# C4D IN EMERGENCY RESPONSE

CASE STUDIES: GOOD PRACTICES IN RISK COMMUNICATION

CASE STUDY: HURRICANE SANDY AND USE OF SOCIAL MEDIA

CASE STUDIES: EARLY WARNING SYSTEMS AND MOBILE PHONE APPLICATIONS FOR EMERGENCY SITUATIONS

INFORMATION SHEET: EMERGING INFECTIOUS DISEASE

## COMMUNICATION IN DISASTERS AND EMERGENCIES

### SUMMARY

Disasters are events that disrupt normal conditions of existence and cause suffering that exceeds the capacity of adjustment of the affected community. Emergencies are situations in which extra-ordinary measures are taken to avert or address a disaster. Disasters are classified by natural and technological or man-made hazards and are a combined effect of the hazard, the vulnerability of communities and exposure of populations. Disasters, especially natural such as floods and storms, have been increasing in recent decades due to economic development patterns, population rise, urban overcrowding, poor planning, unsafe settlements and construction, and climate change. Although disasters affect health, property, assets and incomes of entire populations, they often disproportionately impact disadvantaged groups, and recovery efforts are often inequitable with resources not reaching those who need it the most.

Although eliminating hazards that cause disasters may be difficult, they can be managed more effectively by reducing exposure to hazards; lessening vulnerability of communities; proper management of land and environment; improving preparedness and early warning for adverse events. The Sendai Framework for Disaster Risk Reduction (2015-2030) – overseen by the UN-International Strategy for Disaster Reduction (UNISDR) - is a 15-year, voluntary, non-binding agreement adopted by UN member states in 2015 which recognizes the State's primary role to reduce disaster risk.

This brief presents TEN things to do in disaster and emergency communication that have been used successfully and recommended by international agencies. Governments and development partners have to institutionalize these good practices of disaster communication, strengthen existing disaster management and information systems, and listen to and build strong relationships with communities for better control of disasters and emergencies in the South Asian region.

## DISASTERS AND EMERGENCIES

A disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society. It causes human, material, economic and environmental losses that exceed the community's ability to cope using its own resources.[i] An emergency is a state in which normal procedures are suspended and extra-ordinary measures are taken in order to avert a disaster.[ii]

Disasters are classified on the basis of causal hazards into natural and man-made or technological. Natural hazards include earthquakes, floods, storms, landslides, drought, tornadoes, tsunami, volcanic eruption, among others and technological hazards including industrial accidents such as oil spills, gas leaks, nuclear accidents, transportation accidents, collapse of buildings, fires, and explosions.[iii]

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In the 20 year period between 1994 and 2013, natural disasters affected every continent. Asia bore the brunt: of 6,783 disasters worldwide, 2,778 (40%) were in Asia with floods affecting the largest number of people and storms the most damaging economically. Of 1.35 million deaths and 4.1 billion affected globally, 841,000 (62%) deaths and 3.8 billion affected (75%) occurred in Asia. Around half of the total economic damage of 2,582 billion, was in Asia (1, 285 billion). The South and South-Eastern regions of Asia were hit most frequently by natural disasters, recording 2,481 events or 36% of all disasters.[iv] In fact, 8 of the 10 countries with most disasters in the period 2005-2014 were from Asia with three of them - Afghanistan, India, Pakistan - in South Asia. Furthermore, Bangladesh is also at high risk of natural hazards with 40% of all storms that occur globally affecting this country.

## CAUSES OF DISASTERS AND EMERGENCIES

Disasters result from a combination of three elements: hazards, vulnerability and exposure of populations. Vulnerability of populations increase the susceptibility of a community to the impact of a hazard and are caused by physical, social, economic, governance, and environmental factors. Exposure of people and property to hazards is increasing due to economic development patterns, rising population, and increasing urbanization. The vulnerability of urban poor communities is amplified due to unplanned settlement and unsafe construction of houses in hazard-prone areas of the city with poor infrastructure. Lack of urban planning, weak disaster management, and poor information and communication mechanisms compound the problem.[v] Growing population coupled with pressure for resources has led to environmentally unsound practices in both urban and rural areas. For instance, destruction of mangrove forests and coral reefs along the South-East Asian coastline has reduced levels of protection against tidal waves and flooding. In Pakistan, the clearing of mountain forests has intensified the rate of soil erosion and consequently heightened the scale of flooding.

Climate change and the increasingly frequent occurrence of "climate extremes" aggravates the situation and contributes to increased frequency and severity of disasters. Major indicators of climate change continue to reflect trends consistent with a warming planet: levels of carbon dioxide ($CO_2$), methane and nitrous oxide - all the major greenhouse gases that drive global warming - have risen dramatically.[vi] Since 2000, an average of 341 climate-related disasters have been recorded per annum, up 44% from the 1994-2000 average and over twice the level in 1980-1989.

Within developing countries, the poor often bear the brunt of disasters as they are located in areas that are more vulnerable to floods, hurricanes and earthquakes. Disasters disrupt food production. The poor lose assets and livelihoods, and lack access to risk- sharing mechanisms such as insurance. Recovery efforts sometimes do not reach the most disadvantaged.

## GLOBAL FRAMEWORK FOR DISASTER RISK REDUCTION

The Sendai Framework for Disaster Risk Reduction (2015-2030) – overseen by UN-International Strategy for Disaster Reduction (UNISDR) - is a 15-year, voluntary, non-binding agreement adopted by UN member states in 2015 at the World Conference on Disaster Risk Reduction held in Sendai, Japan. It recognizes the State's primary role in reducing disaster risk but also issues responsibility to other stakeholders including local government, private sector and other agencies. Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters by reducing exposure to hazards; lessening vulnerability of people and property; properly managing land and environment; improving preparedness and early warning for adverse events.[vii] Strong commitments from countries to mitigate the consequences of climate change, development cooperation and continuous disaster preparedness will help in this global endeavor.

## COMMUNICATION IN EMERGENCIES AND DISASTERS

Communication is now firmly accepted as a critical function in disaster and emergency management. Communication management in emergencies is the organization and management of resources and responsibilities for dealing with all aspects of communication and works through all the phases of disaster management.

**Preparedness phase:** communicate messages that encourage and educate the public in anticipation of disaster events.

**Response phase:** provide the public with notification, warning, evacuation, and situation reports on the ongoing disaster.

**Recovery phase:** communication provides individuals and communities affected by a disaster with information on how to register for and receive disaster relief and also how to prevent diseases and epidemics or other problems faced in centers.

**Mitigation phase:** communication promotes those actions that will reduce the loss of lives and property in future disasters.

Communication management involves plans, structures and arrangements established to engage the normal endeavors of government, voluntary and private agencies in a comprehensive and coordinated way to respond to the whole spectrum of information and communication needs of communities and stakeholders. For instance, communication infrastructure is important as it helps send messages to disaster-affected people using electronic channels. Therefore, disaster communication teams have to work closely with power companies to ensure some source of electricity in affected areas. Recently, Hurricane Maria (2017) led to complete power outages, still unrectified, in some areas of Puerto Rico and could be an indicator of the severity of the hazard as well as lack of anticipation in planning phase.

However, telecommunication infrastructure damage can be overcome using creative or low-cost technology methods. During 9/11 in New York City, communication lines were congested, and low bandwidth email and instant messaging were used in lieu of regular telephone service. In the 2008 earthquake in Sichuan province, China, text messages were sent to mobile phones of citizens asking them to evacuate when water levels of a lake rose to dangerously high levels. In 2005 during Hurricane Katrina in Louisiana, authorities could not send electronic messages at all and had to use low-cost creative alternatives such as deploying personnel from the department to pass relevant messages such as where to find safe water, avoiding electrical hazards and injuries, relevant health messages and managing stress to prevent violence in evacuation and emergency centers

Effective communication planning ensures end-to-end coordination from establishment and proper use of early warning mechanisms; timely information dissemination to vulnerable populations, to distribution of emergency relief and control of any epidemics or other physical and psychological problems in evacuation centers. These conditions must be established early on in the context of disaster preparedness measures, and must, where necessary, be tested and accompanied by corresponding training and simulations. Communities have other priorities. People often perceive the immediate circumstances of daily life (economic, social, safety issues) as more important than situations of risk in the future. They do not recognize their own vulnerability or think of natural disasters as inevitable and have a fatalistic attitude.

## TEN THINGS TO DO

A list of practices to be followed in emergency or disaster communication

### 1. Plan
A risk communication plan or protocol is created detailing all possible situations before, during, and after an emergency with the corresponding communication activities, persons responsible, along with partners, resources and budgets. The objective is dissemination of timely and accurate information.

### 2. Taskforce
Representatives from concerned and intersectoral departments and external partner agencies meet regularly to facilitate conduct of activities in plan and coordinate at different levels of government.

### 3. Assessment
A rapid, yet thorough, assessment of vulnerabilities, capacities and resources in communities that will help during the response; includes assessment of communication infrastructure; mobile phone availability and access; and social media use and access.

### 4. Dynamic Listening
To understand public concerns and needs, "listening" mechanisms have to be built before an emergency. The methods are: media monitoring; social media surveillance; analysis of helpline or website comments; stakeholder meetings; surveys and focus group discussions; home visits; interviews; public forums. These findings can also help identify and dispel rumors.

### 5. Coordination with Partners and Stakeholder engagement
Partners help garner support and ensure efficient disaster management operations. In a disaster, several international aid agencies come on site. Effective coordination and clear communication lines help avoid duplication of efforts and any chaos. Stakeholder engagement is critical, especially with staff from local services such as fire, police, medical, armed forces, telecommunication and IT companies, media agencies; power and water companies; transportation authorities; industries (hazardous chemicals); businesses; environmental agencies; NGOs and faith-based agencies.

### 6. Formative research and Audiences for communication
Clearly identify audience segments; which can be classified by vulnerability to disaster. Identify information needs and concerns of each segment across the stages of a disaster and appropriate communication channels for each segment.

### 7. Messages, materials and communication channels

Craft and pre-test appropriate messages with audience segments. The public expects information and the government should provide correct information rapidly. An information vacuum can lead to incorrect messages from social media or sensational coverage by mass media. This can lead to delayed or wrong decisions. The public responds best to straightforward messages. Community response is often better when messages call for simple actions that are easy to carry out.

### 8. Media engagement

Establishing partnerships with the media helps amplify the voice of the disaster team with respect to information provision. Media agencies have to be engaged and their needs understood in the preparedness phase. Periodic training sessions for media, designation of credible spokespersons, and a media engagement protocol with key messages, responsibilities, permissions and processes are required.

### 9. Community engagement

In order to ensure that required actions take place at the local level, volunteer networks and leaders are trained and empowered to receive and disseminate hazard warnings to households and communities. Community engagement assures greater reception of key messages and strengthens community capacity to deal with disasters.

### 10. Social media engagement or Use of Information Communication Technology (ICT)

Social media and ICT (information-communication-technology) are being increasingly used as an important communication channel in many recent disaster or emergency events. They help reach more people more quickly during disasters. Getting into the social media space early allows listening to and monitoring discussions, and disseminating accurate, timely and authoritative information. Most importantly, this is an interactive platform that enables dialog with communities.

## REFERENCES

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