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# The need for local involvement: Decentralization of disaster management institutions in Baluchistan, Pakistan

Syed Ainuddin [a,*], Daniel P. Aldrich [b], Jayant K. Routray [c], Shabana Ainuddin [d], Abida Achkazai [e]

[a] Faculty of Earth and Environmental Sciences, Department of Geography, University of Baluchistan, Quetta, Pakistan
[b] Purdue University, USA
[c] Regional and Rural Development Planning and Disaster, Preparedness, Mitigation and Management, Asian Institute of Technology, Thailand
[d] Department of Social Sciences, Sardar Bhadur khan Women University, Baluchistan, Pakistan
[e] Faculty of Earth and Environmental Sciences, Department of Geography, University of Baluchistan, Quetta, Pakistan

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ABSTRACT

After the 2005 earthquake in Kashmir, the Pakistani government set up the National Disaster Management Authority (NDMA) to handle future disasters and then created Provincial Disaster Management Authorities in all the provinces. This paper analyzes the decentralization of the disaster management institutions in the community of Baluchistan, using interviews of key actors in government and non-governmental organizations involved in disaster risk reduction and management activities. The data revealed that disasters in Baluchistan are still handled at the provincial level and that disaster institutions are not yet fully implemented at the district and community levels. This has exacerbated the people's vulnerability to disasters. The paper recommends efficient preparedness and coordination of provincial and national level agencies to enhance community awareness and preparedness. In addition, the paper concludes that disaster management authorities should implement programs and activities to empower communities for disaster risk reduction.



## 1. Introduction

Globally, the risks, vulnerabilities and impacts induced by natural hazards and disasters are on rise [1]. Their economic costs and damage are widespread as seen in recent disasters such as the 2004 Indian Ocean Tsunami, the 2005 Kashmir Earthquake, and Japan's 2011 tsunami. Many government agencies have utilized disaster management principals in an attempt to minimize the impact of disasters. The development literature on hazards and disasters reveal that most of the countries around the globe still practice the post-disaster relief approach [2–9]. As a result, many individuals and communities remain vulnerable to natural hazards [10]. However, a paradigm shift from relief to risk assessment, preparedness and early warning systems [11] under the Hyogo Framework for Actions is underway, emphasizing community resilience to disasters for hazard mitigation [12–17].

Research has underscored that local level vulnerability assessment and resilience are required to empower communities to cope with disasters [18–24]. Local level vulnerability assessments incorporate assessment of vulnerable communities both at the district, Union council and community levels in line with national level assessment. This would set the ground for risk reduction strategies at the grassroots level. Once we know the risks and vulnerabilities, better mitigation and preparedness measures can be taken to avoid disaster impacts. By taking these measures, the communities would cope better with the disaster impacts, subsequently their vulnerabilities would be reduced and

* Corresponding author. Tel.: +92 343 8155 436; fax: +92 081 9211 277.
*E-mail address:* syed.ainuddin77@gmail.com (S. Ainuddin).

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enhance their resiliency to natural disasters. Further, it is widely acknowledged that local government engagement in risk reduction and management activities serves as a viable strategy for disaster management [25]. Local communities, and not national authorities, are always the first to respond to any disasters [3,26,27].

Effective and decentralized policies for disaster risk reduction can greatly reduce the loss of life and assets caused by disasters [28,29]. The existing research on the impacts of decentralization of disaster management institutions envisions the procedure positively in terms of public service delivery [30] because nations with decentralized government processes experience fewer disaster-related deaths [31]. Such governments prepare for and respond to disaster more effectively relative to more centralized systems. In addition decentralization reduces disaster-induced deaths by enhancing human capital [32].

Disaster risk reduction is not just a process of identification, assessment and management of disaster risks. It is also a process of understanding people's perception about their risks and vulnerabilities, their interaction with each other and indigenous coping strategies, power structures along with laying out the methods of effective cooperation. Prevention and mitigation need to be understood as social phenomena. An effective disaster response entails more than resource management, evacuation, shelter and health interventions; it also rests on an understanding of human behavior, stresses, strains and vulnerability. Similarly, post-disaster recovery is not merely a mega-project involving construction and rehabilitation. Community-based disaster management activities serve as increasingly important elements of vulnerability reduction and disaster management strategies at the local levels [33]. This paper attempts to address the implementation of disaster management institutions at the local level in Baluchistan so that communities at the district and sub-district levels engage in the planning and implementation of disaster management and risk reduction strategies. According to the Disaster Management Act of Pakistan (2007) that ensures the implementation of the disaster institutions but so far these institutions are not yet implemented for risk reduction at the district, union council and community levels. As we are well aware that communities always respond first to any disaster's impacts therefore their role becomes imperative that they are engaged in disaster related activities at the local level. i.e., they are engaged in decision making, preparedness and mitigation activities, design, implementation and evaluation of the risk management activities at the community and union council level. Further, the effective implementation of mitigation strategies requires the incorporation of local decision-making in disaster management processes [34].

## 2. Natural disasters in Pakistan

Geographically Pakistan is situated in a region very much prone to natural hazards, particularly the northern part of the country where Himalayan and Hindukush mountains are situated [35–37]. The area experiences natural hazards such as earthquakes, landslides, floods, glacial melting and soil erosion [38]. Pakistan's vulnerability to natural hazards and disaster ranges from moderate to severe. It has faced both natural as well as man-made disasters in its history. Natural hazards for the country include cyclones, earthquakes, floods, glacial outburst, storms, droughts, landslides, river erosion, tsunami and epidemics. Pakistan is also under the threat of a number of human induced hazards such as forest fires, civil conflicts, transport, and industrial disasters. However some of the floods, earthquakes, droughts, wind storms and landslides have caused immense damage to life and property in the past. Table 1 below shows the number and effects of major hazards in Pakistan over the last two decades.

Flooding from river overflows is the most common natural disaster in Pakistan. They are costly natural hazards due to damage to property and croplands. Floods are usually short-lived events that can happen with little or no warning [40]. The Indus basin—the biggest in the country—covers 70% area of the country and generally major floods occurs in the basin in the late summer when south Asian region is subjected to heavy monsoon rainfall [41]. Major flooding in Pakistan is associated with the monsoon low depression that develops in the bay of Bengal and move across India west/north westerly direction to enter Pakistan [42]. The Indo-Australian plate upon which Pakistan, India and Nepal lie, is continuously moving northward and sub-ducting under the Eurasian plate, thus triggering earthquakes in the process and forming the Himalayas mountain range [3]. The collision of the two continental plates indicates that Pakistan is situated in a highly seismically active region of the world [43]. Major earthquakes over the past100 years include the 1945 Makran earthquake with magnitude above 8.0 to the Kashmir earthquake in 1905 with magnitude of 7.6 has caused heavy damage to life and properties [7]. The October 2005 Kashmir earthquake enhanced consciousness about the increasing vulnerability of Pakistan's growing population in the area [43,44]. The areas in Pakistan which are likely to be susceptible to the future earthquakes are the northern areas, Chitral district in North West Frontier Province (NWFP), and Kashmir including Muzaffarabad, and Quetta. The region of Kashmir, northern Areas and parts of the NWFP are particularly vulnerable to landslide hazards. Apart from the young geology and fragile soil type of mountain ranges, accelerated deforestation is a major cause behind being increased incidences of landslides (NDMA 2007). In all natural hazards and disasters droughts have tremendous potential impact across broad areas compared to other disasters like flood, tropical cyclones etc. Due to the unique geoclimatic conditions in some parts of the country drought have been a major threat and will have substantial consequences on sustainable development and food security, agriculture, live stock, water resources, environment and hydro-electricity [9]. The main arid areas of the country include D. G. Khan, D. I. Khan, Kohistan and western Baluchistan. Some of the areas are drastically vulnerable to droughts. For example in Baluchistan due to the decrease of both the vegetation cover and precipitation has affected about 92% area of the province [45]. Pakistan's vulnerability to tsunamis is low, but it did experience a large tsunami on 28 November