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Earthquake and the Vulnerable Women of Quetta, Balochistan:

By

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Abstract:

The main objective of this paper encompasses efforts to assess the vulnerabilities of women of Balochistan in an earthquake disaster. Data was collected through questionnaire survey among 120 women from households and educational institutes using sample random sampling. There is an interrelation between the social and physical elements and they both stimulate each other and influence their modalities. The women's vulnerability estimation is deliberated through the value of social relationships and networks that complement the economic capital for economic growth of a community, monetary, edification and corporeal elements. Results revealed that owing to the depleted degree of edification and the elevated ratio of population aged below fifteen years shows an adverse situation for the government and community to evacuate such a huge proportion of children's during disasters. Higher the vulnerability of women shown in economic sector as the women are more vulnerable. Women unemployment and decision power taken by men are the major vulnerable components in the economic sector. Lastly in the institutional vulnerability women's lack of preparedness is the higher vulnerability component which increases the women's vulnerability. It is important to lay emphasis on the physical vulnerabilities of women by guaranteeing that their home, workplace is safe and they are specifically cared for after an earthquake hits. Committing to take concrete measure in reducing social powerlessness of women and also assuring that women are given a fair

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contribution and involvement in the disaster basic management fields but not over-burdening them with additional work.

Keywords: Vulnerability, Earthquake, Gender, Marginalization, Restrictions

Introduction:

Natural catastrophe is the key hostile occurrence due to earth's innate course of action. It comprises of earthquakes, volcanic eruptions, floods, Tsunamis and other geophysical events. Those regions which are influenced by a natural hazard are likely to face socio-economical corollaries that can greatly disturb the routine lives of the effected society. Human and animal loss, loss to homes, buildings & estates, community health problems, economic distress, societal inequalities & prejudice are only some illustrations of probable effects of natural disaster. Earthquake is known to be one of the most devastating natural disaster. Due the liberation of the elastic energy within seconds, earthquake initiates as a result of abrupt momentary movement of the land. The stationery buildings or structures faces extreme stress in its foundations as the earth moves from side to side hence weak structures often cannot bear this intense movement and often slams to the ground causing extreme losses to human and property itself. It is so sudden and extreme that often it doesn't give enough time to people to move out before its structure collapses. Earthquakes can also be initiated due to the rapid and impulsive shifting and movement of rocks underneath the earth surface (Shearer, 2009).

Earthquake being one of most disastrous & sudden phenomena can immediately disclose the most vulnerable buildings, households and people living in the society or of the entire country at large. Within seconds the entire system set in place is shattered at every level ranging from personal level to most sophisticated government level systems. With the happening of a seismic event, the government or individuals of community experience the many defects in their life societal planning, the building structures they developed and the materials they used, the sites they selected for development, hence reveals imperfections which were once assumed flawless in every aspect.

Vulnerability can be defined as the poor or weak capability of a person or group to foresee, handle, withstand and salvage from the effects of a natural or man-made hazard. People's state and ranking of vulnerability can be ascertained by the economical, physical, communal and political aspects & features. Hence these features can or will put off and foil the ability of the community to recuperate from hazards. It is very obvious that poverty plays a key role in promoting and enhancing vulnerability.

The areas prone to probable hazard are usually swarmed with poor people because they live and work there and cannot afford to live in developed safer areas; furthermore, they lack substantial resources to muddle through a disaster. A hazard becomes a disaster when the people living in those areas are or become vulnerable to such natural or manmade hazards. The developed and prosperous countries across the globe are proficient and have improved capabilities to withstand and trounce the influence of likely threat or hazard. Such countries are extra vigilant and ready to tackle hazards because they have a very functional risk management and vigilance scheme in place that help reduce their people's vulnerability with enhanced coping capacity, hence they are resilient and will restore promptly then poor countries (Wisner, 2004).

Women and Disaster:

Women are frequently seen in an underprivileged state in many developing, as well as developed countries, the support of gender equivalence means a specific consideration should be given to women's empowerment. The importance of highlighting women is because of the experienced nonexistence of their vital role in disaster management and the regular need to highlight their specific requirements and sufferings. In the same context men too have their certain but important roles, requirement and experiences, in major societies, they actually hold a more dominating and powerful position hence are comparatively in a better state when assessing social justice. Women confront much bigger danger and hostility after a natural disaster specifically the elderly women, the handicapped women, widows with children, unmarried women, women controlled / led homes and young girls. Encountering the pre-existing and ingrained prejudice and inequalities in everyday lives, women's vulnerability gets a supplementary boost in the course of disaster or after the crisis. It's not only their gender that is responsible for such vulnerabilities and injustice, their conjugal status, religion, race, age, ethnicity, financial position play a vital role in exaggerating such bias faced by women (Women, 2015). When a disastrous earthquake occurs, the communal infrastructure and system of life is radically changed. Its effects are usually on a macro scale, causing destruction of all the communities in its range, damaging the transport systems, the crumpled food orderliness and livelihood, the collapse of medical facilities, societal systems and communication, extensive poverty and collective remoteness. The vulnerability and buoyancy of women in earthquake disaster administration is feebly comprehended and partly recognized, due to which they are believed to be among the highly risked community groups. While planning for the recovery and reconstruction the women concerns

and requirements are not considered and tackled in the early disaster assistance work or planning. Women who face gender biasness, deprived of power due to transformation obligations, inhabit susceptible environments, and/or reside in the neighborhoods where majority of men relocate in search of aid, will most probably face inexplicably than males through and following earthquake disaster. It is imperative to acknowledge that during the aid and rehabilitation, women who survive the disaster are usually in the combat zone facing all the hardships in order to protect and support their families (Hamilton & Halvorson, 2007).

Earthquake Vulnerability:

Earthquake poses a generalized and indiscriminate effect on an area's people and its infrastructure. The scale of damage is not limited to the buildings and infrastructure only rather it extends its devastation to the very foundation and basis of community, its economy and culture. In the wake of earthquake, the socio-economic and cultural characteristics are disrupted and chaos stirs up. The vulnerability of any earthquake hit population of country which can disturb connection to its economic, physical, social and Institutional bond or interconnections between the diverse population, and the failure to reinstate these interconnections to the condition that existed pre-earthquake may be designated as social vulnerability to earthquakes.

Women's Vulnerabilities:

At whatever point a disaster strikes the diverse types of vulnerabilities of the two men and women gets uncovered and however the course of history and from encounters exchanged from time to time women have been effected more than men and they have been more powerless, henceforth it is crucial to think all endeavours to maintain and inspire women standing up to debacle and to improve their abilities and capacities to handle such like antagonistic conditions. In like manner, it should not be assumed that while delivering the significance of women part in a debacle is the main arrangement and can be more powerful than men, rather women ought to be assigned in the reconstructive procedure to help in the endeavours and limit the vulnerabilities of women in misfortune. Thus it is fundamental to uncover the exact impacts of the fiasco on the women inside the inside those affected territories or nations in order to devise important measures and plans going for decreasing fatalities and empower them for urgent recovery. Accordingly, rebuilding of the what have been destroyed ought not be the main concentration, rather ought to likewise be taken as a risk to inspire the most hindrances and denied units lessening their powerlessness, advance gender orientation adjust and improve the dynamic conditions for females, especially those women who are driving

their families (Enarson, 2006). Marginalization is where people and whole groups of individuals are deliberately deprived from having extensive access to different rights, openings and assets that are regularly accessible as a national of a state. Women may not be especially powerless qua women, but rather more usually poor women, old, poor women, or old – poor & minority women are generally powerless (Wisner 1993: 22, cited in (Hewitt, 1997): 148). Those women who endure the disaster along with their families undergo sensational decreases in nourishment, energy, dress, and other provisions of life, along these lines prompting instances of presentation, newborn child and infant mortality, frosty anxiety, and other therapeutic crises. During this confusion, women are turned into a principal drive in the battle for survival as people are administering the hurt and the weak. Analysts have started to recognise the way women specifically can be helpless because of cultural norms and due to basic social procedures. Gender likewise converges with class, race/ethnicity, age, and physical and mental capability and can't be believed to be a homogeneous classification itself (Izquierdo, 2015).

Physical Vulnerabilities:

In order to attain a comparatively improved situation and state than others post-earthquake, a probably highest conclusive reaction is necessary. The reason in measuring the ability for attaining similar situations by the individuals and women is to check existing corporal environment’s security and amenities, a person’s readiness along with improvement methods and ability of self-reliance, opportunity to obtain aid, ability to assist other people of the community, communal and financial conditions and in conjunction with holding rights and capital for repossession (B. Sungay, E. Cakti, & Erdik, 2012). The loss of home and the monetary strain caused by the seismic tremor makes life very difficult for women. As essential guardians inside the family, they attempted to give sufficient nourishment and other fundamental necessities to their babies and other dependants of the family. They can't give enough nourishment to their kids and they are likewise worried that due to the additional financial weights, they would not be able send their kids to schools.The clearing of leftover after an earthquake, finding and managing household items, regrouping families especially children and women, protecting, making shelters, cooking, etc. are but only few of the important list of work concerns of women in such a cataclysmic situation. A remarkable decline in provisions, energy / fuel, garb, and related fundamental supplies is undergone by the extant women and their kin thus resulting in experiencing ordeal, deaths of babies and children, extreme weather and other health related crisis. At the core of such turmoil women transpire the

elementary drive in the effort for endurance and the front line facilitators to care for the wounded and the deceased (Hamilton & Halvorson, 2007). Women especially pregnant and lactating women have a larger requirement of food and nourishment because of their medical condition and child dependency; hence they need more nourishment and care and are unable to move at these times which increase their vulnerability. Having a comparatively extended life then their men can probably result in augmented degree of poverty in the elderly women (Fordham, 2000).

Social Vulnerabilities:

The subsisting vulnerabilities in the society are exposed as earthquake occurs. The echelon of association a community or populace achieved determines its already existing vulnerabilities. Societal and financial issues, like displacement, public health issues (e.g. contaminated water, plague outbreak, undernourishment) and poverty are associated to natural disasters. The population, their families and commune and the habits of life are actually investigated in social vulnerability evaluation instead of orderliness of the buildings. They lack resources and a platform to highlight their problems and miseries therefore, have no influence on the authorities to transform and revolutionize their lives in the process of development. To summarize, these disparaged are the most vulnerable in any society. The disparaged are feeble part or faction of the community who have been hard-pressed to the confined of survival due to past personal interests due to poverty, race, gender, age, and religion etc. It's significant to deliberate upon the blend of these features as being more vital in contrast to assessing it particularly or individually. Elderly women and children who are poor, related to low sect, race or a minority are the most vulnerable part of the society. These individuals or faction of people possess almost no resources and chattels and has little or no platform to raise and advocate their issues to the concerned authorities. They are in an invariable conditions of crisis and hence are the deserted and affronted at every stage and mode of life. Determining factors social vulnerability to earthquake include demographic features, societal classification, level of education, household nature (basic social unite or single family, joint family), unity and organization amongst fellow citizens. Those societies which is divided in to several classes based on their financial position, wealth, social order, religion and ethnicity particularly those communities where no attempts are made for its unification and dismissal of its differences are specifically deemed to be more vulnerable (ADPC).

The earthquake upsets normal plans of travel, separates friends, families and fellow citizens, breaks of completely demolishes homes, doors,

windows etc. which in normal circumstance were imparted certain level of security. Social vulnerability is an array of circumstances that has no role in creating the necessary atmosphere for developing building codes executed in the society or the country. Women work load increases because of shortage of water, collecting fire woods or fuel, cooking utensils and different fundamentals after an earthquake hits. In spite of the fact that a while later they do get different types of help all the time, however that too are usually dependant on their surviving men to do these tasks and women get no inquiry and assistance for their needs, nor are they permitted to go out looking for help. Due to the tribal set in Balochistan women are not permitted in any situation to leave where they are placed or resided. They are totally immobile and helpless bounded to wait for their men to aid, despite in pain, misery or extreme need of urgency of food, shelter and health etc. This makes them extremely vulnerable under earthquake and other natural disasters. Families with women as the leader of the household and families having elderly women battle the most in the rapid consequence of the earthquake. They are given the task of managing stockpiling supplies, collection of building materials for temporary shelter which is physically demanding. They experience issues getting the building materials, for example, wood, plastic, press sheets and apparatuses required to develop their shelter. Gender based separation or oppression of women are the most well-known issue predominant in our undeveloped region. This earlier gender orientation learning was reflected in the post-debacle help prioritization, where practically no consideration is given to women's specific requirements for their own wellbeing and security. The earthquake additionally influences women and children as they battled with keeping up their own cleanliness in the temporary shelters. With the vast majority of Since the female individuals from the families are in charge of a large portion of the family tasks, they are compelled to handle issues, for example, absence of water and sustenance supplies.

Economical Vulnerabilities:

As earthquake occurs it particularly has more adverse effects on women. In almost all developing countries they are financially dependent on men which make them even more vulnerable. They are effect in two ways i.e. by the disaster itself and are also prey to the male governed societal system which further increases its pressure on them as disaster strikes. Families affected by earthquake are compelled to shift out into open air or shelter tents because their homes are either damaged or feeble to collapse. The overall economic setup of the household reduces leading to additional stress. Women though try to cope such financial distress by engaging in to

auxiliary work like carpet weaving, sale of homemade snack and food items, tea, knitting sweaters, hats and gloves, handicrafts, cloths stitching, agriculture labor, and daily wage labor work at other people's homes to get added income to support their families. This engagement in numerous types of profit earning initiatives is aimed at sustaining their family and to safeguard them through such instance of financial vulnerability. There are always complains of biasness and prejudice in the distribution and disbursement of relief good and emergency cash transfer to communities hit by earthquake. Those who do not get any aid usually show their disappointment and grievances at not getting and aid and support. It has been seen that while some people with minor damages or partly destroyed home received full relief whereas others whose homes were completely destroyed and were not livable got nothing. The government and its deputed officials need to be aware of such biasness and much ascertain main collaborators like local committees & NGOs, elders of the area, local government and other agencies and engage them to help ensure that the beneficiaries are legitimate and the relief is is distributed fairly and to the rightfully deserving on merit so that the largely vulnerable population are approached and helped (Nesbitt-Ahmed, 2017). The financial outlay of a disaster consists of the demolition of fundamental revenue generating assets. The indirect cost includes impairment to the delivery and supply of goods and services. The indirect cost of disaster includes reduced production from the destroyed industrial units, reduced sales, steep hype in prices of raw material owing to the destruction of infrastructure, the hiked operational expenses of relief, resurgence and reconstruction. Disoriented development work, the need to reallocate the development project funds towards disaster relief, reconstruction and the consequent disparity and debt to government budget and the proposed projects are all indirectly affected. The augmented and un-forecasted financial liabilities are one of the major and crucial outcomes of an earthquake disaster. Resultantly the adverse sort and long terms effects are seen on the overall economy of the country (ADPC).

Institutional Vulnerabilities:

Besides peculiar preparedness, the preparedness of native vital organizations is crucial to enhance the ability to lower risks, response and recover. Keeping in view the earthquake history of the study area, it is significant to observe if building safety considers if the buildings are examined by experienced and adept engineers and their findings and conclusions are reliable. In order to ensure business continuity and to protect precious lives, property and personal possessions and records etc. it is mandatory to utilize a non-structural mitigation application in order to

minimize the threat. In the under developed and developing countries, the major challenge is the availability of trained and competent staff in emergency preparedness and response whereby little is being done in this regard. In order for the organization to prosper, it is vital for them to realize if their business facility is safe and their employees are well trained and prepared. Besides the above cited methods of corporal preparedness, the enterprise must also stock essential provisions and medical supplies backed by availability of temporary housing facilities for their main employees and their families in the event of an untoward incident. The most crucial preparedness achievement that includes planning for risk minimization in addition to planning to harmonize the rejoinder is to have backup emergency plan. In order for plan to give the anticipated results, it should be cross-examined on regular basis with meticulous monitoring and evaluation of the set framework, objectives and its regular need based revision. The existing and any revisions needs to be communicated and shared with all the new employees, to ensure its implementation and compliance. The staff needs to physically perform the tasks and demo the procedures jotted down for action taking and should be made mandatory part of the plan development so that staff can better understand them and execute efficiently when needed. The appraisal of the trainings must be done to see if any segment of the plan is causing hindrances or is difficult or execute, hence alternate solutions have to be worked out. The employees have to be trained on regular basis to ensure the emergency plan's success. Well train staff is the frontline of the company who will locate and minimize security risk and effectively respond to them. Providing consultation to the supervisors responsible for handling the employees is important especially in three areas including, continuously re-training on vocational area, training on calamity awareness and associated topics and risk minimization and rejoinder. Generally, very inadequate or absolutely no finances are allocated in this area, despite experiencing and realizing its importance and need, and knowing that fund allocation for crises management improves the organization's rejoinder and quick revival from the incident. Companies even under normal conditions need to realize the importance of data achieves for smooth functioning of their businesses. As a safety precaution the enterprises need to store its data backup in another location so that in case of data loss they have minimum risk of dysfunctional operations. The employees of law enforcement agencies, disaster management authorities and other organizations working for crisis management often have to work under stress and immense anxiety while facing and handling an extreme event, therefore, their regular training and support should be kept as an

organizational priority to ensure they perform and deliver optimally and effectively (B. Sungay et al., 2012).

Different organizations have different capabilities and sufficiency of employees and equipment. It is vital to have strong coordination and stay updated by knowing which pertinent organization should be contacted immediately when an extreme event like an earthquake occurs. The stronger coordination and frequent communication among the line departments is crucial to attain a successful disaster management. In order to assess and ensure that there is strong coordination and cooperation among them, joint trainings, exercises and frequent meeting should be conducted to develop mutual trust and clear roles. As per historic event assessment and in general investigation and findings it has been seen that there is a serious lack of coordination among line departments and agencies and there is serious lack of coordination and cooperation. Army has been seen to be the only institution that has a very coordinated and planned approach towards crises management to some extent, whereby complete coordination and data sharing can boost mitigation and response / relief efforts and save precious lives. Trainings of disaster and the rejoinder of the community has sadly been over looked and neglected in every way, because relevant institutions frequently neglect the role of the community in disaster management overlooking their important function and responsibilities (B. Sungay et al., 2012).Due to the lack of knowledge and awareness, scarcity of protection and unequal distribution and provision of food in the least developed countries women and children are mainly the vulnerable populace and the most marginalized. Resultantly, their difficulties and sufferings are more critical during and after an earthquake disaster (Max Dilley, 2005). On the global scale, there is expanding acknowledgment of the need to widen the approach from risk management agencies and officials to building disaster safe communities and homes. Undertaking Effect enables groups to shield themselves from the overwhelming impacts of cataclysmic events by taking activities that drastically lessen interruption and misfortune.

Study Area and Methodology:

Study Area:

Since no work has been done in assessing the women vulnerability in the context of earthquake in Quetta, this paper has attempted to assess the earthquake vulnerability of women in Quetta, Balochistan-Pakistan. Since the target area is prone to Earthquake with a destructive historical background, it was therefore important to assess the women vulnerabilities. The city of Quetta was being chosen this research because

Quetta city is considered as one of the most vigorous earthquake zone of Pakistan, having a disastrous earthquake history. The population is very dense and extremely concentrated, its weak infrastructure, violated building codes, untrained employees in its departments and lack of awareness and education among its inhabitants about earthquake risk make Quetta city the most viable case for study. On the basis of secondary information, it has a total area of about 2,653 square kilometres. As per the census record its population is approximately 1,140,000 people. No work has been done in assessing the women vulnerability in the context of earthquake.

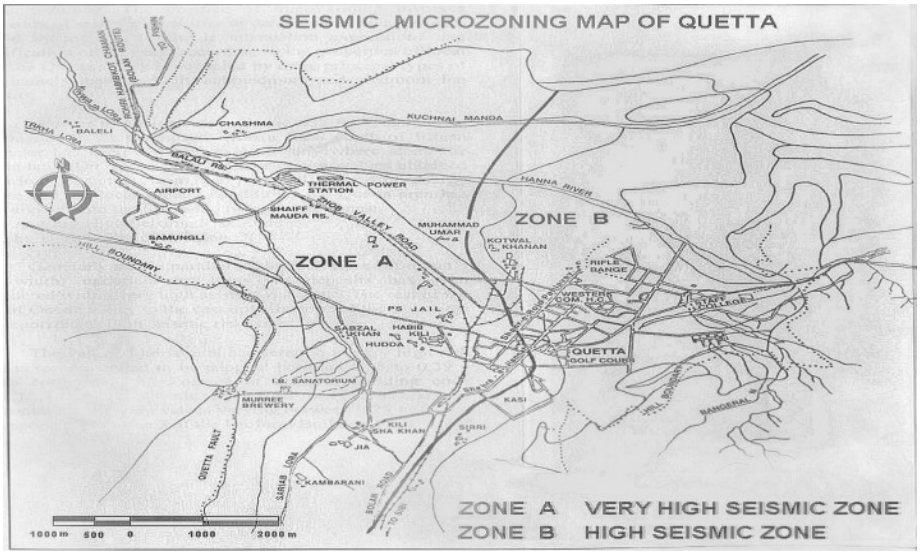

Fig 1: Seismic micro zoning of Quetta

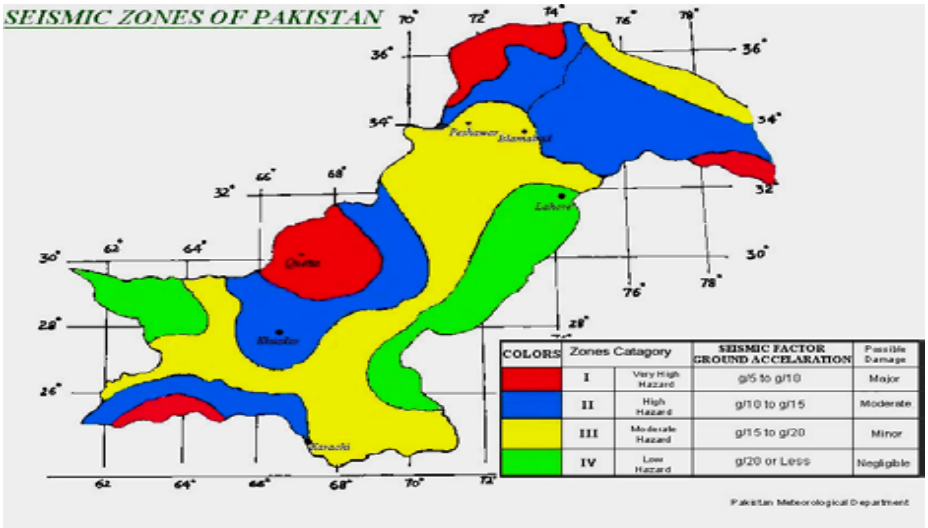

Fig 2: seismic zones of Pakistan

Data Collections Tools and Methods:

The objective of the paper achieved through primary and secondary data sources, primary data was collected through questionnaire survey among 120 sample female respondents, and secondary data was collected from various articles, journal, published books and government offices. House-holds & education institutes with female presence were being focused on basis of sample size formula set by (Yamane, 1967) given as;

$$n = \frac{N}{1 + N\,e^2}$$

n = 120

Where n = Sample size
N = Population size
e = Level of accuracy / precision or Sampling Error, which is ±9%

We have calculated that the approximate sample size for this research is **120** respondents.

Due to the focus and objective of the study, only women are targeted as the respondent groups to the questionnaires hence males were not part of the sample for the study survey. Mostly questionnaire was filled by women in the house-holds & female in the education institutes. Data was analysed through SPSS using both quantitative and qualitative methods. The study particularly identified the factors of women vulnerabilities to earthquake.

Results and Conclusion:

The total population was about 760000 individuals having an average household size of 9 persons. Female population showed slight hype in the sex ratio with an average of 4.72 and 3.97 respectively. Almost 28% of the total population was below 15 years of age, which is considered as more susceptible age. Only 3 % of the total population was above 60 years of age. More than 98 % of the sample respondents had no physical disability.

1.1 Women's Perception about Earthquake

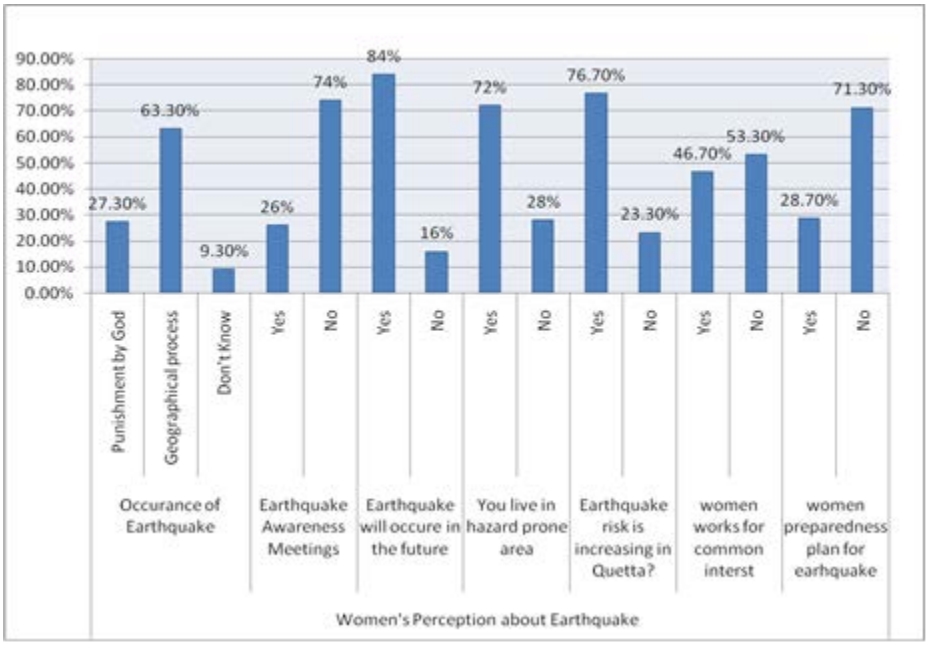

Figure 3: Women's Perception of Earthquake

The above figure shows the overall results of women's perception about an earthquake. As in the first part of the graph the question was asked about the occurrence of an earthquake, almost 2, 3rd of the sample respondents were answered that the occurrence of an earthquake is due to geological process while 27% of the sample respondents answered with a fatalistic approach as they say that earthquake occurrence is the punishment by God. In the 2nd part of the graph the question was asked about earthquake awareness meetings, only 26% of the sample respondents say that they conduct meetings about earthquake awareness while remaining 74% don't conduct meetings about an earthquake awareness which is the sign of vulnerability for the community. In the 3rd part of the graph almost 84% of the sample respondents know that earthquake will occur in the future it means the overall community is aware about earthquake but they don't try to implement the earthquake mitigation measures prior to a disaster. As in the result 72% of the sample respondents know that they live in hazard prone area and almost 77% of the sample respondents also know that the earthquake risk is increasing in Quetta. As in the 2nd last part of the graph the result shows that almost 47% women works for common interest during disaster which is a satisfactory sign for the community, while in the last part of the graph the question was asked to know that weather women's have any preparedness

plan for the earthquake as result shows that only 29 % of the sample respondents have any preparedness plan for the earthquake and 71% haven't any preparedness plan for an earthquake which is the risky sign for the community.

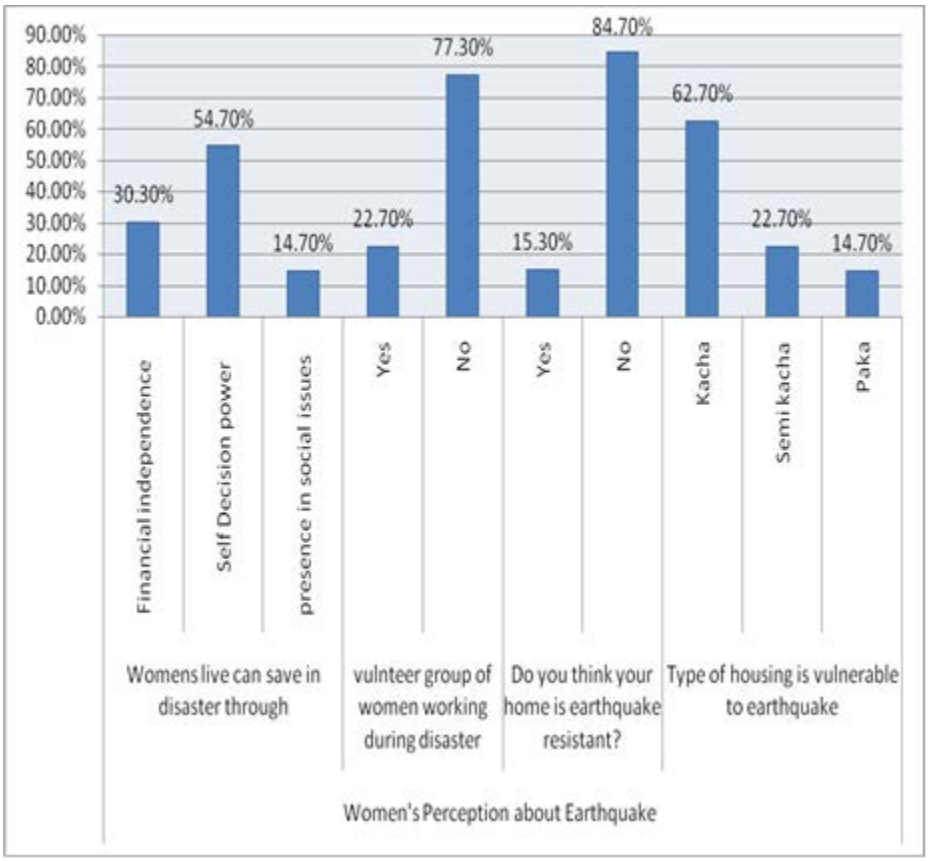

Figure 4: Women's Perception about Earthquake

This graph also shows the results related to the women's perception about earthquake. As in the first part of the graph the question was asked in the context of social aspect, more than half of the sample respondents say that the self-decision power of women can save the lives of women in disaster situation, 1, 3rd of the sample respondents argue that the financial independence can save women lives while only 15% of the sample respondents say that the presence of women in social issues can save the women lives in disaster situation. The results conclude that the self-decision power of women is the most significant social aspect for women. In the 2nd part of the graph the result shows that almost 78% women work voluntarily work during disaster. In the remaining last parts of the graph

respondents say that almost 85% buildings are not earthquake resistant and the majority of the respondents say that kacha and semi kacha houses are more vulnerable to earthquake.

Sub Components	Weightage of vulnerability index	Effects on vulnerability
Weightage of Social vulnerability index		
Percent of population under 15 years of age	Less than Twenty Percent (20%)	Positive
Percent of population over 60 years of age	Less than Fifteen Percent (15 %)	Positive
Percent of women without above metric education	Below Forty Percent (20 %)	Negative
Percent of women work for community trust in disaster	Moe than Fifty Percent (25%)	Negative
Weightage of physical vulnerability index		
Percent of pregnant women	More than (10%)	Positive
Percent of older women in family	More than (15%)	Positive
Percent of population with no disability	More than eighty percent (80 %)	Positive
Weightage of Economic vulnerability index		
Percent of women with employment profession	Below Fifty percent (25 %)	Negative
Percent of families with various source of income	Below Fifty percent (50 %)	Negative
Percent of women with employment profession	Below Fifty percent (25%)	Negative
Weightage of Institutional vulnerability index		
percent of women with hazard preparedness/awareness	More than Sixty percent (30%)	Negative
Percent of women voluntarily wok during disaster	Moe than Forty percent (20 %)	Negative

Table 1: Vulnerability Assessment Indicators

No	Component indicators	Percent value	Vulnerability factor index	Optimum level %
Social vulnerability				
1	Percent of population under 15 years of age	28	1.36	20
2	Percent of population over 60 years of age	3	0.33	15
3	Percent of women without above metric education		1.34	20
4	Community faith in disaster	45	0.73	25
	Component vulnerability factor index		**0.94**	
Physical Vulnerability				
6	Percent of pregnant women	1.7	0.23	10
7	Percent of older women in family	38	0.25	15
8	Percent of population with no disability	98	0.03	80
	Overall component vulnerability index	**0.17**		
Economic Vulnerability				
6	Percent of women with employment profession	1.7	2.83	25
7	Percent of families with various source of income	38	0.63	50
8	Percent of women heading household	7	2.94	50
	Component vulnerability factor index		**2.13**	
Institutional Vulnerability				
9	Percent of women voluntarily work during disaster	26	0.03	25
10	Percent of women with	14	2.63	30

	disaster preparedness			
	Component vulnerability factor index		**1.33**	
	Composite Vulnerability Index		**1.142**	

Table 2: Indexes of Vulnerability Components

Social and physical components are seen to be correlated and affected by one another. For this research of women's vulnerability assessment their education, economic, social capital and physical components are considered for study. The social value index is higher due to minimal levels of education as well as a higher proportion of the population below 15 years of age i.e. (28 %) which is an alarming situation for the community to have the capacity and resources to evacuate such a huge proportion of children's during disasters. Low percentage of disabled peoples and small proportion of pregnant women with 1.7% is a positive sign for community in term of physical vulnerability. Higher the vulnerability of women shown in economic sector as the women are more vulnerable. Women unemployment and decision power taken by men are the major vulnerable components in the economic sector. Lastly in the institutional vulnerability women's lack of preparedness is the higher vulnerability component which increases the women's vulnerability.

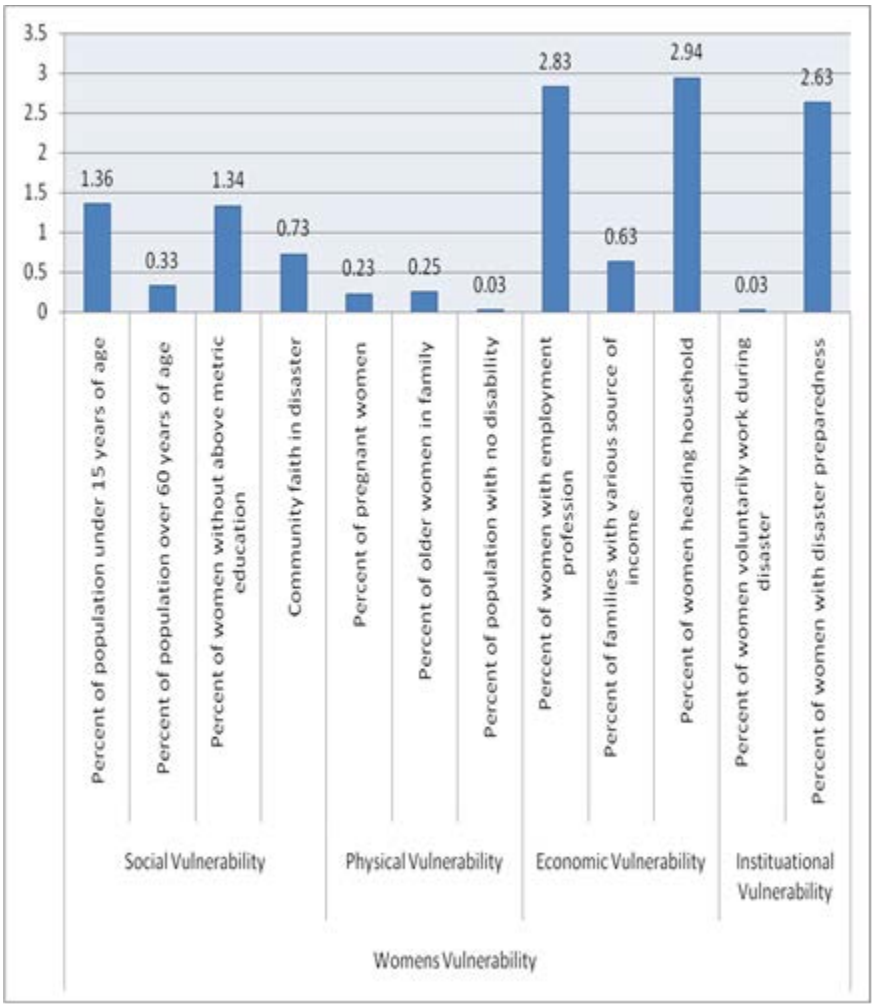

Figure (5) Women's Vulnerability Assessment Results

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