

iii. Not at all	9	3.9
Total	233	100.0

Tourism Affected Business

The above table shows information about the area that were visited by tourists where business suffered, effect on exchange of culture, increased unemployment, decline in the purchasing power of common man, and rise in mental stress. The data shows that 85.4 percent of the respondents viewed that business of the area was severely affected by floods, because majority of people were concerned directly and indirectly with tourism and its related activities. While 11.2 percent of them told that businesses were damaged to some extent, only 3.4 percent of the respondents were of the view that flood has less directly affected business of the area.

Tourism is one of the important and most prominent ways of exchange of culture among different societies and in instrumental in familiarizing the local and alive culture. In the recent floods, along with other impacts, one of the bad impact was on the culture exchange, due to damage to tourist spots, destroyed tourist hotels, and the deteriorated conditions of the road, there is a significant decrease in recorded tourists in the area which on one hand affected economy of the area and on the other hand affected the cultural exchange among other people in and outside of the country. The second part of the table shows that a very large section of the respondents (96.2 percent) some part of the sentence seems to be missing here, another group of respondents, which comprises of 82 percent, were of the view that cultural exchange is severely affected by the floods and 14.2 percent told that its effects were not that much severe while only a smaller part of the sample (4.3 percent) of the respondents said that floods did not affect cultural exchange because the people from outside come for relief activities, which may prove helpful for exchange of culture in the area.

The above table shows employment conditions in the district Swat after July 2010 flood which are affected by the lack of tourism in the area. People in the area were directly or indirectly concerned with tourism, which was badly affected by the floods. The table clearly shows that 84.1 percent of the respondents were of the view that unemployment increased in the area after the floods because of significant decrease in the tourist and business activities due to which people were in search of jobs, 14.2 percent of the respondents were of the view that up to some extent floods increased the level of unemployment in district Swat. Data in the first table clearly mentioned that only about 12 percent of the respondents were in government jobs and the rest of the people were in private employment like running their own business, working in hotels and restaurants as labor.

The table no 4 illustrates the fluctuation of purchasing power of general people after the floods in the area, due to decrease in tourism. The data shows that purchasing power of the people decreased after the damage experienced by tourism. A significant portion of the respondents (96.5%) were of the view that purchasing power of the common people declined after the weakening of tourism, 81.5 percent respondents told that all the members of the community were directly or

indirectly affected by flood, as their business and services were disturbed, whereas 15 percent were of the opinion that purchasing power was affected to some extent only. A smaller portion (3.4 percent) of respondents recorded that purchasing power is not affected by flood or tourism; these respondents were mostly in government services.

The above table clearly shows that weakening of tourism industry affects all aspects of common people, such as it adversely affected business in the area and purchasing power of the people on one hand and on the other hand people are mentally disturbed from such situations. The data shows that a very large portion of the respondents (96.1 percent) told that people were mentally disturbed from the floods induced tourism which included 80.3 percent thought that it severely affected people's mental condition, while according to 25.9 percent respondents its affects were up to some extent. Whereas 3.9 percent of the selected people were of the view that mental level of the common people were not affected.

Table 5: Relationship between flood and Tourism

Intensity of flood (Level of flood)	Tourism effected			Total
	Great extent	Some extent	Not at all	
Less Severe (2-4 ft)	46.4% (13)	35.7% (10)	35.7% (5)	12% (28)
Moderate (5-7 ft)	81.5% (145)	18.5% (33)	.0% (0)	76.4% (178)
More severe (<7 ft)	96.3% (26)	.0% (0)	3.7 % (1)	11.6% (27)
Total	79 % (184)	18.5% (43)	2.5% (6)	100% (233)
Chi Square value = 44.535 df = 4 Significance = 0.000				
Gamma value = -.701 Significance = 0.000				

Table No. 5 depicts the close relationship between independent variable like level of water in 2010 floods and dependent variable that is affected tourism. Tourism in the area was badly affected like access roads, tourist spots, hotels and restaurants were damaged, which decreased the number of tourists in the area. Level of water was measured by its height in the affected people's home during and after the floods. The table under discussion shows that tourism is more affected in the area where level of water was very high and situated in close vicinity of rivers. The data was tested by the three test statistics like chi square, gamma and lambda. Value of chi-square test was 44.53 at .01 level of significance gamma value was -.701, which is the evidence of the direct relation of flood water and tourism effects.

4. Conclusion

Tourism is directly affected by floods as the tourist spots are in vicinity of rivers which enhance its beauty on one hand but it poses a regular treat for these spot in particular and tourism in general. July 2010 floods in Pakistan changed the entire situation in the KP province and snatched the serenity from the so-called heaven Swat. Significant decrease in tourists' number is the result of flood that devastated the tourist spots, access roads, hotels and restaurants. This devastation left adverse effects on the business of the area which increases unemployment ratio and poverty at large scale. Cultural exchange among the local people and tourists is greatly affected by the recent floods.

5. Recommendations

[12] Werritty, A. & Chatterton, J (2004) *Future Flooding Scotland*, London: Office of Science and Technology.

Flood is a natural disaster and no one can stop it or its adverse effects completely, nevertheless we can reduce its influence on the life of people at some level. Governmental and Nongovernmental organizations should work on capacity development through training of risk and crises management plans, as larger the capacity to disaster respond lower will be the risk. Risk is the product of vulnerability and probability of a disaster divided by capacity to cope it,
$$\text{Risk} = (\text{Probability of a Disaster} \times \text{Vulnerability}) / \text{Capacity}$$

The effects of a disaster like floods can be minimized if communities are informed in prior about possible hazards (UNEP, 2008). The direct effects of flood on the tourism can be controlled through establishments of strong river banks that resist the flood water from overflow. Government should prepare disaster management agencies for the time of emergencies like floods, and earth quakes etc. to reconstruct and rebuilt the access lines by using heavy machineries, and construct them up to the mark that local and international tourists face no problems and difficulties. Local handicrafts are the center for the tourists and it may be preserved through mechanized production in industries. The natural beauty and serenity of the area could be enhanced through remodeling the tourist spots and create more attractions.

References

- [1] Du, W., FitzGerald, G.J., Clark, M. & Hou, X.Y. (2010) Health impacts of floods. *Prehosp Disaster Med*;25(3):265–272
- [2] Haines A, Patz JA: Health effects of climate change. *JAMA* 2004;291(1):99–103.
- [3] International Centre for Responsible Tourism (ICRT) 01/01/2005
http://travel.independent.co.uk/news_and_advice/story.jsp?story=597146
- [4] Khan A., Khan M. Ayaz, Said A., Ali Z., Khan H. Ahmad N. and Garstang, R. (2010). Rapid Assessment of Flood Impact on the Environment in Selected Affected Areas of Pakistan. Pakistan Wetlands Programme and UNDP Pakistan. Pp 35.
- [5] Murphy, P.E. & Bayley, R. (1989). Tourism and Disaster Planning. *Geographical Review*, 79(1): 36-36
- [6] National Weather Service. Weather glossary. Available at <http://www.erh.noaa.gov/er/rnk/glossary.html>. Accessed 29 August 2008
- [7] OCHA. (2011). Pakistan Humanitarian and Early Recovery Overview (HERO).
- [8] Reliefweb. (2010). Pakistan: flood-2010. Available at: Pakistan_Floods__Jul_2010-OCHA-88FJ4Q
- [9] United Nations Environment Programme (UNEP). (2008) Disaster risk management for coastal tourism destinations responding to climate change: A Practical Guide for Decision Makers. UNEP; Paris
- [10] Viner, D. & Agnew, M. (1999). Climatic Change and Its Impacts on Tourism. Norwich: Climatic Research Unit, University of East Anglia
- [11] Vlachos E. (1995). socio-economic impacts and consequences of extreme floods. hydrometeorology, impacts, and management of extreme floods: Perugia