What is required to manage and respond more effectively to disasters and emergenc...

The first part of the 21st century was punctuated by a series of natural disasters, most notably the Indian tsunami, the earth quakes in Gujarat, India and Kashmir, Pakistan, the September 11 2004 terrorist attacks on the United States and Hurricane Katarina, Cyclone Nargis in Burma, and the Sichuan earth earthquake in China (Coppola & Maloney 2009). Reports indicate that individuals and communities struggled to cope in the aftermath of these and many other emergencies and endured a high risk of exposure to the consequences of these disasters which affected their likelihood of survival. Coppola & Maloney 2009). The first section of this paper presents the definition of a disaster and the subsequent sections examine basic concepts of disaster management and discusses upon those concepts to effectively manage and respond to disasters and emergences at local, national and international level. International Federation of Red Cross & Red Crescent Societies(2002, p.

8) defines " disaster" as a " sudden calamitous event that seriously disrupts the functioning of a community or society and causes human, material and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. This definition illustrates that any event that overwhelms a community's capacity to respond becomes a disaster and not all adverse events are disasters, only those that overpower communities' response capacity become disasters. Vulnerability and capacity by communities to deal with the consequences of an event determine whether a disaster or emergency event results (Coppola & Maloney 2009). (National Research Council Committee (NRCC), U. S. A, 2011)

notes that each year millions of people fall victim to disasters, of which hundreds of thousands lose their lives.

Earthquakes, floods, hurricanes, cyclones, tornadoes, landslides, terrorist attacks and many others will continue overwhelm individuals and communities. Individual, local, state, national and global effort is required to improve communities' ability to prepare for, absorb, respond, and recover from disasters (National Research Council Committee (NRCC), U. S. A, 2011). Due to ongoing natural disasters and increasing threats of terrorism, disaster management should be a major societal concern. It is imperative that disasters or emergencies be handled in a way that causes less harm to people and the environment (Davis, J & Lambert 2002, Buck 2011).

Disaster, emergency and crisis management helps to reduce human losses, suffering, property loss, and costs associated with natural and manmade disasters (Coppola, & Maloney 2009, Buck 2011). Governments play a central role in the management of catastrophic events however sometimes disasters leave national governments unable to effectively manage disasters on their own, therefore considerable assistance from non- governmental relief organisations, regional and international organisations is crucial (Pradyumna et. al 2011, Hernandez, J & Johnston 2011). Also may be interesting to read aboutCoppola and Maloney (2009) assert that effective disaster management is based upon four main dimensions; mitigation, preparedness, response and recovery.

Mitigation entails the elimination or reduction of hazards, identifying risks and taking measures to avoid preventable risks when disaster strikes

(Coppola & Maloney 2009). Mitigation ensures that hazards affect communities to a lesser degree and this can be achieved by developing effective Disaster Risk Reduction strategies (Piper 2003, Coppola & Maloney 2009). Piper (2003) further explains that mitigation involves implementation of structural and non- structural initiatives. Structural initiatives may involve strengthening of buildings in earthquake prone or cyclone prone areas. Non-structural initiatives may include, disaster management training, land use regulations, educating the public about disasters and encouraging individuals and companies to take various forms of insurance on their properties (Piper 2003). Disaster Risk Reduction strategies should primarily be a responsibility of the national governments (World Disaster report 2002).

For example in 2001 Cuba's effective risk reduction strategies enabled a safe evacuation of 700000 people hours before hurricane Michelle struck. In Havana electricity was turned off to avoid deaths from electrocution and water supplies were also turned off to avoid contamination with sewage. The Cuban government advised its citizens well in advance to store water and to clear debris from the streets that may cause damage (World Disaster report 2002). During the record floods in Mozambique in 1999, well-prepared local and national resources saved 34 000 people from drowning (World Disaster report 2002).

Furthermore in Viet Nam planting mangrove forests along the tidal coasts protects the vulnerable population along the shore from floods. Consequently mitigation and preparedness must form part of the wider context of risk reduction the World Disaster Report (2002) concluded.

Disaster preparedness can be defined as planning and taking action to make

sure that the necessary resources will be available in ime, to meet the predicated emergency needs and the capacity to use resources will be in place (United Nations High Commission for Refugees (UNHRC) Report 2002). Preparedness involves providing the population who may be affected by a disaster, or those who may be assisting those affected, with strategies which may increase their chances of survival and reduce damage and losses (Piper 2003, Twigg 2004).

The aims of preparedness are: knowing what to do in and after a disaster or emergency, knowing how to do it and having the appropriate tools to do it effectively. Preparedness involve community awareness and education strategy, early warning, building community resilience and capacity, training of disaster management personnel and addressing financial issues related to pre-disaster activities and post-disaster work (Piper 2003). All these preparatory activities rest primarily with the states governments ((UNHCR 2002 Report). Governments should make initiatives and be responsible for the establishment and implementation of national Disaster Risk Management policies coupled with the co-ordination of all disaster management activities within the country (UNHRC Report 2002, Rajib 2012). The introduction of the Cyclone Preparedness Program (CPP) and the Community Based Disaster Risk Reduction (CBDRR) in the coastal districts of Bangladesh in 1972 significantly reduced floods death toll. Bangladesh adopted the risk reduction approach in the aftermath of the most destructive cyclone Bhola in 1970 which caused 500 000 deaths as well as massive destruction.

Risk reduction strategies implemented by Bangladesh significantly reduced casualty rate, for instance in the 1991 cyclone, 150 000 lost their lives and in

2007 cyclone only 3 363 lives were lost (Rajib 2012). The Cyclone Preparedness Program is responsible for the creation of community disaster preparedness committees, establishment of extensive awareness- raising campaigns, training of the community in disaster preparedness, community first aid, and cyclone warning signals, shelter maintenance, and implementation of disaster preparedness measures such as installation of drinking water and food storage facilities . (Rajib 2012). It is not only national governments task to initiate and implement disaster preparedness activities (Department for International Development 2006). In Bangladesh international donors such as UNDP, Department for International Development (DFID), EU and the World Bank have showed their commitment to initiatives in community capacity building activities (Rajib 2012). Also numerous NGOs such as Oxfam, Care International are assisting in pre-disaster awareness and preparedness at household level and community levels (World Disaster Report 2002, Rajib 2012).

International Federation of Red Cross started the Cyclone Preparedness Programs in Bangladesh and Red Crescent Societies started them in India (Rajib 2012). There is a positive correlation between public awareness and positive disaster outcomes (Coppola & Maloney 2009). For example in Australia, the Northern part of Queensland in 2011 people were warned and thousands were evacuated safely before the severe cyclone Yasi struck (Queensland Government 2011). When the death toll from the 2008 Cyclone Nargis in Myanmar rose above 130, 000 people and when 250, 000 lives were lost in the 2004 Indian Ocean tsunami people asked, Why they were no systems in place to alert people of the incoming threats? Rajib 2012). Since

these and other major disasters the worlds are encouraged to focus on establishment of early warning systems as they lead to prompt evacuation and save lives (Cosgrove 2007, Rajib 2012).

Rajib (2012) argue that the 2008 cyclone Nargis in Myanmar resulted in 138 373 deaths and 2. 4 million people were affected by loss of family members or property because communities were not aware of the danger of the cyclone. Rajib (2012) clarified that although an announcement was broadcasted; many people overlooked the impact of the cyclone and others did not even have an idea how to prepare and where and when to evacuate. By the time the affected populations became aware of the danger of the cyclone, it was too late. The lesson learnt from cyclone Nargis is the need for better community awareness on disaster preparedness to enable them to plan properly, take action and mitigate disaster risk (Rajib 2012).

Individual households and communities are generally unaware of the hazards they face, underestimate those they are aware of and misjudge their ability to cope with disasters hence the need for international organisations and Non-Governmental Organisations to shift from emergency assistance and disaster response to more active roles in local disaster public awareness programs, vulnerability assessment and risk management practices (Rajib 2012). (NRCC, U. S. A. 011, Rajib 2012) stress that the government has a responsibility to protect vulnerable populations and communities and assist them become less vulnerable and more self-sufficient.

The government can accomplish this by creating a culture of resilience through; provision of education and the provision of appropriate resources,

training teenagers to provide assistance during a disaster. The teenagers will also help educate and train younger children about resilience in disasters. Consequently they will respond appropriately when disaster strikes (NRCC, U. S.

A 2011). Good disaster response does not undermine people's own coping strategies (Buzard 2003, Twigg 2004). Buzard (2003) proposes that disaster affected populations must not be seen merely as helpless individuals as they may possess skills, knowledge and capabilities to cope with and respond to emergencies. Individuals and communities can be really resourceful and resilient during disasters and emergencies, hence initial contact with the affected populations should account for the capabilities, skills and knowledge (Scott-Villiers 2000, Buzard 2003, Rajid 2012). Smawfield (2013) contends that one of the most overlooked areas in creating a culture of resilience is the role of schools in providing education and knowledge to communities to enable them to resourcefully respond to disasters.

Schools may incorporate disasters curriculum content and may necessitate non-informal education to the public on disaster response. For example in Australia bushfires are recurrent natural disasters, informing and educating the public to prevent, prepare for, respond to and recover from fires is crucial and will enable communities to respond appropriately to such disasters when they occur. Smawfield 2013). Response is the most difficult of the four components of disaster management because it is conducted during phases of very high stress, in highly time- constrained environment (Bazard 2003, Pradyumna et. al 2011, Coppola & Maloney 2009). Coppola and Maloney (2009) explain that response entails actions taken to ease the

impact of disasters that are about to happen, are happening or have already happened.

The scale and nature of the disaster dictates the response (Coppola & Maloney 2009). The response actions aim to reduce injuries, loss of life, and damage to property and the environment. Analysing the causes and effects of the disaster is critical during the response period because if the problem is not correctly identified and understood then it will be difficult, if not impossible to respond appropriately (Buzard 2003, Pradyumna et. al 2011).

Effective response to disasters require acknowledgement of the differing vulnerabilities, needs and capacities of the affected population. Factors such as age, gender, disability affect vulnerability and determine people's ability to cope and survive in a disaster (Buzard 2003). Failure to understand the different needs of the vulnerable groups and the barriers they have in obtaining equal access to right services and supports results in them being further marginalised, or even denied crucial assistance with water and sanitation facilities, food, health care, shelter and rehabilitation programs (Buzard 2003, Navrud et. al 2012). As soon as an appropriate response has been determined targeting mechanisms ought to be established that facilitates agencies to provide assistance impartially according to need (Buzard 2003).

Piper (2003) identifies key issues to be considered in disaster response as; management and coordination, early warning and evacuation of people, rescue of people /burying of the dead, providing immediate relief assistance, securing property and people's own going safety, resumption of critical

infrastructure such as opening transportation routes, restoring electricity and communications , damage assessment, information gathering and interface with media. The department of health has the responsibility to meet immediate health needs in the first days and weeks after the disaster. After the disaster people need specialized medical care and many people may not have medical insurances (NRCC, U. S.

A, 2011). It is important that health departments have both regional and international partnerships to assist with the provision of immediate health services. For instance before Hurricane Katarina, the Mississippi State Health Department felt that they were prepared for the hurricane. But within a few days it was clearly obvious that they were not prepared to address many of the issues they were presented with (NRCC, U.

S. A. 2011). Disasters leave people psychologically and emotionally traumatised. Mental health services are an essential service required to provide counselling crisis programs to support and help the victims and the affected communities manage in the aftermath of a disaster. Both medical and mental health services should be consistent and well coordinated across the affected populations (NRCC , U.

S. A. 2011). (NRCC, U.

S. A, 2011) assert that many failures in the disaster or emergency response are attributable to insufficient collaboration and communication among government bodies responsible for preparation and response. Piper (2003) suggest that disaster management plans should include; contact details of main people and agencies to be contacted in times of disaster, area map for

the area in question, existing government structures and responsibilities during times of disaster, other agencies and volunteer structures, personnel and responsibilities during times of disaster (Piper 2003). Piper (2003) explains that it is important to clarify which authority (e. g police, local government) will be in charge of the overall coordination and control of the response activities because soon after a major disaster, there is danger of chaos.

For instance, during the Indian Tsunami there was lack of coordination in disaster activities (Piper 2003). Everybody was doing their own relief services, numerous groups made independent assessments of were supplies and funds were needed most. As a result some communities ended up overwhelmed with assistance and other being underserviced or neglected (Piper 2003). Communicating information to the public is a vital component of disaster management particularly during the response phase and media can play a useful role in disseminating information (Piper 2003, Rajabi 2012). Disseminating information can achieved by using various methods – for example radio, electronic messages, phone, fax and even carrying messages by vehicle, bicycle or hand (Rajabi 2012). Recovery phase involves the repair, reconstruction or regaining what has been lost as a result of a disaster.

The recovery phase commence after the immediate response has ended and can continue for months or years thereafter. Recovery actions vary depending on the individuals, organizations and groups involved. (Abhas & Barenstein 2010) assert that reconstruction begins the day of the disaster and without financial resources, there will be no reconstruction. If

reconstruction begins the day of disaster, what does this mean to government? It means the government need to meet the reconstructions costs.

Abhas and Barenstein (2010) observe that most of the resources spent on reconstruction may not only be the governments. The World Bank Independent Evaluation Group (2006) states that, The World Bank responds to crisis and emergencies and it is the largest funder of disaster recovery and reconstruction in the world. (The World Bank Independent Evaluation Group 2006) suggest that The World Bank needs to be flexible and innovative when responding to natural disasters and should be more actively involved in developing countries since these countries have limited economic resilience . The bank needs to fund countries to provide assistance specific to its nique disaster situation (The World Bank Independent Evaluation Group 2006, Navrud et. al 2012).

Disasters are complex phenomena and effective disaster management helps to reduce human losses, suffering, property loss, and costs associated with these catastrophic events. Primary concern of national governments should be disaster management and it involves four major fundamentals; mitigation, preparedness, response and recovery. Well before disasters governments must implement hazard reduction programs, identifying risks and take measures to minimise risks. Individual, local, state, national and global effort is required to improve community's ability to prepare for, absorb, respond, and recover from disasters.

Occasionally disasters leave local and neighbouring governments unable to effectively manage disasters on their own, thus considerable assistance from non- governmental relief organisations, regional and international organisations is essential. Regional and international community is encouraged to offer humanitarian aid as well as engage in disaster risk reduction activities.