45.5% (75)	41.7% (165)
Total	62.4% (247)	4.8% (19)	32.8% (130)	100.0% (396)
Chi Square value = 28.805 df = 4 Significance = 0.000				
Gamma value = 0.403 Significance = 0.000				

The table shows relationship between flood damages and psychological problems faced by the respondents during flood. People who have more home damages in the flood faced more psychological problems in form of sadness and gloomy. Home damages have direct relation with the mood of the flood affected people. Hypothesis is made to find out the relationship between these two variables that, higher home damages of flood higher will be the psychological problems of sadness and depression.

The above table shows that home damages have great effects on the mental health of the flood affected people. The table demonstrates that 35 percent of the respondents' homes were completely destroyed in the flood, 24 percent of the respondent's homes were partially destroyed in the flood, while 42 of the respondents had no damage in the home structure.

The table also shows that 62 percent of the respondents were agree that people feel sadness and gloomy during the flood, 5 percent of the respondents have no opinion regarding the fear in natural disasters and feeling of sadness and gloomy in the flood, and 33 percent of the respondents were strongly disagree with the statement that people feel sadness and gloomy in the flood affected areas.

Table indicates the association between home damages as independent variable and affected people mood as dependent variable. The table shows close relationship between two variables, which is revealed from the figure that 78 percent of the respondents were agree and strongly agree that the people who got their homes completely destroyed in the flood showed sadness and depression in their daily life without any proper reason, 7 percent of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 16 percent of the respondents were of the view that home damages play no such role in the mental health in particularly with grief and sorrow in normal situation.

The table explains that 60 percent of the respondents were agree that the people who face partial destruction in home structure felt sadness and gloom in most of the time and took less interest in routine task, 6 of the respondent not yet decided that with which side they stand such as in agreement or disagreement and 34 percent of the respondents were of the view that home damages play no such role in the mental health in particularly with the mood of the flood affected people.

The above cross table also represents that 51 percent of the respondents were agree that the people who faced no destruction in home structure also had upset mood in

the flood, 3 percent of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 46 percent of the respondents were of the view that those people who had no home damage faced no mental health problem in form of sadness and gloom in normal situation.

The above table openly shows that there is a strong relationship between independent variable home i.e. damages and dependent variable i.e. psychological problem in the shape of flood affected people's mood. Data shows that as home damages increases psychological problems also increases and as destruction in home structure decreases the psychological problems also decreases among the flood affected people in the area.

The association is then verified by applying Chi square and Gamma test statistics. Chi square value for the above cross table is 28.805 and highly significant at 1% level of significance and gamma value is 0.403 which proved that hypothesis that higher the home damage in the flood higher will be psychological problems is of high significance at 1% significant level, so the hypothesis accepted.

Hypothesis 4.2.1.3 Higher level property damages from flood higher will be non interest in house hold routine work

Table # 4.2.1.3: Taking no interest in routine work by house damage

House damage	Taking No interest in routine work			Total
	Agree	Undecided	Disagree	
To great extent	71.5% (98)	7.3% (10)	21.2% (29)	34.6% (137)
To some extent	62.8% (59)	4.3% (4)	33.0% (31)	23.7% (94)
Not at all	48.5% (80)	4.2% (7)	47.3% (78)	41.7% (165)
Total	59.8% (237)	5.3% (21)	34.8% (138)	100.0% (396)
Chi Square value = 23.154 df = 4 Significance = 0.000				
Gamma value = 0.350 Significance = 0.000				

The above table shows relationship between flood damages and psychological problems faced by the respondents during flood. People who have more home damages in the flood face more psychological problems in the form of taking less or no interest in routine work and family affairs. Home damages directly effect on the routine work and family affairs of the flood affected people. Hypothesis is made to find out the relationship between these two variables. The hypothesis was; higher the home damages during flood higher lower will be the interest in routine tasks and family affairs.

The above table shows that home damages have great effects on the mental health of the flood affected people. The table demonstrates that 35 percent of the respondents' homes were completely destroyed in the flood, 24 percent of the respondent's homes

were partially destroyed in the flood, while 42 of the respondent's home were not destroyed.

The table also illustrates that 60 percent of the respondents were agree that people show over reaction after the flood, 6 percent of the respondents have no opinion regarding the irritation or over reaction, and 35 percent of the respondents were strongly disagree with the statement that people show over reaction in normal situation after the flood.

Table indicates the association between home damages as independent variable and affected people mood as dependent variable. The table shows a close relation between variables, which is revealed from the figure that 71 percent of the respondents were agree and strongly agree that the people whose home were completely destroyed in the flood take no or less interest in routine work and family affairs in daily life, 7 percent of the respondent had no opinion and 21 percent of the respondents were of the view that home damages play no such role in the mental health in particularly with overreaction of people in normal situation.

The table explains that 63 percent of the respondents were agree that the people who face partial destruction in home structure take no or less interest in routine work and family affairs in daily life, 6 of the respondent had no opinion and 33 percent of the respondents were of the view that those people whose home was not damaged in the flood were active part of the society and take interest in their daily routine tasks.

The above cross table also represents that 38 percent of the respondents were agree that the people who faced no destruction in home structure take no interest in their

daily routine tasks and in family affairs, which created psychological problems, 3 percent of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 46 percent of the respondents were of the view that those people who have no home damage faced no mental health problem in form of overreaction in normal situation.

The above table reveals that there is a relationship between independent variable as home damages and dependent variable as psychological problem in the form of taking no interest in routine work. The data show that two variables are directly proportion as home to damages increase psychological problems also increases and as destruction in home structure decrease the psychological problems also decreases among the flood affected people in the area.

The association is then verified by applying Chi square and Gamma test statistics. Chi square value for the above cross table is 23.154 and highly significant at 1% level of significance and gamma value is 0.350 and greatly significant at 1% level of significance

The table also illustrates that 60 percent of the respondents were agree that people show over reaction after the flood, 6 percent of the respondents have no opinion regarding the irritation or over reaction, and 35 percent of the respondents strongly disagree with the statement that people show over reaction in normal situation after the flood.

The above cross table indicates the relationship between home damages as independent variable and feel anxiety and depression in rain and natural disasters as dependent variable. The table shows that both variables have close relation with one another, which is revealed from the figure that 81 percent of the respondents were agree and strongly agree that the people whose home were completely destroyed in the flood feel anxiety and depression in rain and natural disasters, negligible number of the respondent not yet decided that in which side they stand such as in agreement or disagreement and 17 percent of the respondents were of the view that home damages play no such role in the mental health in particularly with anxiety and depression in rainy season.

The above table explains that 66 percent of the respondents were agree that the people who faced partial destruction in home structure feel anxiety and stress in rainy season, small number of the respondent have no opinion on the statement that people felt anxiety in rain, and 33 percent of the respondents were of the view that those people whose home were not damaged in the flood were active part of the society and feel anxiety and depression in rainy season and fear from natural disasters.

The above cross table also represents that 52 percent of the respondents were agree that the people who faced no destruction in home structure yet get nervous in the rainy season, which create psychological problems, negligible number of the respondents not yet decided that in which side they stand such as in agreement or disagreement and 43 percent of the respondents were of the view that those people who have no home damages face no mental health problem in form of nervousness in rain.

The above table reveals that there a strong relationship between independent variable as home damages and dependent variable as psychological problem in the shape of anxiety in rain and fear in natural disasters. The data shows that as home damages increases psychological problems increases and as destruction in home structure decreases the psychological problems decreases among the flood affected people in the area.

The association is then verified by applying Chi square and Gamma test statistics. Chi square value for the above cross table is 23.116 and highly significant at 1% level of significance and gamma value is 0.403 which is evident in hypothesis, that higher the home damage in the flood higher will be the level of anxiety in rainy season and other natural disaster, is highly significant at 1% level of significance, so the hypothesis established.

Hypothesis 4.2.2 There is an association between river vicinity and level of damage during the flood.

Hypothesis 4.2.2.1 Lower the level of distance of river higher will be the property damages

Distance of river has very much close relationship with the residence of people. Water in one or the other form is essential for the people. On one hand availability of rivers render great benefits and help in the development and growth in all sectors and particularly in agriculture field, but on the other hand it also hamper and slow down the progress of the area. The table shows relationship between distance of river and house damages where distance of river is taken as independent variable and house damage as a dependent variable.

Table # 4.2.2.1: Damaged caused to house by distance of river from residence

River's Distance	House Damage			Total
	Not at all	To some extent	To great extent	
Within Km	32.7% (33)	17 (16.8%)	50.5% (51)	25.5% (101)
1 Km	40.5% (87)	57 (26.5%)	33.0% (71)	54.3% (215)
2 km	56.2% (45)	25.0% (20)	18.8% (15)	20.2% (80)
Total	41.7% (165)	23.7% (94)	34.6% (137)	100.0% (396)
Chi Square Value = 22.238 df = 4 Sig. Level = 0.000				
Gamma Value = 0.303 Sig. Level = 0.000				

Table shows 26 percent of the respondents were living at distance of less than one kilometer from nearest river. About 54 percent and 20 percent were living at distance of one km and two km, respectively. The table also shows that 42 percent of the respondents had no loss in their house structure, 24 percent of the respondents' home had damaged up to some extent and 35 percent of the respondents had home damaged up to great extent.

The above table shows that distance of river have close relation with the flood damage in the area. The extent of damage decreases as river distance increases, and increase as the distance of river decrease in the flood affected area. People who lived near to rivers, their homes were severely affected from the flood either fully destroyed or partially damaged and those who were living far away from the river bear less damage.

The table indicates that 32 percent of the respondents who were living within kilometer of nearest river had no damaged in respect of their home structure, 17 percent of the respondents had home damage up to some extent, while 51 percent of the respondents' home was completely destroyed in the flood. The table also shows that 40 percent of the respondents who were living one kilometer far away from the river had no home damaged, 26 percent of the respondents' homes were partially destroyed in the flood, and 33 percent of the respondents' homes were completely destroyed during the flood.

The table further demonstrates that 56 percent of the respondents who were relatively far away from the river had received no structural damages in their home, 25 percent of the respondents have partial destruction in their homes while 20 percent of the respondents had home damaged up to great extent. The table clearly shows that increase

in the river distance, lower the damage and high destruction in home which were near to the river.

Hence the hypothesis is accepted that house damage has directly relation with the distance of the river. Chi square value is 22.238 and highly significant at 1% level of significance and shows that variables have very strong relationship which further supported and verified by the Gamma test which is highly significant at 1% significance level.

Hypothesis 4.2.2.2 Lower the level of distance of river higher will be the damages of home articles

Table # 4.2.2.2: Loss of house articles by distance of river from residence

River's Distance	Home appliance destroyed			Total
	Not at all	To some extent	To great extent	
Within Km	9.9% (10)	35.6% (36)	54.5% (55)	25.5% (101)
1Km	20.9% (45)	46.0% (99)	33.0% (71)	54.3% (215)
2 km	47.5% (38)	23.8% (19)	28.8% (23)	20.2% (80)
Total	23.5% (93)	38.9% (154)	37.6% (149)	100.0% (396)
Chi Square value	46.488	df = 4	Significance level 0.000	
Gamma value	0.386	Significance level 0.000		
Lambda value	0.090	Significance level 0.002		

The above table shows the relationship between two variables i.e. distance of river and destruction of home appliances during the flood. Home appliances include air conditioners, washing machines, freezer and refrigerator, personal computer, kitchen stove etc. In the recent flood of July 2010 every home which was located within two

kilometer to river had four to five feet water inside the home, which affected home appliances.

Table shows that home appliance were very much affected from the flood water in which 38 percent of respondents' home appliances were completely destroyed in the flood, 40 percent of the respondents' home appliances were affected partially from the flood water, while 23 percent of the respondents' home appliances were not destroyed during the flood and they safeguarded them. The table also indicates that 25 percent of the respondents were living at a distance of less than one kilometer from nearest river, about 54 percent of the respondents were living in a residence located one kilometer from the river and only 20 percent of the displaced respondents were living at a distance of two kilometers.

The table shows that 10 percent of the respondents who were living within a kilometer of nearest river had not damaged their home appliances, 36 percent of the respondents had home appliances damaged up to some extent while, 54 percent of the respondents' home appliances were completely destroyed in the flood.

The table also shows that 21 percent of the respondents who were living one kilometer far away from the river had no home appliances damaged, 46 percent of the respondent's home appliances were partially destroyed in the flood, and 33 percent of the respondents' home appliances were completely damaged during the flood. The table further demonstrates that 47 percent of the respondents who were living at a distance of 2km from the river had not damaged in regard to their home appliances, 24 percent of the respondents had partial destroyed their home appliances while 38 percent of the

respondents had damaged their home appliance up to great extent. The table vividly mentioned that river distance had directly affected the home and their appliances.

The hypothesis, lower the level of distance of home and river higher will be the damages of home articles in the form of home appliances is accepted. The cross table Chi square value is 46.488 and highly significant at 1% level of significance and Lambda value is 0.386 and highly significant at 1% level of significance while gamma value is 0.090 and highly significant at 2% level of significance.

River's	Home utensils damage			Total
Distance	Not at all	To some extent	To great extent	
Within Km	10.9% (11)	33.7% (34)	55.4% (56)	25.5% (101)
2-4Km	16.7% (36)	49.3% (106)	34.0% (73)	54.3% (215)
5-8km	40.0% (32)	38.8% (31)	21.2% (17)	20.2% (80)
Total	19.9% (79)	43.2% (171)	36.9% (146)	100.0% (396)
Chi Square value	40.974	df = 4	Significance level = 0.000	
Gamma value	0.411	Significance level = 0.000		

The above table explains the relationship between independent variable which is distance of river and dependent variable which is home utensils damage. Home utensils in the form of kitchen utensils were destroyed in great number during the flood. In the recent flood of July 2010, every home which was located two and four kilometers to river had received four to five feet water inside home, which affect home utensils up to a great extent.

Table shows that home utensils were very much affected by the flood water in which 20 percent of respondents home utensils were completely destroyed in the flood, 43 percent of the respondents' home utensils were affected partially from the flood water, while 37 percent of the respondents' home utensils were not destroyed during the flood and they safeguarded them. The table also revealed that 25 percent of the respondents were living at a distance of less than one kilometer from nearest river, about 54 of the respondents were living at a residence located one kilometer from the river and only 20 percent of displaced respondents were living at a distance of two kilometers from the river.

The table explains that 10 percent of the respondents who were living within kilometer of nearest river had no home appliances damaged, 33 percent of the respondents had home appliances damaged up to some extent while, 55 of the respondents' home appliances were completely destroyed in the flood. The table moreover shows that 16 percent of the respondents who were living one kilometer far away from the river had no home appliances damaged, 49 percent of the respondents had partially destroyed home appliances in the flood, and 34 percent of the respondents' home appliances were completely damaged during the flood. The table further demonstrates that 40 percent of the respondents who were living at a distance of two kilometer far away from the river had no damaged to their home utensils, 38 percent of the respondents had partial destruction in the home appliances while 21 percent of the respondents had home utensils damages up to great extent. The table clearly mentions that river distance has directly affected the home and their appliances and caused high destruction of home utensils in the homes which were located near the river.

The cross table Chi square value is 40.974 and their significance level is 0.000, Lambda value is 0.386 and highly significant at 1% level of significance and gamma value is 0.411 and highly significant at 1% level of significance. The hypothesis, lower the level of distance of river higher will be the damages of home articles in the form of home utensils is up held.

Hypothesis 4.2.3 There is an association between structure of house and damages in home during flood.

Hypothesis 4.2.3.1 Better house (in form of construction) lower will be amount of damages

Table # 4.2.3.1: Damage to house in the flood by its structure

House structure	House damage			Total
	Not at all	To some extent	To great extent	
Kacha	.0% (0)	5.6% (1)	94.4% (17)	4.5% (18)
Semi kacha pakka	18.6% (45)	31.8% (77)	49.6% (120)	61.1% (242)
Pakka	88.2% (120)	11.8% (16)	.0% (0)	34.3% (136)
Total	41.7% (165)	23.7% (94)	34.6% (137)	100.0% (396)
Chi Square value = 2.080 df = 4 Significance level = 0.000				
Gamma value = -0.659 Significance level = 0.000				

House structure in the flood affected zone was divided into paved, semi paved and manmade houses. House structure has direct relationship with the flood affected homes. People who had unpaved homes bare high damage in the flood. Hypothesis is made to

find out the relationship between the two variables i.e. better house (in form of construction) lower will be the amount of damages.

The above table shows that type of home structure has great effects on the destruction of homes. The table demonstrates that 5 percent of the respondents were living in unpaved (kacha) homes, 61 percent of the respondent's homes were semi paved (semi Kacha pakka) while 34 of the respondents were living in homes which were completely paved (pakka), data shows that majority of the respondents were living in semi paved and paved homes and less number of respondents were living in unpaved homes due to urban area.

The above table demonstrates that 42 percent of the respondents' homes were not destroyed in the flood, 24 percent of the respondent's homes were partially destroyed in the flood, while 35 percent of the respondents homes were completely destroyed in the recent flood.

The above cross table indicates the relationship between type of home structure as independent variable and house damage as dependent variable. Home damages were directly dependent of the house structure. The table shows that both variables have close relationship with one another, which is revealed from the data that 94 percent of the respondents who had unpaved homes were completely destroyed 6 percent of the respondents were living in manmade homes which were partially damaged from the flood and no unpaved home were remain undamaged during flood.

The above table explains that 19 percent of the respondent's semi paved homes had not damaged in the flood, 32 percent of the respondents semi paved (semi Kach

Pakka) had partially damaged, while 50 percent of the respondents semi paved homes were completely destroyed in the flood. The table also indicates that 88 percent of the respondents paved homes were completely saved from the flood and no damage at all, 12 percent of respondents paved homes were partially damaged during flood while no paved home were completely destroyed in the flood.

From the above table it is evident that there is very strong relationship between independent variable i.e. type of home structure and dependent variable i.e. home building damage. The data shows that unpaved home were completely destroyed in the flood and paved homes were completely saved during the flood, and semi paved homes were damaged accordingly in the recent flood.

The association is tested by applying Chi square and Gamma test statistics. Chi square value for the above cross table is 2.080 and highly significant at 1% level of significance and have 4 degree of freedom, and gamma value is -0.659 highly significant at 1% level of significance, shows high significance of the hypothesis that better home structure save homes in the floods, hypothesis is approved by both the tests.

Hypothesis 4.2.4 There is an association between family monthly income and duration of displacement in the refugee camp

Hypothesis 4.2.4.1 Higher the level of income, lower will be duration of displacement in the refugee camp

Table # 4.2.4.1: Displacement duration by the monthly income of family

Family Monthly Income	Total Displacement Duration (in months)				Total
	less than 1	1-3	4-6	7 & above	
1-10000	4.4% (4)	5.6% (5)	37.8% (34)	52.2% (47)	22.7% (90)
10001-15000	10.0% (10)	15.0% (15)	57.0% (57)	18.0% (18)	25.3% (100)
15001-20000	11.8% (14)	10.1% (12)	66.4% (79)	11.8% (14)	30.1% (119)
above 20000	25.3% (22)	28.7% (25)	41.4% (36)	4.6% (4)	22% (87)
Total	12.6% (50)	14.4% (57)	52.0% (206)	21.0% (83)	100.0% (396)
Chi Square value = 1.042 df = 9 Significance level = 0.000					
Gamma value = -0.504 Significance level = 0.000					
Lambda value = 0.143 Significance level = 0.000					

One of the impacts of floods and other natural disasters is the displacement of the affected people from their homes to an unknown place but internally displaced persons did not cross international boundaries like refugees. In the year 2010, disasters mainly floods and storms compelled 38 million individuals to displace across the globe among which 11 million were in Pakistan who displaced due to flood caused by the monsoon rains in mid of 2010 bringing one-fifth of total land in Pakistan under water (NDMA,

2010). Total duration of internal displacement in related to income and financial position and status of the displaced family.

The above table indicates that 23 percent of the respondents had up to 10000 rupees average monthly income from all sources, 25 percent of the respondents had monthly income were in range of 10001 to 15000 rupees, 31 percent of the respondents had average monthly income were ranging from 15001 to 20000 rupees and 22 percent of the respondents family monthly income was more than 20000 rupees from sources.

The table also shows that 13 percent of the respondents spend less than one month in displacement, 14 percent of the respondents were internally displaced for the period of one to two months, 52 percent of the respondents total duration of internal displacement in refugee place was four to six months, and 21 percent of the respondents had above seven month stay in the refugee camp.

The above cross table presents that 10 percent of the respondents whose family monthly income was up to 10000 rupees stayed in the refugee place for maximum three months, 38 percent of the respondents whose family monthly income was up to 10000 rupees were internally displaced from their residents for the four to six months, while 52 percent of the respondents lived in the refugee camp for more than seven months, whose family monthly income was up to 10000 rupees. The table also clearly indicates that those internally displaced persons whose monthly income range was 10001 to 15000 rupees lived in the camp for period of four to six months, in which 10 percent respondents lived in displace place for less than one month, 15 percent of the respondents stayed over there for the period of two to three months, 57 percent of the respondents

were in the camp for four to six months and 18 percent of the respondents total duration of the internal displacement was seven or above seven months.

Above cross table points that 12 percent of the respondents whose monthly family income was ranging from 15001 to 2000 rupees stayed in the refugee place for less than one month, 10 percent of the respondents whose monthly family income was in range of 15001 to 2000 rupees were internally displaced from their residents for the one to two months, 66 percent of the respondents whose monthly family income was between 15001 to 2000 rupees were internally displaced from their residence for the four to six months, while 12 percent of the respondents lived in the refugee camp for seven and more than seven months, whose monthly family income was ranging from 15001 to 2000 rupees.

The table also clearly indicates that those internally displaced persons whose monthly income was above 20000 rupees had less stayed in the refugee camp during the flood. The table shows that 25 percent of the respondents whose monthly income was more than twenty thousand stay in the camp for less than one month, 29 percent of the respondents stayed over there for the period of two to three months, 41 percent of the respondents were in the camp for four to six months and 5 percent of the respondents total duration of the internal displacement was seven months or above.

The above table categorically demonstrates that there is a very much strong relation between family monthly income and total duration of internal displacement in the refugee camp during the flood, as the family monthly income increases total duration in refugee camp decreases and vice versa.

Hypothesis, Higher the level of income lower will be the duration of displacement in the refugee camp was tested by three test statistics such as Chi Square, Lambda and Gamma. Chi square value is 1.042 having degree of freedom 9 and highly significant at 1% level of significance and Lambda value is 0.143 and highly significant at 1% level of significance and Gamma value is -.504 and highly significant at 1% level of significance showing the strong association between dependent and independent variable of the hypothesis.

CHAPTER FIVE

SUMMARY, MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study was intended to draw attention towards the socio-psychological problems faced by the flood affected people and find out its relationship with internal displacement. The study was carried out for these objectives (1) To evaluate the socio-economic characteristics of 2010 flood affected people (2) To identify the socio- psychological problems faced by flood affectees (3) To study the level of relief and rehabilitation efforts extended by the Government and Non Government Organizations to the flood victims. (4) To suggest appropriate measures to minimize socio-psychological sufferings of the victims.

The universe of the study was the flood affected areas of Khyber Pakhtunkhwa province, which was damage in July 2010 flood. Majority of the districts in the province are directly affected from flood and other are indirectly affected, nevertheless data was collected from two districts of the province, namely Swat and Charsadda. These two districts are the most severely affected zone of the province on the basis of flood affected persons, five union councils was selected from districts Swat and four union councils was selected from district Charsadda through random sampling technique. From each union

council forty four flood affected and internally displaced respondents are selected through random sampling, which comprises of half male and half female.

The data was collected through interview schedule. A detail questionnaire was designed for the collection of data; which consist of Personal profile of the respondents, household profile, social impacts of flood, psychological impacts of flood, and facilities provided to flood affected internally displaced persons in the refugee camp from governmental, nongovernmental organization and personal affords.

5.2 Major Findings of the Study

- From District Charsadda 48% of respondents were selected.
- Share of District Swat in the study was 52%.
- From each union council 11% respondents were selected.
- Data was collected from age group of 20 to 60 year of male and female in which 31% were from 36 to 40 of years.
- Data was gathered from male and female in which 50% of the respondents were male and 50% were female.
- Almost 49% of the respondents had average monthly income was in the range of 10000 to 15000 rupees.
- In the target area 62% of the respondents were living in their own houses,

- About 61% of the respondents were living in semi paved (semi kacha pakka) houses.
- In the selected flood affected area approximately 52% of the respondents had received formal education.
- About 46% of the educated respondents had higher secondary level of education which include matriculation and intermediate
- Majority of the respondents i.e. 59% of the respondents were living in joint family system where parents had their married children, and
- Every family had at least five male members, which is almost 86%.
- About 85% of the respondent had above five female members in their family.
- The data presents that 48% of the respondents had two earning member in their family.
- The data explains that 30% of the respondents had family monthly income in range of 15001 to 20000 rupees.
- The data displays that 73% of the respondents were living in the area where there was one river which some times over flow in the rainy season.
- The data confirms that 56% of the respondents were living in the area where river was in the range of two to four kilo meter,

- The data shows that 89% of the respondents had experienced flood in one or the other form before July 2010 flood in their area,
- The data presents that 46% of the respondents experienced medium level of flood before July 2010.
- The data exhibit that 50% of the respondents experienced low level of flood before 2010 flood.
- About 50% of the respondents were of the view that the experience flood once in every year having different intensity in different years,
- The data shows that 57% of the respondent were of the view that they experienced flood up to one feet high before 2010 flood,
- The data justify that 76% of the respondents confronted from high level of flood in their area and water in their homes were in range of five to seven feet,
- The data clarify that 42% of the respondents' houses were not damage during the flood in the area.
- The data shows that 89% of the respondent view that shops and cottage industries were severely affected from flood,
- The data illustrates that 85% were successful in saving their home documents when the flood approach the area.

- The data demonstrates that 90% of the respondents were of the view that flood render no harm to their academic credentials.
- Majority of the respondents i.e. 91% of the respondents had no lose of jewellery in the flood.
- The data disclose that 43% of the respondents' home utensils damage up to some extent.
- About 43% of the respondents' viewed that forest in their area was badly affected by the flood, because pressure of the flood water was high and it took everything came in its way.
- The data shows that 52% of the respondents' area was visited by the tourists,
- The data presents that 48% of the respondents' area was not visited by tourists,
- The data confirms that 48% of the respondents' viewed that flood had no affect on tourists visits.
- The data from district Swat shows that 88% of the respondents said that flood affected tourist hotels, which were damaged up to great extent,
- The data proves that 89% of the respondents' viewed that tourist spots were severely damaged in their area.
- The data makes clear that 91% of the respondents viewed that roads were damaged by flood which directly affected tourism in their area.

- The data describes that 96% of the respondents view that business of the area was affected by the flood, where majority of the people concerned directly and indirectly with tourism and tourism was severely affected by the recent flood.
- The data vindicates that 96% of the respondents said that flood affected culture exchange very severely.
- There was 93% of the respondents view unemployment increased in the area after the flood because of significant decrease in the tourists and business activities as people were in search of jobs.
- The data clarifies that 92% of the respondents view that flood affected people's purchasing power and declined up to a great extent, increase in unemployment and business decline due to tourism
- The data makes clear that 91% were of the view that mental stress of the common people rose on damage caused by flood, increased unemployment and decline in the business of the area.
- The data demonstrates that 81% of the respondents confront gastric problems. Gastric problems were due to the use and drinking of contaminated flood water as during flood non availability of clean water basically increased gastric problems in the flood affected areas.
- The data shows that 68% of the respondents had the problem of diarrhea during the flood time.

- The data elucidates that 60% of the respondent faced gastric problem of cholera by using contaminated flood water.
- The data defends that 40% of the respondents did not face such gastric problem of cholera.
- The data shows that 57% of the respondents faced severe inflammation in the esophagus.
- The data rationalizes that 43% of the respondents protected themselves from such type of gastric disease by avoiding the use of flood water.
- The data justifies that 66% of the respondents faced gastric problems of acidity by using flood contaminated water.
- The data explicates that 85% of the respondents faced skin problem in the form of scabies, In the past flood people were less affected by skin diseases, while in the recent flood they confronted such problems.
- About 72% of the respondents faced minor pimple and small pitch in flood and particularly those people severely affected from this skin infection who use and walk in the flood water.
- About 69% of the respondent faced problem of redness of their skin during the flood.
- The data explicates that 63% of the respondents faced severe inflammation in their whole body and also faced problems of irritation in their skin

- The data shed light on the problems faced by the flood affected people that 78% of the respondents had dry skin during flood.
- The data shows that 54% of the respondents faced eye infection in the form of eye inflammation and swelling in their eyes using contaminated flood water
- The data illustrates that 46% of the respondents had eye infection in the form of eye inflammation.
- The data indicates that 82% of the respondents had eye infection in the form of eye redness using and moving in flood water.
- The data shows that 79% of the respondent faced eye infection in the form of the swelling in the eyes.
- The data demonstrates that 75% of the respondents faced injuries in the form of some deep skin wound.
- The data shows that 91% of the respondents were not affected by the flood in respect of the simple fracture where only one bone or some part of the bone cracked.
- Majority of the respondents about 98% of them had no compound fracture during flood.
- The data had been collected from the urban area of the flood affected districts where majority of the respondents had no agriculture land only 8% of the respondents had land.

- About 82% of the respondents had no agricultural land in the area. The study was carried out in the urban area of the flood affected districts.
- The data shows that 73% land owner respondents had cultivated land in the flood affected area.
- The data shows that 43% of the medical centre respondents told that the recent flood gave less harm to the clinics, offices and hospital building.
- The data indicates that 61% of the school representatives were of the view that the recent flood render harm up to some extent to the building of the school in the form offices, classrooms, staff rooms, boundary wall, washrooms damages, and hospital building,
- There was 56% of the respondents said that school remain closed for three months in the flood,
- The data illustrates that 84% of the respondents shifted their school going children to other school on temporary bases and some of them shift permanently,
- The data demonstrates that 78% of the respondents hold the views that schools were occupied by the flood affectees and government and non government organizations to arrange camps for affected people,
- Books and note books were lost by 62% of the respondents' school going children.

- The data indicates that 63% of the respondents' school going children's performance in exam was very much affected from the flood,
- About 61 percent of the respondents agree that people show over reaction after the flood,
- The data mentions that 62 percent of the respondents agree that people feel sad and gloomy during the flood.
- The data shows that 71 percent of the respondents agree and strongly agree that the people whose home were completely destroyed in the flood take no or less interest in routine work and family affairs in daily life.
- The data illustrates that 60 percent of the respondents agree that people show over reaction after the flood.
- The data confirms that 53% of the respondents had three feet water in their home at the time of evacuation.
- There were 78.3% of the respondents evacuated their homes within 24 hours as the flood moved toward to their area.
- The data clarify that 68.2% of the respondents first went to their relative's house after evacuation from their home during the flood.
- The data evident that 44.7% of the respondents changed their camps once in displacement,

- The data presents that 52% of the respondents had internal displacement in refugee camp from four to six months.
- The data illustrates that 64.4% of the internally displaced respondents disclose that total population of their camp was in the range of 1001 to 2000 person.
- The data demonstrates that 50% of the internally displaced respondents were registered as internally displaced person with department of social welfare.
- The data proves that 50.3% of the respondents had six to nine family members registered as internally displaced person.
- About 83.6% of the internally displaced respondents were registered with different organizations.
- The data shows that 50.5% of the respondents had received financial assistance from government, nongovernmental organizations and private sources.
- The data mentions that 49.5% of the respondents were not financially supported by any of the sources.
- There were 45.5% of the respondents received in range of 20001 to 30000 rupees financial assistance from different sources.
- Schools were available to 60.1% of the respondents' school going children in the camp.

- About 78.5% of the respondents were of the view that majority of the school going children who lost their books and note book in the flood were facilitated by free of cost books and note books
- The data shows that 40.2% of the respondent had access to the medical centre and they were partially satisfied from medical centers,
- The data presents that 49.7% of the respondent had no access to the medical centre and they were not satisfied from medical centers provided by different organization in the camp.
- There was no doctor for 56.4% of internally displaced people in the camp.
- Regarding availability of paramedical staff 43.2% of the internally displaced respondents were satisfied up to some extent.
- About 48.7% of the internally displaced respondents were not satisfied with the availability of paramedical staff in their camp for the flood affected people.
- The data clarify that 49.5% of the medical centre in the camps had maternity services up to some extent and they render their services to the female only in delivery cases not for general medical checkup,
- The data mentions that 41.2% of the medical centre in the camps had no maternity services and female faced great problems in this regard.
- Female doctors were not available to 53.5% of the internally displaced people in the camp

- There was 61.9% of the internally displaced people who received medicines free of cost and they were of the view that some time availability of medicine become problem
- The data illustrates that 48.5% of the respondent had not received adequate shelter for the whole family and they faced problem of shelter in the camp.
- About 46.7% of the respondents were of the views that there was not security system in the camp.
- The data demonstrates that 51.5% greatly rejected the statement that camps were adequate in relation to the internally displaced people in the area.
- The data explains that 60 percent of the internally displaced people reflected their idea that there was no privacy in the camp and attainment of privacy was almost impossible in the camp.
- The data shows that 59.3% of the internally displaced people said that camp had no boundary wall.
- The data presents that 74% of the respondent were satisfied up to some extent on the availability of free of cost food in the camp to the flood affected people,
- The data determines that 56.8% of the internally displaced people were of the view that quality and hygienic food was not available in the camp to the affected people.

- The data express that 55.1% of the internally displaced respondents convey that in the camp food was no availability in adequate quantity.
- The data reveals that 56.1% of the internally displaced people were of the view that attitude of the food provider was very bad and they acted like boss and considered the internally displaced people as 3rd degree citizen and inferior.
- The data confirm that majority 57.3% of the internally displaced people think that the mechanism of the food distribution was not good and only the referred people got food and other facilities and the rest of the affected were deprived.
- The data exhibit that 60.1 % of the internally displaced people conveyed the idea that there was no proper system of cleanness and sanitation of camp on daily basis.
- The data display that 57.6% of the internally displaced people view that washrooms of camp washrooms were not constantly kept clean on daily basis, and people faced a lot of problems in regard of unhygienic condition of washrooms.
- The data clarify that 58.1% of the internally displaced respondents view that washrooms were not enough for the entire population of the refuge place.
- The data illustrates that 57% of the respondents were against this view and said that drainage system of camp was very poor as water was standing there which was breeding home for insects.

- The data prove that 55.6% of the respondents were not psychological supported in the form of counseling of their mental health after the flood in refuge place by any of the organizations.
- The data explains that majority of the respondents 64.1% were not supported that how they can prevented from distress and suffering to make their impact less on their daily life after disasters.
- The data demonstrates that majority 62% of the internally displaced people had no psychological support in the way of self encouragement in the wake of flood.
- The data shows that majority 64.4% of the respondents were not supported in rebuilding of their hope for future.

5.3 Conclusions of the Study

On the basis of the aforesaid findings from the collected data, following conclusions are drawn.

Internal displacement affects human beings in all fields of their life directly as well as indirectly in different shapes such a declined business and weaken fibers of social relations. Socio-psychological effects of flood on the area and its inhabitants have been dug out in the study. The data shows that distance of river has very close relationship with the damages. Homes and agricultural land near rivers were severely hit in the flood. Although availability of rivers render great benefits to the area and help them out in the development and growth in all sector and particularly in agriculture, but on the other hand it also endanger the progress of the area, in the form of flood.

Internally displaced people faced various type of psychological problem during the flood and the consequently in internal displacement. After the flood most of the people showed overreaction in normal situation, some of the people take no interest in routine tasks and family affairs, majority of the flood affected people remain gloomy and sad most of time and take no interest even in their own self. Greater part of the flood affected people became short tempered and feel angry every time. They felt fear especially at the time of rain and in raining season, which resulted in an abnormal reaction to natural calamities.

Most of the people had not evacuated immediately from their homes when the flood approached to their area because they under estimated the occurrence of flood and were not proper informed by the government, which gave serious harm to their property and threaten their lives. Various sources were used for the evacuation of people from their homes. Flood severely affected homes of internally displaced persons and curtailed the opportunities of jobs that is why most of the internally displaced persons stayed in the refugee camps for more than five months.

Hundreds of thousands of people were displaced due to flood in the area, and there was no proper camping for these displaced persons, refugee camps were overcrowded and the space available to each family was not enough for performing their normal life activities. In order to facilitate internally displaced persons, they were registered with different organizations such as social welfare department, Army, national nongovernmental and international nongovernment Organizations, nevertheless some displaced persons were not yet registered due to lack of awareness of registration process,

problems in access to registration office and problems for women, vulnerable and elders people in the camps and flood affected area.

In the recent flood school and colleges were very much damaged. Most of the schools remained closed during the flood which had increased the drop out ratio, and affected the level of students' interest in their study. Schools were occupied by the flood affected people as they had no other option for shelter, which affected the academic session of the educational year. Flood damaged school buildings and school property such as offices, classrooms, staffrooms, boundary wall, furniture such as staff chairs, tables, student benches and desks, library books, laboratories apparatus, sports kits, school record registers such as Stock, Admission, Exam, Fund, Attendance Registers.

Medical centers were very much affected in the flood which indirectly affects the vulnerable people from the flood. Besides other damages in the medical centers and basic health units, flood affected buildings and other property and equipments such as clinics, Laboratories, staff chairs, tables, stature, lab equipments, pharmacy and medicines Staff attendance register, admit/Discharge register and Stock register.

5.4 Recommendations

Disasters like flood could take place at any time and place and without any prior intimation, so it is better to know the options through which we can control them or at least minimize its adverse effects on the people and area. On the bases of above findings, and conclusions, the following recommendations for government, national nongovernmental and international nongovernmental organizations are made:

- Disaster reduction initiatives should be rooted in schools and in educational programmes, but also in social community programmes and activities. The ministry of education should establish a special course for the schools in the flood affected area on the effect of disaster on development that can be integrated with other courses in the learning activities.
- The government may set up mobile boarding schools in the flood affected areas, which accommodate both teachers and students in order to reduce dropout and maintain the interest level of the students. Government should give finance for maintenance rather than depending on students' parents who are in a grip of financially problems by the flood.
- Government and nongovernmental organization may launch and promote financial risk management and support flood affected people in the area in order to help out the people for standing on their own feet.
- Social reconstruction and rehabilitation of internally displaced persons need to be ensured through appropriate package of financial assistance and non interest bearing loans to the flood affectees.
- Government and nongovernmental organization should design programs for the pacification and proper counseling of the flood affectees facing psychological problems.
- The organizations should plan in advance the coping strategies that would enable them to handle the situation when ever such natural disasters happen in future.

- Effects of flood can minimize through construction of proper drainage system and increase numbers of spill ways in motorways exit.

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APPENDIX – A

INTERVIEW SCHEDULE

INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD

DEPARTMENT OF SOCIOLOGY

SOCIO-PSYCHOLOGICAL EFFECTS OF INTERNAL DISPLACEMENT

ON FLOOD AFFECTEES IN KYBER PUKHTOONKHWA

District i. Charsadda ii. Swat

Union Council _____

1. Gender of the respondent? (i) Male (ii) Female
2. What is your age (in complete years)? _____ Years
3. What is your marital status?
(i) Married (ii) Divorced (iii) Widow/Widower (iv) Separated (v) other _____
4. What is your occupation? (i) un-employed (ii) Government service (iii) Private service (iv) Business
(v) Farming (vi) Raising livestock farming (vii) Skill worker (viii) Non Skilled worker (ix) Housewife (x) Retired (xi) Any other _____
5. How many children do you have? (i) Male _____ (ii) Female _____
6. Do you have school going children? (i) Yes (ii) No (if No, go to Q # 8)
7. How many school going children in your family? (i) Boys _____ (ii) Girls _____
8. Do you have formal education? (i) Yes (ii) No (if No, go to Q #11)
9. From where you got your formal education?
(i) Public Institute (ii) Private Institute (iii) Madrasa
10. What is your level of education (in complete year of schooling)
0,1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,12, 13, 14, 15, 16, 16+
11. What is ownership status of your house?
(i) Own (ii) Rented (iii) Relative (iv) Rent Free (v) Govt. Provided (vi) Other
12. What is the structure of house you are living in? (i) Kacha (ii) Pakka (iii) Semi Pakka (iv) Joggi
13. How many members are there in your Family? (i) Men _____ (ii) Women _____
14. What is your Family type? (i) Nuclear (ii) Joint (iii) Extended
15. How many earning members are there in your family? _____
16. How much is your monthly income (in rupees)? _____ Rs
17. What is the total family income from all sources (in rupees)? _____ Rs
18. How many rivers are there in your area? i) No (ii) One (iii) Two (iv) Three (v) More than three _
19. What is the distance of nearest river with your home?
(i) Less than one Km (ii) One Km (iii) Two Km (iv) Three Km (v) Above three _____
20. Have you ever experienced flood before July 2010? (i) Yes (ii) No

21. What was the intensity of the flood? (i) High level (ii) Medium level (iii) Low level
22. How many time floods normally occur in your area? (i) Not occur frequently (ii) Once in year (ii) Twice in a year (iii) Three time in a year
23. How much water entered in to your home during the past floods? (i) No water in home (ii) Up to 1ft (iii) 2-4ft (iv) 5-7ft (v) Above 7ft
24. How much water entered in to your home during the July 2010 flood? (i) No water in home (ii) Up to 1ft (iii) 2-4ft (iv) 5-7ft (v) Above 7ft
25. Up to what extent do you feel that your family has been financially affected in the 2010 flood?

S.No	Statement	Up to great extent	Up to some extent	Not at all
1	Flood had damaged your house building			
2	Business setup was damaged			
3	Property documents were destroyed during the flood			
4	Academic credentials were destroyed			
5	Jewelry was lost during the flood			
6	Home appliances were destroyed in the flood			
7	Kitchen utensils were damaged in the flood			
8	Forests were affected from the flood			

26. Were people of other regions come for the tourism before the flood in your area?

(i) Yes (ii) No (if No, go to Q # 31)

27. Is there any significant decrease in tourists in your area after the flood? (i) Yes (ii) No

28. I would like to know the level of extent that 2010 flood affect tourism in your area.

S.No.	Statement	Up to Great extent	Up to some extent	Not at all
1	Hostels for the tourists were destroyed			
2	Tourist spots are no more attractive after the flood			
3	Roads were badly affect from the flood			

29. Up to what extent the local area affect from the flood in respect of tourism.

S.No.	Statement	Up to Great extent	Up to some extent	Not at all
1	Businesses suffer due to lack of money generated through tourism			
2	Exchange of culture between tourists and local area are affected			
3	Unemployment in the area affected by the natural disaster increases			
4	Purchasing power of the local people decline			
5	Mental stress rise among the people through decline of general economy in the area			

30. Do you have land? (i) Yes (ii) No (if No, go to Q # 38)

31. Which type of land do you have? (i) Barren (ii) Cultivated

32. Which type of irrigation system do you have for cultivation?(i) Rain pad (ii) Canal (iii) River (iv) Tube Well (v) Wells (vi) other

33. Which of the following crops were standing on your field at time of 2010 flood (indicate under cultivation area)?

S.No.	Crops	Cultivated land (kanal/gereb/paisa)
1	Wheat	
2	Sugar Cane	
3	Maize	
4	Rice	
5	Vegetable	
6	Cereal crops	
7	Other (specify)	

34. What was your total financial loss of crops in the flood (in Rupees)? _____ Rs

35. Do you have fruit orchard in your area? (i) Yes (ii) No (if No, go to Q # 38)

36. Which of your following fruit trees were affected in the flood?

S.No.	Fruits	No. of trees damage	Loss per tree (in Rupees)
1	Peaches (shaftalo)		
2	Apple		
3	Apricot (Khubani)		
4	Walnut (Ahroot)		
5	Plum (Alocha)		
6	Persimmon (Japni Fruit)		
7	Grapes (Angor)		
8	Other (specify)		

37. What was your total financial loss of orchards in the flood (in Rupees)? _____ Rs

38. Do you face loss of livestock during the flood? (i) Yes (ii) No (if No, go to Q # 40)

39. Which of the following animals were lost in the flood?

S.No.	Livestock	Number of Dead	Loss per animal (in Rupees)
1	Buffalo		
2	Sheep		
3	Goat		
4	Bull		
5	Cow		
6	Poultry		
7	Other (Specify)		

40. What was your total financial loss of animals in the flood (in Rupees)? _____ Rs

41. Have you face skin problems after the flood? (i) Yes (ii) No (if No, go to Q # 42)

42. Which of the following skin infections and problems raised by the flood in flood affectees

S.No.	Diseases	Yes	No
1	Scabies		
2	Acne (minor pimple & small Pitch)		
3	Onychomycosis (infection in edges of nail)		

4	Skin Abscess (skin Swelling)		
5	Erythroderma (redness of all skin)		
6	Cellulitis (deep skin infection)		
7	Dermatitis (inflammation of skin)		
8	Angular Stomatitis (cracks at the angles of the mouth)		
9	Athlete's Foot		
10	Xerosis (skin become dry)		

43. Have you face gastric problems during the flood? (i) Yes (ii) No (if No, go to Q # 44)

44. Which of the subsequent Gastric problems in recent and past floods of affected people.

S.No.	Diseases	Yes	No
1	Diarrhea		
2	Cholera		
3	Esophagus inflammation		
4	Acidity		
5	Other (Specify)		

45. Have you face eye infections in the flood? (i) Yes (ii) No (if No, go to Q # 46)

46. Which of the following eye infections of flood affectees in the recent as well as in the past floods?

S.No.	Eye infections	Yes	No
1	Eye Inflammation		
3	Eye redness		
4	Eye stye (small boil on eyelid)		
5	Puffy eyes (Swelling)		
6	Other (Specify)		

47. What type of injury you and your family faced during flood? (i) Wound (ii) Fracture

48. Fracture of bone of you and your family in the flood.

S.No.	Fracture	Yes	No
1	Greenstick fracture		
2	Simple fracture		

3	Compound Fracture		
4	Spiral fracture		

49. Do you loss any member in your family? (i) Yes (ii) No (if No, go to Q # 52)

51. What is your relation with the dead person?

(i) Brother/sister (ii) Parents (iii) Spouse (iv) Children

52. What was the age of dead person (in complete years)? _____ Years

53. Did the school/college in which your children are studding was damage in 2010 flood?

(i) Yes (ii) No (if No, go to Q # 53)

54. Which of the following losses occur in the school?

S.No	Particulars	Up to Great extent	Up to some extent	Not at all
1	Building			
	1.1	Offices		
	1.2	Stuff room		
	1.3	Classroom		
	1.4	Boundary Wall		
	1.5	Labs		
	1.6	Library		
	1.7	Toilets		
2	Furniture			
	2.1	Stuff Chairs		
	2.2	Tables		
	2.3	Student bench		
	2.4	Desks		
3	School Record			
	3.1	Attendance Registers		
	3.2	Admission/Withdrawal Registers		
	3.3	Stock Registers		
	3.4	Exam Registers		
	3.5	Account Ledger		
	3.6	Fund Registers		

	3.7	Official correspondence file			
4		Science Lab apparatus			
5		Sports kits			
6		Avoid Visual Aid (AV Aids)			

55. Was the health center operates in your area damage in the 2010 flood? (i) Yes (ii) No

56. Which of following damages appear in the health center during the flood?

S.No	Particulars		Up to Great extent	Up to some extent	Not at all
1	Building				
	1.1	Clinic			
	1.2	Operational theater			
	1.3	Laborites			
	1.4	Medicine			
2	Furniture				
	2.1	Stuff Chairs			
	2.2	Tables			
	2.3	Stature			
	2.4	Patient bed			
3	Record				
	3.1	Stuff attendance Regtr.			
	3.2	Admit/Discharge record			
	3.3	Stock registers			
4	Equipments				
	4.1	X-rays Machine			
	4.2	ECG Machine			
	4.3	Lab Equipments			
	4.4	OT Apparatus			
	4.5	Oxygen cylinder			
5	Ambulance				

57. How many months schools were remain closed?

(i) Remain open (ii) One (iii) Two (iv) Three (v) Above three

58. Do you think that drop out increase after the flood? (i) Yes (ii) No

59. Did your children shifted to other school? (i) Yes (ii) No

60. Up to what extent the lack of the following things affect your children academic performance during the flood.

SNo	Statement	Up to Great extent	Up to some extent	Not at all
1	Children take less interest in doing their home work			
2	Children school books have been lost			
3	Teachers were not coming in schools during flood			
4	Academic session was suffered a lot			
5	Performance in exam was not good			
6	Difficult for children to adjust in new school			
7	School are occupied by the flood affectees			

61. I would like to know your agreement/disagreement about the psychological problems faced by the flood affectees.

S.No	Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	People over reacted in normal situations					
2	Affectees remain sad and gloomy					
3	Taking no interest in family affairs					
5	Affectees become short tempered in dealing with people					
6	Taking no interest in routine work					

7	People remain fearful about natural disasters					
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62. How much water was in your home when you were evacuated?

- (i) Less than 1ft (ii) 2 ft (iii) 3ft (iv) 4ft (v) Above 4ft

63. In how much time you evacuated from home as flood approach in your area?

- (i) Immediately (ii) Within 24 hours (iii) Within 48 hours (iv) Within 72 hours

64. Which was your first destination after evacuation from home? (i) Relatives house (ii) Friend house (iii) School/College Ground (iv) Camp (v) Any other _____

65. Were you shifted to the camp from the temporary residence? (i) Yes (ii) No

66. Were you keeping on changing from one place to another? (i) Yes (ii) No (if no, go to Q # 67)

67. How many times you had been changed your place?

- (i) One (ii) Two (iii) Three (iv) More

68. What is your total duration of displacement in 2010 flood (in months)?

- (i) less than One (ii) 1-3 (iii) 4-6 (iv) 7-10 (v) above 10

69. How many people were there in the refuge place?

- (i) Less than 100 (ii) 101-500 (iii) 501-1000 (iv) 1001-2000 (v) above 2000

70. Do have you registration as IDP with any organization? (i) Yes (ii) No (if no, go to Q #71)

71. In which organization you are register as IDP. (i) Social Welfare Organization (ii) International Organization (iii) Army (iv) National Organization (v) Any other (Specify) _____

72. How many of your family members are register as IDP with different organizations? _____

73. What is the reason for no registration? (i) Lack of awareness (ii) Access to registration office (iii) Not having CNIC (iv) Missed registration deadlines (v) Problem faced by women (vi) Not interested (v) Others

74. Have you financially assisted by Government or Non Government Organization?

- (i) Yes (ii) No (if no, go to Q # 75)

75. How much financial assistance do you have received? _____ Rs

76. Where you used the financial assistance?

SNo	Purpose	Amount in Rupees (Approx)
1	Establish own business	

2	Expand already existing	
3	Construction of house	
4	Housing repairs	
5	Purchase of other assets	
6	Cover other debt	
7	Cover daily expenditures	
8	Cover medical expenditures	
9	Other	

77. I would like to know the extent of your satisfaction on various services provided to you in the camp during 2010 flood.

S. No	Statement		Up to great extent	Up to great extent	Not at all
1	Education	School were available for children education			
		Books were provided free of cost			
		Quality teaching stuff was available			
2	Health	Medical Centers were established for treatment			
		Doctors were available in the centers			
		Adequate paramedical stuff was there for care			
		Medicines were provided free of cost			
		Maternity services was available in the center			
		Female doctors were available in the camp hospital			

3	Protection	Proper shelter house was available			
		Appropriate security system for each family			
		Adequate camps for the people			
		Privacy was available for Affectees			
		There was boundary wall from the camp			
4	Food and water	Food was provided in camp free of cost			
		Quality food was available			
		Adequate quantity of food was available			
		Attitude of food provider was good			
		Proper mechanism was there in time of distribution of food			
		Self cooking facilities was available			
		Fuel was available for the cooking of food			
5	Sanitation	There was proper cleaning of camp daily			
		Separate toilet for female was available			
		There was proper cleaning of washrooms through out of the day			
		Washrooms are in access for both male and female			

		There was proper drainage system in the camp			
6	Psychological support	In camp counseling for mental health of the flood affectees are provided			
		Help in Prevention of distress and suffering developed from flood			
		Increase self encouragement of the affectees			
		Rebuilding of hope for future was developed in Affectees			

78. Please give suggestion/s that what type of facilities should provide in displaced area.

Charsadda - Affected Union Councils and Damaged/Destroyed Houses

04 August 2010



Legend

- 1 Dot = 100
- Destroyed House
- Damaged Houses

Water Bodies

- Flood Water
- Pre-flood Water

Affected Union Councils

Disclaimer:
The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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