Community Based Vulnerability Assessments

A Tool for Adaptive Planning

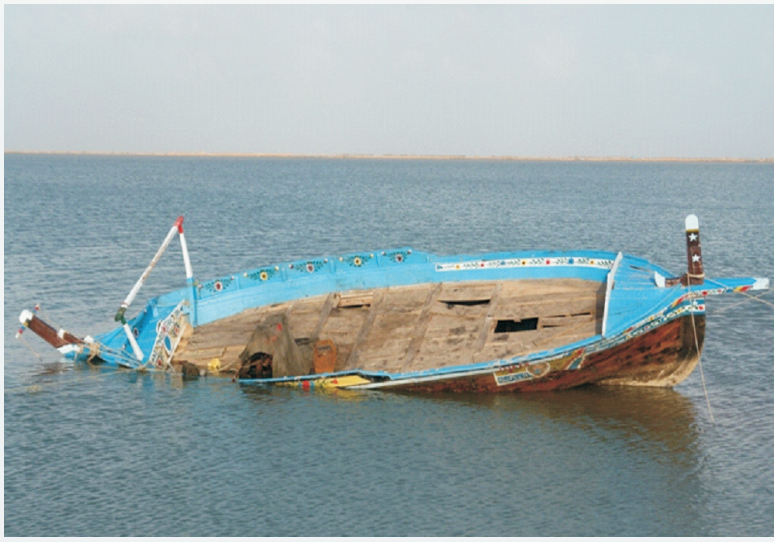
The purpose of this brief is threefold: provide an overview of natural disaster threats and their impacts, discuss the different aspects covered by an effective vulnerability assessment, provide some guidance on how to engage in a community based vulnerability assessment.

Frequency and threat of natural disasters

Coastal communities in Pakistan face the risk of being struck by a disaster of one type of another, ranging from cyclones, tsunamis, and floods to earthquakes and droughts. When a disaster strikes, as in the case of the most recent floods in Pakistan, or cyclones Phet and Yemyin, it can wreak havoc on a community—by destroying homes, boats, poultry farms, fish ponds and small farming plots, and leaving people homeless and out of work. In recent years, the scale of such disasters and the costs of recovery, reconstruction and rehabilitation are increasing, mostly because greater numbers of people are living in hazard prone areas.

Cyclone Yemyin in 2007 affected approximately 2.5 million people. It reportedly destroyed more than 70,000 homes and displaced thousands. Among those worst hit by the cyclone were the communities of Keti Bunder, a priority site of the Indus for All Programme. 5,220 families lost their homes in Keti Bunder town alone, while 200 thatched huts were destroyed and 4,200 were partially damaged. Additionally 135 boats were damaged as were half of all poultry farms and betel leaf sheds. Half of all crops on 500 acres of agricultural land destroyed.

Similarly, in 2009, in Keti Bunder and its four major creeks alone, cyclone Phet devastated five thousand families leaving them homeless. The force of the cyclone destroyed 500 adobe huts (both thatched and made of mud), and caused severe damage to many others. It also damaged boats, nets, and other fishing paraphernalia belonging to coastal fishing communities. For many, fishing is the only source of livelihood. In addition to the scale and financial costs associated with such disasters, their aftermath has cast the vulnerability of marginalised populations into sharp relief.



Women, children, and people dependent on natural resources for their livelihoods, are the worst affected. Many people were forced to seek shelter in facilities that were unsafe and ill-equipped while still others chose not to evacuate at all unable to abandon their homes and other fixed assets. The only assets some of them have. Still others were forced to migrate to urban centers and have faced a difficult and prolonged recovery and rehabilitation period due to the loss of their homes and livelihoods, inadequate compensation or resettlement support, extended periods of unemployment and dissolution of social networks. These vulnerabilities are further compounded by systemic obstacles such as lack of transport for evacuation, the inadequacy of early warning systems and little faith in emergency and disaster response mechanisms.

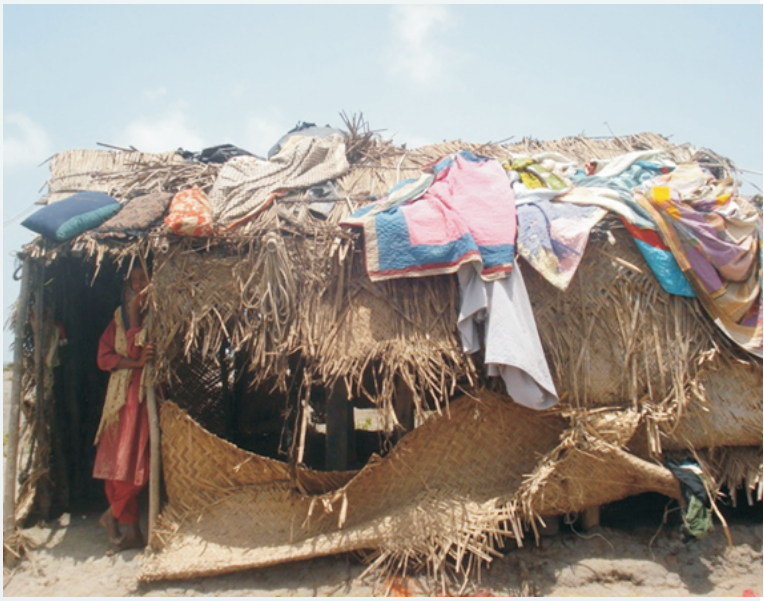
Understanding vulnerability assessments

Vulnerability is a multi-dimensional subject. These dimensions range from physical and economic to the social and the political, among others. For the purposes of this brief, which looks at vulnerability and the impact of natural disasters on the coastal communities Keti Bunder of district Thatta located in the province of Sindh, the focus will be on economic, physical and social vulnerability. However, one fact remains true for the communities of Keti Bunder (district Thatta) and those residing elsewhere: poverty increases vulnerability.

Community based vulnerability assessments are used to identify practical adaptation initiatives, wherein communities can shore up their capacity to cope with natural disasters and the impacts of such disasters. A community-based vulnerability assessment works on multiple tiers involving multiple stakeholders and decision-makers. During the first tier, participants identify threats, the intensity of threats based on past experiences, their ability to cope with the impact of these threats, and finally their capacity to normalize economic and social life in the aftermath of these threats. The second tier focuses on embedding or incorporating adaptive processes that reduce community vulnerability into decision-making, which involves disaster readiness, resource management and allocation.

These assessments help provide an in-depth understanding of community specific vulnerabilities and coping capacities. They may also provide information on local livelihood trends and any changes such trends may experience. Furthermore, the inclusion of hazard assessments in this type of study encourages the development of a hazard and impact database, which may not be scientific, but is nonetheless based on on-ground experiences.

When designing a community based vulnerability assessment, it is essential place local stakeholders at the centre of learning and adaptive efforts in order to appropriately address both physical and social vulnerabilities. A bottom-up participatory approach will be further strengthened by examining and internalizing local conditions that give rise to context specific vulnerabilities based on local knowledge and experience.



The physical vulnerability component of an assessment should focus on the risk to roads, houses, livestock shelters, boats, schools etc. The social component of a vulnerability assessment, on the other hand, recognizes that not all members of a community or different population groups have similar or equivalent resources to prepare for, cope with, survive and recover from disasters. The social component of a community based vulnerability assessment also benefits from the inclusion of local experiential knowledge, which reflects the experiences of people who have lived through disaster and understand how such disasters make them vulnerable. Involving local communities, men and women, when preparing and conducting a vulnerability assessment will not only improve its effectiveness but will also ensure that the results of the assessment and recommendations and actions emerging from its are both relevant and doable.

Equally important is the understanding that: 'people learn by doing.' Therefore, community participation in an exercise of this nature will increase their awareness of natural disasters and concomitant risks, the social, economic and physical vulnerabilities that face them, and their internal resilience and weaknesses when faced with such challenges.

Carrying out community based vulnerability assessments

Step 1: Getting started -- Determine responsibility for conducting the assessment, identify vulnerable populations in the community and collect relevant plans, studies, and reports.	
Data • Local knowledge (communities and civil society organisations) • District government and line departments • Newspaper archives	Output A team to conduct the assessment and a list of vulnerable populations and available resources
Step 2: Identify and rank hazards -- List the natural disasters that the community has experiences i.e. cyclone, storm surge, flood, drought, etc. Ranking includes: frequency, severity, overall ranking	
Data • District government and line departments • Local knowledge (communities and civil society organisations) • Disaster Relief and Rehabilitation Commitrees • GIS maps • Newspaper archives	Output A list of threats facing the community and their priority
Step 3: Identify and map areas of greatest risk – Identify areas/sites vulnerable to disaster and mark these on a map.	
Data • District government and line departments • Local knowledge (communities and civil society organisations)	Output A map of areas at risk, e.g. coast, mudflats, storm surge areas, etc.
Step 4: Identify and map physically vulnerable people and properties — Determine responsibility for conducting the assessment, identify vulnerable populations in the community and collect relevant plans, studies, and reports.	
Data • District government and line departments • Local knowledge (communities and civil society organisations)	Output An inventory and map of people and property located in disaster prone areas
Step 5: Identify and map socially vulnerable populations – Identify vulnerable populations based on mobility, demographics, income, trust, networks, culture, etc.	
Data • District government and line departments • Local knowledge (communities and civil society organisations)	Output An inventory and map of vulnerable populations, including those in disaster prone areas
Step 6: Inventory and map goods and services required – Identify areas/sites vulnerable to disaster and mark these on a map.	
Data • District government and line departments • Local knowledge (communities and civil society organisations)	Output An inventory of goods and services required by disaster affected communities, and a map of the from where and how these will be transported
Step 7: Community ground-truthing – Consult community participants and other stakeholders to verify and validate the information collected in the previous steps.	
Data • District government and line departments • Local knowledge (communities and civil society organisations) • Data collected as part of the assessment	Output Verified maps and assessments
Step 8: Identify actionable steps and responses – Identify areas and people at risk, develop strategies to reduce risks from disasters.	
Data • District government and line departments • Local knowledge (communities and civil society organisations) • Data collected as part of the assessment	Output A report that identifies vulnerable areas and people and that develops strategies to reduce risks

This brief has been prepared under the Indus for All Programme. For further information regarding the material covered in this brief please contact: The Programme Management Unit, Indus for All Programme, Suite 606-607 Fortune Centre, Block 6, P.E.C.H.S., Shahra-e-Faisal, Karachi.