

## **Women in Disasters: Their Vulnerability and Role during Flood of District Jaffarabad, Balochistan**

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### **Abstract**

*Pakistan is prone to many natural disasters; among these floods are also a serious hazard. Flood affects both men and women but it has great gender discrimination. Women are more vulnerable to flood related problems but they show courage and creativity to survive. The main purpose of this study was to assess women's vulnerability to flood and identify their role in pre-, during and post-disaster scenarios. A sample of 150 women respondents was selected from District Jaffarabad, Balochistan using simple random sampling. The results showed that the most women of the study area are vulnerable to flood because of geographical location, poverty; social norms, gender discrimination and lack of education. Nonetheless, in spite of these glitches, women still are performing their major role in disasters as an economic contributor at the household level and a mobilizer at the community level.*

**Keywords:** Disaster, Flood, Women, Balochistan,

### **Introduction**

Disasters such as earthquakes, wildfires, hurricanes and floods leaves devastating effects on people, environment, population growth, economies, climate change, increase in urbanization, pollution, social and economic disparities and unsustainable development are playing vital role in increase of global disaster events like flood, earthquake and droughts (Drolet et al.2015). According to report of Sendai Framework for Disaster Risk reduction 2015-2030 in period of ten years from 2005 to 2015 disasters crosswise the world displaced 144 million people and 1.5 billion others and caused economics

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losses of US \$1.3 (UN, 2015). Disasters strike across the globe in one or another form. Disasters are not specific to any religion, ethnicity or geography it is evident from many events in the world as 2010 flood hit the Pakistan, Sandy hit the America, earthquake hit the Japan, 2011 fire hit the Australia and drought hit the Africa. Disasters do not differentiate and it has same effects to all but it is the men behavior that divert the impact of disaster. Disasters are main issue of man which they are facing in 21<sup>st</sup> century. In 1990 after affirmation of international Decade of Natural Disasters, some important effort has been done to divert the impact of disasters but mostly nature of disasters is given importance the social impact of disaster is neglected. Gender biasness is one of the major issues in disaster mainstreaming (Iqbal et al.2013). Women and girls who consist of over half of 200 million people annually affected by natural disasters and women are at high risk then men in natural hazards, the problem is practically high at low income countries (Alice Fothergill and Lori Peek, 2004).

Women mortality rate is higher than men during the disasters and in tsunami 2004 over 70 percent deaths of women reported in affected areas (Oxfam International 2005). Women are especially hard hit by natural disasters and it is the result of social inequalities which is increasing the women vulnerable. The vulnerability of women in disasters is increasing due to many other factors such as lower political, social and economic status, no place in decision making and traditional gender biased domination. Women face more losses of life and property in natural disasters due to high rate of poverty and social constraints. Women's role in taking care of household and providing food extends during and after a disaster. For instance, in times of drought and flood their responsibility increases to provide food to their family and experience shows constraints in access of resources. Their special health needs are neglected, especially the pregnant and lactating women are ignored. However for building disaster resilient communities it is important to strengthen the most vulnerable group (Vasudha Gokhale & Professor, Dr. B.N2008). Women participate a important role in all steps of disaster and climate risk management and they are the first to respond and take important resources to disaster and climate risk reduction and recovery (Lane & McNaught 2009). Thus keeping in view this background, the aim of this study is to assess women's vulnerability and their role in disaster risk management in case of 2010 and 2012 flood of district Jaffarabad, Balochistan.

## **Materials and Methods**

### **Selection of Study Area**

The name of District Jafferabad was driven from the name of great leader Mir. Jaffar khan Jamali. The district was a part of district Naseerabad and it got separate status in 2002. Jafferabad is also a name to town in district. The district is located in south-east of Quetta capital city of Balochistan, the north area is linked with Naseerabad, shares the southern boundaries with the Larkana and Jacobabad Sindh province and in east of Jaffafabad there is District Dera Bugti. The District is productive highly in sector of Agriculture and the canals from Indus River are main source of water. The weather of Jaffarabad is excessively hot and extremely moist in summer season, especially in the Pat Feeder area where rice is cultivated. Winter is pleasant and it rains mainly in July and August.

According to the 2017 census the population of Jaffarabad was 513,813. Total number of households is 79,273. Urban population is consist of 158,005 individuals and 23,250 households and rest of the 355,808 population live in 56,023 households rural areas.

### **Women Role and Status**

The status of women is same in Jaffarabad as in other districts of Balochistan. The economic power lies with men. Tribal heads are predominantly male. The women literacy rate for 15 years age-group and above is very low 18.5% compared to that of male literacy rate 34% (Balochistan MICS 2004) because of socio culture norms in the region. The female contribute in economic burden of their families and do their domestic work and also work in fields.

### **Selection of Sample Size**

Primary would be collected through simple random sampling technique. It is mostly used technique for selection of random sample. It is a method for selection of essential sample size from the given population and it provides equal chances of selection to each element. Selection of sample size will be based on population of female in the study area, according to the 1998 censuses the total population of women is 108,963 in Tehsil Jhatpat rural., calculation of sample size was based on Arkin and colton (1963) sample size formula is given bellow.

$$n = \frac{NZ^2 \times P(1-P)}{Ne^2 + Z^2 P(1-P)}$$

Equation 1

Thus a sample of size 150, with a confidence interval of 95% and the degree of variability (P) of 50% at 7% sampling error.

### **Collection of Primary Data**

Primary data was collected by using different techniques such as questionnaire survey, focus group discussions, observation and interviews from key informants. The questionnaire contained the characteristics such as socio economic and demographic of respondents and their households including women's roles and responsibilities and their preparedness for upcoming disaster (flood) and their coping strategies during disaster (flood) and about past experiences of women in disasters.

Check lists will be prepared for Focus Group Discussion (FGD) and Key informant interviews. Checklist would be formulated to assess the women's capacity, decision making, coping strategies and indigenous mechanisms for disaster management.

### **Secondary Data**

Secondary data was also collected along with primary survey from different government departments as women development etc and non government organizations and other books, journals, research papers and annuls reports.

## **Results and Discussion**

### **Respondent's profile**

In this research all respondents were females. The major portion of the respondents were married (70%), 10% are unmarried, 7% are widower and 1.3% are divorced respectively. Most of them were illiterate about third fifth and minimum number 4.7% respondents had primary education, 6% are having middle level 9.3% are metric 6.7% have secondary level and Only 7.3% respondents are graduates. Less than one fifth of the respondents were students, 11% were Government servants, and 6.7% had private jobs, a majority of the respondents 60% were house wives, while some of them 4% were daily wagers.

Table 1: Summary statistics of respondents profile (n=150)

Variables		Frequency	Percentage
Education	Illiterate	99	66.0
	Primary	7	4.7
	Middle	9	6.0
	Metric	14	9.3

	secondary	10	6.7
	Graduate	11	7.3
<b>Occupation</b>	Student	16	10.7
	Government job	17	11.3
	private job	10	6.7
	House wife	90	60.0
	Daily wage	6	4.0
	Mid wife	11	7.3
<b>Marital Status</b>	Married	106	70.7
	Un-Married	16	10.7
	Divorced	2	1.3
	Widow	26	17.3

### Information about flood faced by respondents

The table 2 is showing the results of respondents that whether they were having or not the prior information about flood. Almost all of the respondents said that they had access of information of flood, while only 3.3% regret to have information of flood. The major source of information were Television (48%), Mobile phones (22%), Relatives (10%) and Neighbors (20%). So, while analyzing the Table 2 it is confirmed that women had total information about flood. Most of the population depends on local technology for disaster signals Direction of wind, temperature, rainfall and cloud cover, Still in present time the people do not believe on modern techniques of disaster forecast they still apply their local patterns to face the disaster, they keep close observation on monsoon and transformation of weathers for disaster prediction.

Table 2: Respondents' access to flood information

<b>Access to Flood Information</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	145	96.7
No	5	3.3
Total	150	100.0

### Information about Social norms

The study area is considered as a strictly cultural male dominated area so the social norms like observing *parda*, women staying at home permanently, women and girls are not allowed to learn swimming and climb on trees, Table 3 highlights the effects of such restrictions that how these increased the vulnerability of women in flood. Here again almost all (95%) of the women respondents agreed that due to these restrictions many women and girls lost their lives, many were psychologically disturbed. This concept was found in the whole study area.

Table 3: Respondents' view on social norms affecting the women in flood

	Frequency	Percentage
Yes	142	94.7
No	8	5.3
Total	150	100.0

### Location of and Satisfaction on Temporary Shelter

The result shows that almost half of the respondents took shelter at evacuation center Located at Jamali by-pass. More than one-fourth of them took shelter at roads; about 12% used the schools as temporary shelters. A nominal number of respondents answered that they migrated to their relatives' home in different cities and/or used their own homes located at various cities as residence during the flood.

Table 4: Location of temporary shelters during the evacuation period

Location of Temporary shelters	Frequency	Percentage
Schools	18	12.0
Evacuation centers	78	52.0
Roads	42	28.0
Relative home	7	4.7
Personal home	5	3.3

Regarding the satisfaction on the basic needs and facilities in evacuation centers and temporary shelters, the study shows that almost all respondents faced problems and shortage of facilities in temporary shelters. Only a minimum number agreed that they had facilities because these were living at

their own homes or at relatives home. One the major problem was lack of separate places for girls and women which affected their privacy. There was insufficiency of basic necessities like water, light, cooking arrangements medicine and clothing in temporary shelters. From the bellow table, we can analyze that most of the respondents tolerate different kinds of physical and mental torture at the time of disasters. Disaster leave devastating impact on all areas of women life and causes changes in social, emotional, psychological and physical behavior.

Table 5: Satisfaction on facilities at temporary shelters (n=150)

Satisfaction Level	Basic facilities		Provision of food		Security facilities	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Strongly Dissatisfied	2	1.3	3	2.0	3	2.0
Dissatisfied	143	95.3	146	97.3	145	96.7
Neutral	0	0	1	0.7	0	0
Satisfied	0	0	0	0	0	0
Strongly Satisfied	5	3.3	0	0	2	1.3

### Women's Participation in decision making

This table 6 is showing the results of women participation in making the decision. The results of Chi-square show that there is very strong significant relation between higher age and participation in decision making. For instance, in case of our findings, respondents having age 50 and above were taking part more in decision making then other age groups. It is fact of our society that the decisions of elders are given more importance. It has been found that in the rural areas younger women are not allowed for participation in decision makings or their decision is not given considerable importance. It was verified in the survey that whether the concept is true or not and it was confirmed.

Table 6: Participation of women in decision making by different age groups

Age group	Bellow 30		30-50		50 above	
Participati on in decision making	Frequen cy	Percenta ge	Frequen cy	Percenta ge	Frequen cy	Percenta ge
Yes	8	12.9	26	37.1	17	94.4
No	54	87.1	44	62.9	1	5.6
Total	62	100.0	70	100.0	18	100.0
Chi square = 41.912***						

**Note:** \*\*\* indicates the significance level at 1%.

### Women's Contribution in community Mobilization

The findings of women contribution in community mobilization are presented in Table 7. It was verified that there was a high significant association among education and community mobilization of females in the study area. The women who were literate had more contribution to mobilize and sensitize the women for their basic rights. One of the respondent shared her contribution for sensitization of women about their rights,

*“After flood all I felt that women were in a worse condition because they lacked confidence to face the situations and elaborate their problems, then I started teaching the young girls of my area that how to communicate with people and how to convey their message in a good way so that problems could be solved”.*

Table 7: Participation of women in community mobilization by education level

Literacy	Literate		Illiterate	
Participation in community mobilization	Frequency	Percentage	Frequency	Percentage
Yes	19	19.2	27	52.9
No	80	80.8	24	47.1
Total	99	100.0	51	100.0
Chi square = 18.032***				

**Note:** \*\*\* indicates the significance level at 1%.



### Contribution as savings

Table 8 is showing the results of savings of women, it was observed that there proved a relationship between occupation and savings with a significant Chi-square value. The females who were doing any government or private jobs have their own income so they were able to save more than the women who didn't have any source of income, but still the housewives have also contribution in savings they have small *mohalla* (village) committee where they contribute money which they earn from different sources as embroidery, working in fields and the educated women from their jobs and in case of need anyone of them can use it.

Table 8: Contribution in savings for household by women

Occupation	House wife		Job Holder	
Contribution in Savings	Frequency	Percentage	Frequency	Percentage
Yes	36	40.0%	41	68.3%
No	54	60.0%	19	31.7%
Total	90	100.0%	60	100.0%
Chi square = 11.568***				

**Note:** \*\*\* indicates the significance level at 1%.

### Conclusion

This study was an attempt to study the role of women in flood affected area of Jaffarabad. From the study it is concluded that women play a strong role at household as well as community level in case of serious disaster events. Women had information about the environmental changes, and flood crises. The women who were educated were more aware and trained to play their role. On the contrary, women were bound to be at home, to be in *parda*, not to climb at trees, not allowed for swimming which has weaken the skills of women. But they had many roles which improved the whole community in minimizing and coping with disasters. It is suggested that education and disaster related trainings must be entertained which provide energy, power and confidence to the women to present their role in an efficient and effective way in case on any disaster.

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