

Assessment of Organizational Preparedness for Earthquake Hazard in Quetta Balochistan:

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Abstract:

Natural disasters have not only resulted in social and economic losses, but most of these disasters have also been responsible for taking the lives of thousands. Pakistan has been extremely vulnerable to natural disasters because of its geographic location. The main purpose of the current paper is to assess the organizational preparedness of earthquake hazards in Balochistan. 20 Key informants of disaster relevant departments were interviewed to assess the organizational preparedness for earthquake hazard. The results revealed that, organizational setup is having constraints to deal disaster management activities from national level to local level due to low quality of leadership and inexpert human resource. The hiring of field experts' human resource in disaster management institutions, can enhance the organizational preparedness capacities for effective response to earthquake hazard.

Keywords: Organizational, Preparedness, Hazard, Balochistan

Introduction:

According to the World Economic Forum (WEC), earthquakes are amongst the most frequent disasters that occur on Earth and from 1996 to 2015, there have been 562 incidents of earthquakes worldwide (Myers, 2016). While

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there are certain natural disasters that can be predicted such as floods, storms or heavy rainfalls, earthquake is one of the natural disaster that is almost impossible or extremely challenging to predict (Guangmeng and Jie, 2013). This can result in difficulties for the authorities to prepare for such an unpredictable event. Although, Scientists in the developed regions are researching on to finding a solution to this problem, however, at present the problem persists. Natural disasters have not only resulted in social and economic losses, but most of these disasters have also been responsible for taking the lives of thousands. It is probably the leading cause of mass deaths around the world. Although these events are unavoidable and uncontrollable, yet there are measures that can be taken to mitigate the impact of these disasters. Pakistan has been extremely vulnerable to natural disasters because of its geographic location (Rafiq and Blaschke, 2012). It is positioned within a region that is prone to various natural calamities such as droughts, earthquakes, floods and cyclones. The history also conveys that a major calamity has hit Pakistan in almost every decade since its independence with the present droughts in Sindh and the 2013 earthquake in Balochistan being the most recent ones. According to Fazl-e-Haider (2013), more than 500 people have died in the recent Balochistan earthquake other than hundreds and thousands of villages being destroyed. In the National Disaster Act of 2010, National Disaster Management Commission (NDMC) was formed under which the National Disaster Management Authority (NDMA) serves as a leading federal agency to management disasters within the country. As per the stats shared by NDMA (2019), from 2006 to 2016, over 80,000 people in Pakistan have lost their lives due to disasters such as earthquakes, floods and droughts. History tells that Balochistan is amongst the most deprived provinces of Pakistan and therefore, there is a lack of organizational preparedness for natural hazards within the region. The present study mainly focused organizational preparedness for earthquake hazards in Quetta in order to propose improvements in the plan. Balochistan and particularly Quetta city is situated in the most active seismic zones of Pakistan (Rehman et al., 2014). This problem demands instant solutions to be taken by the provincial and federal governments. Quetta is a very crucial social and economic hub of Pakistan. The importance of the region has grown due to CPEC and also because the regions are located in trade routes between Pakistan and Afghanistan (Erduran et al., 2015). The geographic importance of Quetta for Pakistan and Balochistan cannot be dodged. Ainuddin, Routray and Ainuddin (2014) argue that Quetta is highly prone to earthquakes. The authors revealed that the people of Quetta are well aware of the risks posed by Earthquakes but due to the lack of facilities, they are not able to take any

actions. This particular study will help the policy makers that, how institutional preparedness can help in mitigating the impact of earthquake hazards in Quetta, Balochistan.

Literature Review:

Natural disasters can have significant influence on the economic systems of a nation (Mata-Lima et al., 2013). Pakistan's economy is already in a destabilized mode and therefore it cannot afford any further damage in the form of a natural disaster. All the provinces of the country have already suffered major calamities in the past. The 2005 Kashmir earthquake and the 2007 Yemyin Cyclone (affecting Balochistan and Sindh) are two of the most devastating disasters. Balochistan is already going through an immense amount of agony in the form of terrorism, foreign interferences and local rivalries. The economic situation of the province is also not much encouraging. Given these circumstances, if there is any province in Pakistan that will be affected the most by an earthquake would be Balochistan. These situations along with the region's vulnerability to earthquakes demand not only the government, but also the local Baloch's to act responsibly. They must have contingency plans prepared in order to alleviate the hostile consequences of a disaster otherwise the major losses can be incurred by the society. Disasters occur in different places around the world and during all seasons of the year. Disasters such as earthquakes are often unexpected and unavoidable because there is nothing human beings can do to stop a disaster from striking. They leave a very little time for preparations and therefore it is important to be prepared even before the disaster strikes.

Preparedness can be carried out on different levels and scales such as at individual, institutional or organizational level. Sadiq and Graham (2015) indicate that organizational preparedness (OP) is a useful way of preparing the community for various disasters such as earthquakes. It allows the organizations within the community to fulfill their social obligations by creating awareness amongst its employees regarding the measures that they must take in case a disaster takes place. These practices are very common in developed regions, however, organizations in the developing regions like Pakistan have not acting responsibly when it comes to creating awareness amongst its stakeholders.

Galindo, Villanueva and Enguito (2014) identify that organizations are not fully prepared to mitigate natural disasters' impacts. The infrastructure, their facilities and transportations are less prepared to deal with disasters. One way through which organizations can contribute towards the society is by organizing seminars that are focused on creating awareness or communicating to the employees the way or strategies that they should opt,

at home or at work, in case they face a natural disaster. Sadiq and Graham (2015) identified the determinants or factors of effective organizational preparedness. Risk perception, previous experience with disasters, size of the organization, type of business property, organization age, sector and the type of organization were identified as the factors from the literature that had the probability of influencing preparedness activities. These factors will distinguish how prepared an organization and its employees are in dealing with the calamities that take place in the regions.

Proposed Methodology:

The research design is also an important part of the methodology section. Qualitative and quantitative research designs are the two types of approaches that a researcher can adopt. The quantitative research design relies on quantifiable and numeric data whereas the qualitative research design is based on subjective and opinion-based data. Considering the nature of the topic, the qualitative research design seems more appropriate. This is because recommendations regarding disaster management plan of Quetta cannot be proposed in the form of numbers. In the current paper qualitative research design is used to achieve the objective of the study. Primary data was collected from the 20 key persons relevant to the disaster field, to analyze the organizational preparedness. The collected data was analyzed through Statistical Package for Social Sciences (SPSS). The responses are represented in the results section in the form of frequency distributions through multiple bar charts as in figure 1.1.

Results and Discussion:

Organizational Preparedness:

Preparedness is a stage of disaster management and is defined by global development research center as “a stairway which improves the capability of societies plus administration to react to a calamity.” The phases involved in this segment are the upkeep of buildup stocks, logistic planning, migration planning, announcement planning, and requirements valuation. Significant source to operative management of hazards are readiness to deliver a quick crisis reaction. Organizations are an important part of our societies. Besides contributing towards the general and economic well-being of society through the wide array of products and services they offer, they provide employment to hundreds of individuals within a community. Similar to households and individuals, organizations can also be adversely influenced in case of a disaster strikes in the region it is operational in. In

order to deal with these negative influences, it is important that the organization is pre-prepared for a disaster. Burns and Slovic (2012) suggest that by being prepared prior to a catastrophic event, the firms might be to amend or reduce the adverse influences of the disasters so that they can sustain their flow of operations. As the number of natural disasters is anticipated to rise (Joffe, Rossetto and Adams, 2013), the organizations through organizational preparedness can play an important role in mitigating natural disasters such as earthquakes.

The Provincial Disaster Management Authority (PDMA) needs to clearly define the roles and responsibilities of various departments and authorities at the district level through stronger institutional coordination. For example, the Kashmir earthquake revealed a number of challenges, including the coordination of search and rescues and relief operations, the transport of goods to affected areas, the need to supply a certain number of vehicles, ensuring security of relief convoys and communication infrastructure, and so on. The overall rescue operation was extremely difficult because of the lack of professional expertise, specialized machineries, equipment and limited internal capacity along with the lack of availability of foreign specialists at the time. Similarly, after the 2010 floods, authorities were once again confronted with similar issues in providing shelters and relief goods, particularly food, water, health-related provisions and goods for meeting the immediate needs of the affected communities.

The current study mainly focuses the organizational preparedness in the context of earthquake hazard for Balochistan in journal and particularly for Quetta. To achieve the objectives of the study, qualitative research design is used to evaluate the role of organization in term of preparedness. The results of the collected data are as follow in figure 1.1.

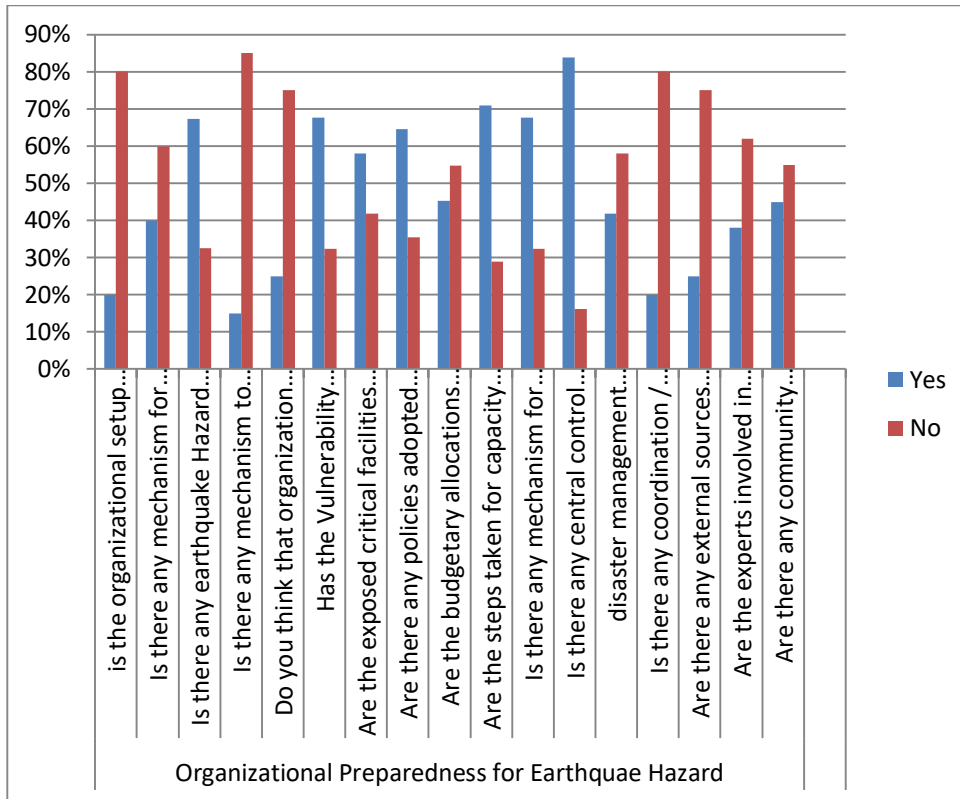


Figure 1.1 Organizational Preparedness for earthquake hazard

Conclusion:

Sadiq and Graham (2015) indicate that organizational preparedness (OP) is a useful way of preparing the community for various disasters such as earthquakes. It allows the organizations within the community to fulfill their social obligations by creating awareness amongst its employees regarding the measures that they must take in case a disaster takes place. The main purpose of the current study was to assess the organizational preparedness for earthquake hazard. Data was collected in the form of checklist from key person relevant to the field. Different question was asked in the form of checklist from the key respondents about organizational preparedness. The overall picture of the result shows that organizational preparedness is still a serious challenging factor for disaster managers. The first question was asked about organizational preparedness as, “is the organizational setup functional from national level to local level”. 20 % of the key respondents say yes, while 80 deny it. It means still the centralization has strong role in the context of disaster management practices in the province. The 2nd question was asked from key informants as, “Do you think that organization are will prepared for managing earthquake disaster”. 75% of the key

respondents deny it while 25% say yes. It means that due to low level of organizational preparedness in term of expert human resource as well as financial constraints attracts the overall organizational setup towards vulnerability, and Organizations at the time of emergency management may not be operate properly. The third and the most important question were asked from the key persons as, “are the experts involved in planning and execution of building codes”. 38% of the key respondents say yes while 62% of the respondents deny it. It means mostly the building construction is going without the execution and planning of experts. Such construction may potentially harm the entire city during earthquake disaster. The last question was asked about the community awareness from the informants as, “Are there any community awareness programs under the monitoring of institutions”. 45% of the informants say yes while 55% deny it. It means institutions do not perform the awareness programs at grassroots level, which is the most important because the community is the first responder at the stage of earthquake emergency. The analysis further revealed that there is little coordination among the involved agencies in disaster management activities throughout the whole cycle of disaster management.

Therefore, there is an essential requirement for focusing on enhancing the participation of local communities under the monitoring of institutions. Furthermore, there is an essential requirement to overcome existing disconnect between relevant academia & concerned Policy Makers for effective organizational preparedness. A specific research wing and expert’s human resource can enhance the organizational preparedness at all level.

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