

Communication and Disaster Management: The Need for Proactive Planning in Nigeria

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Abstract

Disasters constitute challenges to development, life and property and environmental protection, and as such disaster management should accompany development efforts. Concerted effort in disaster management involves different stakeholders who are to be constituted and managed through effective interagency linkages and effective coordination engendered by a flexible disaster management policy. This paper posits that effective disaster management results from understanding a community's disaster situation and the process of disaster management, and designing a disaster management policy. It also discusses the communication demands of disaster management and underscores the importance of disaster handling evaluation in recursive policy revision.

Key Words: Disaster, Disaster Communication, Disaster Management, Disaster Management Policy, Interagency Linkage

Introduction

Many disasters strike without warning, but some give warning and yet some activities such as oil and gas exploration inherently engender disaster. However, whether it was a tsunami, Hurricane Katrina or Jesse pipeline fire disaster, disaster management usually leaves a lot to be desired. Our assessment of the effectiveness of disaster management is often defined by what could have been done under a given circumstance. For example, it may have been impossible to stop the bombs of 9/11 (11 September 2001) from destroying the World Trade Centre and taking many lives with it, but what was or is being done after reveals what policy is put in place for disaster management, in terms of preparedness, response, effort at recovery and the humaneness of the entire exercise.

The essence of disaster management is the protection of lives and property, and for the purpose of sustainable development, environmental protection has become imperative. Little can be done if there is poor concern for what happens to other people and the environment. On the other hand, it is only a mother that can walk into a fire to save her child – expertise, resource availability and managerial skills are indispensable in successful disaster management. All of these will be inoperative where there are no policies or laid down procedures to guide disaster management efforts. And what makes any plan workable is effective communication, and constant revision of regulations and procedures as experience is gained.

Some natural disasters, such as hurricanes, tsunamis and flooding could be regular occurrences. Wild fires could be natural experience where extreme weather conditions create conditions conducive to wild fires. Yet in some places disaster experiences could be wide and between. Whatever the case, a trend can be observed upon which disaster management policy and organs can be designed and set up for disaster management. In addition, it has become necessary to look beyond the propensity to disaster or lack of it, to an examination of trends in other parts of the world or nation to be able to prepare or at best prevent imminent disasters. Desert encroachment and other aftermath of degradation is a case in point, as well as the effects of urbanisation.

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Degradation in Mokwa (Niger State) and parts of the south east can be linked to the effects of urbanisation or constructions in areas prone to erosion. It follows then that an effective disaster management policy should be adequate for managing today's disaster and for preventing future disasters. An example is when towns and cities (and villages) are planned and procedures laid down for building, industrialisation, expansion, etc. that will apply even decades from the date of plan, and having an eye on potential future disasters – how to prevent disasters and manage eventualities. The world has come a long way, and people do not have to wait for disaster to befall them before doing something about it. We can get ahead of disasters. Taking a look at the cost of poor or no planning in some cities, steps can be taken to prevent other unplanned cities and towns from springing up by planning “Abujas” all over the country. Besides, market fires should not occur in such enormity if market lanes are constructed to allow for the penetration of fire fighting equipment and men and if such lanes and drainages are fanatically kept free by preventing squatters and litters.

Efficient disaster management is not reactive but proactive. Having in view the disaster management needs, the agencies to be involved are created or identified, since for instance the fire stations may not manufacture their own water, security agencies cannot put out fire, etc. For the efficient involvement of relevant agencies in times of disasters, policies and procedures are required detailing where, when and how each one comes into a disaster scene. A disaster management system should weave agencies, private and public organisations together in effective disaster control. In proactive disaster management, people know exactly what to do at times of disaster and how to go about it, because there are already laid down procedures and resources.

The ingredients of disaster management system therefore should include statements defining policy goals, identifying and setting up disaster management agencies, inter-agency integration and system of communication. Krischenbaum (2004: 41) observes that “most of the problem areas that are consistently brought up by disaster managers are related to organizational issues, especially inter-organizational conflicts and problems related to coordination.” Krane (2007) makes similarly assertion also including matters of command and control, equipment, infrastructure design, mission clarity, planning, shelter, supplies, transportation and training.

Efficient disaster management is a learning process which allows creativity in disaster mitigation and management (Comfort, 1988), and calls for adequate understanding of disaster, disaster management and policy design.

Effective Disaster Management

Understanding disaster situations

Cigler (1988: 40) describes hazard as “threats to life, well-being, material goods, and environment from the extremes of natural processes or technology. Extremes in the natural environment include floods, earthquakes, tornadoes, volcanic eruptions, landslides, tsunami, and drought. Technological extremes include chemical spills, accumulated exposure to chemicals, nuclear accidents, and other events caused directly by human activity.” Each community would have its own sets of hazards or disasters peculiar to it, and understanding them is a crucial step to designing effective holistic disaster management policy for the given locality. As Sylves (2008) observes, locations can be mapped for disaster agent types and frequency of disaster, from which projections of possible future recurrence can be made, and mitigation planned.

Further, Comfort (1988: 41) observes that “hazards ... are a consequence of both the physical and social systems and the interaction between them.” Similarly, McEntire, Fuller, Johnston and Weber (2002) urge managers to look beyond the agents of disaster and recognise social, political, economic, cultural, and other variables that lead to disaster in order to design comprehensive disaster management policies. An example in Nigeria is

flooding and degeneration of roads in cities which could be linked to the people's habit of disposing rubbish in gutters – clogged drainage forces water onto roads, eventually damaging roads and gutters, and causing flooding. Flooding in Lagos is also associated with constructions that block flood ways. Comfort (1988: 4) warns that “as the numbers of people, structures, and technologies increase and interact in vulnerable physical environments, particularly in metropolitan areas, the likelihood of natural hazards or technological failures becoming catastrophic events in these environments escalates rapidly.”

Understanding disaster management

Disaster risk is more magnified in less developed countries than the developed, because of inadequate appreciation of what emergency situations entail as well as poor capacity for disaster prevention and management. Inadequate planning and poor decision making can increase the adverse effects of disasters. Gerber (2007) highlights four issues of basic importance in the discussion of disaster management:

- (i) the concept of disaster vulnerability,
- (ii) the question of how individuals and communities respond to hazard risks (also Macias & Aguirre, 2006)
- (iii) the policy and political challenges of hazard mitigation (how does institutional response affect disaster management and individual behaviour during disaster), and
- (iv) the idea of policy learning from key disaster events

Moreover, Cigler (1988) suggests that a four-stage cyclical process to disaster management that can protect life and property includes: pre-disaster mitigation/prevention, pre-disaster preparedness, disaster response, and post-disaster response or recovery. “The mitigation phase of emergency management includes those activities that reduce the degree of long-term risk to human life and property from natural and technological hazards” (Pavlak 1988: 26). These may be structural and non-structural, the latter including land use regulation, zoning laws, building and safety codes, community education, economic programmes, disaster insurance programmes, tax incentives and disincentives, and hazard and vulnerability analyses (Cigler, 1988; Pavlak, 1988; McEntire et al., 2002); and protective structural measures of engineering works such as dams, levees and sea walls. Experience indicates that natural disasters can be contained (Cigler, 1988; McEntire et al., 2002) through the employment of proactive measures.

Preparedness for emergency response is a proactive measure that is to be constantly reviewed as experience is gained. It is engineered by policies and executed by different agencies. Developing countries stand to gain from the experience of other countries in designing disaster preparedness, especially nations that share similar disaster experiences. In other words, they can jumpstart by examining the disaster preparedness programme and response of other nations, and designing the local response policy and strategies as relevant. Thus, developing countries need not allow loss of life and property by waiting to learn from scratch what is required for effective response to disaster. As already mentioned, understanding the disaster(s) that a community is prone to is a major step towards designing effective mitigation and response process.

Waugh (1988: 113) lists the factors addressed in the US Federal Emergency Management Agency's (FEMA) Integrated Emergency Management System (IEMS) operational model, and which is encapsulated in "any activity that develops operational capabilities for responding to an emergency." The guiding principle for effective preparedness is to envisage possible scenarios and work towards finding solutions to them (Wamsley & Schroeder, 1996). Johnson (2006) observes that if the worst case is

anticipated and planned for then whatever comes up can be handled. Anticipating disaster is crucial at community, state and national levels in order to design mitigation measures and be able to protect life, property and the environment in the event of a disaster. In essence, disaster response should be proactive, entailing adequate preparation of responders, and ensuring linkages for effective control of emergency efforts.

Designing disaster management policy

Bearing in mind that one incident can vitiate the efforts of several years, disaster management policies are to be aligned with sustainable development goals. In so doing, it must be borne in mind that it is a continuous learning process that lead to proactive decisions on disaster mitigation and preparedness. According to Waugh (1988: 115) tests indicate that the principal policy problems to be addressed are:

1. the acquisition of information on the nature of potential hazards and the risks that they present;
2. the kinds of mitigation and preparedness actions that are technically, as well as economically and politically, feasible and effective;
3. the development of clear preparedness program objectives and the allocation of ample resources to meet those objectives;
4. the designation of appropriate lead agencies, coordinating bodies, and responsible authorities; and
5. the cultivation of public and official support for disaster preparedness programs.

The above, taken together, indicates that the problem to be tackled is first structured. The composition of the Ministry of Niger Delta in Nigeria, for example, will indicate the structuring of the problem the ministry is to address. McEntire et al. (2002) examined paradigms of disaster management, each of which required particular set of professionals in structuring the disaster problem and proffering policy solution to disaster mitigation and management. “The Disaster-Resistant Community” conceptualisation (relating to geography, engineering, and urban planning) of disaster management required different academic disciplines from those of “The Disaster-Resilient Community” conceptualisation (relating to social factors – economic, emotional, and cultural aspects of recovery). Thus, proper structuring of the problem precedes the design of an appropriate policy and action (Pavlak, 1988).

Discussing the problem among people of different disciplines and/or concerned community creates an avenue for understanding different perspectives to the issue on hand and arriving at acceptable goal and procedure for tackling a disaster situation, and thereby limiting opposition. Decision making on disaster management is to be a product of discussions and brainstorming by those concerned, whether a community or agencies, to first arrive at a collective understanding of the problem and then proffer procedures for handling it.

However, disasters do not occur in any predetermined manner. Therefore, because of the peculiarities of emergency, Comfort (1988) avers that uncertainty is an integral part of emergency management design and that disaster management should be a learning process among the agencies involved in disaster management decision making. He therefore designed a model for “consciously determining rational action to achieve intended goals in the continual flux of the social environment” (p.8)

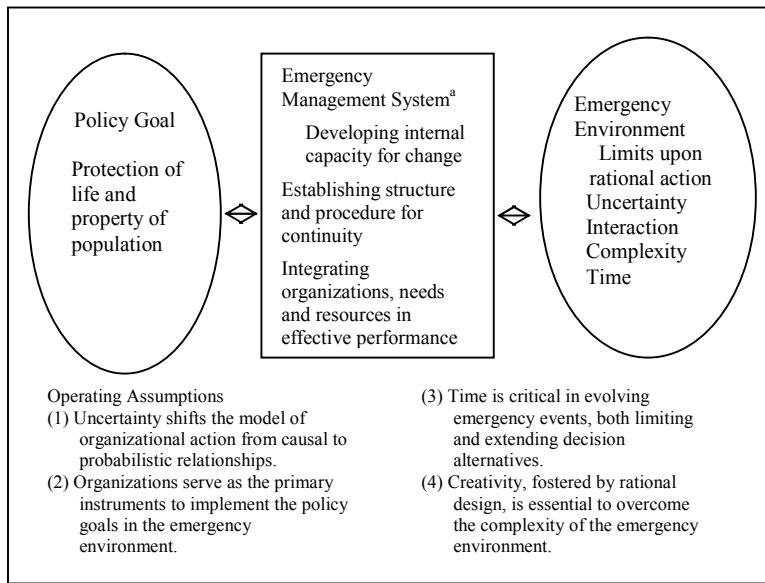


Figure 1: A Model of Professional Design in Emergency Management Model (Comfort, 1988: 7)

Because no two emergency situations are the same, unforeseen circumstances would arise, requiring creative responses; what is learnt in each situation is integrated into existing policy and strategies. The handling of each disaster event should be evaluated with a view to revising policies in line with new learning, especially in very peculiar cases. Gerber (2007) points out the kinds of learning that could take place:

- instrumental learning, which refers to improved policy instruments or implementation practices;
- social learning, which refers to changes in understanding of, and beliefs about, problems and solutions within the domain; and
- political learning, which refers to the prospects for policy initiatives within a domain.

Communicating Disaster

Disaster management include prevention, preparation, response, mitigation and recovery. People and communities can be spared from seasonal natural disasters, such as flooding and drought if the meteorological centres give early warnings and if the warnings are passed on to the people. Such warning should go to the government bodies as well as to the people. If both sides are adequately informed, the people can decide to press for action, on the one hand, and on the other, should the government decide to take prompt actions, it would not be misunderstood by the people, especially where such action may include relocation, or suspension of farming for a while. It is important to recognize and use existing social structures under such circumstance to manage or prevent disasters.

Effective communication is the bedrock of disaster management. Communication is an issue among agencies concerned with disaster management as well as the people or victims of disaster. People need to be taught what to do when a crisis occurs. This may start by educating them about the potential dangers in their locality and how to cope in emergency situations.

Knowing how people in a community learn to assess risk and cope with life-threatening events could help in emphasizing good behaviour or in working towards changing cultural ways that are inadequate for disaster prevention and management. On the one hand, people's way of life may support disaster management or pose problems for disaster management. For example, building houses too close to each other may pose problems in managing fire outbreaks. On the other hand, information managers and government agencies need to know a people's mindset in order to come up with recommendation for designing a workable government regulation on effective land use and building for both residential and industrial purposes. It is also the role of the communication people to inform people of such regulations. This becomes the more important because as populations (people, buildings and industry) increase, so also will the incidence of disaster.

Prevention involves risk assessment. It is the professionals that should make the assessment and communicate findings to government. Similarly, the information people should communicate observed danger signs to the appropriate agencies as a means of preventing dangers and reducing underlying risk factors.

People should have link to the information people or disaster management agencies in their localities. They should know how and who to contact in times of danger. In developed countries people have access to emergency telephone numbers (that work). Without communicating disasters to the appropriate quarters, there is no way it can be managed. Recognizing the nature of emergency is to ensure that very little time is allowed between the start of the disaster and the arrival of help. The press office of Newcastle indicates its media plan during crisis: "Newcastle City Council operates a 24 hour media service through a duty press officer scheme. In an emergency the press office will be notified according to the call out procedure. The Head of Communications or Senior Press Officer will be contacted immediately. They will contact the duty press officer and where possible other press officers" (<http://www.newcastle.gov.uk/core.nsfia/mediadisaster>).

"Journalists from a small local paper were at the scene shortly after the incident began. Other reporters did not arrive until 90 minutes into the crisis" (Steiner Jr. 2001: 53). The need to train people on how to manage crisis, and to connect them with information people directly in charge of disaster management is of utmost importance. As a crucial element in the preparation for crisis management, linkages should be established and publicised long before any crisis occurs.

Preparedness is also predicting or anticipating what can happen and determining what to do if it does happen. Focusing attention on the potential victims in such circumstances should guide what type of communication should be designed in preparing people on how to help themselves and on how to seek help. Establishing access to means of communication during crisis guarantees that people in danger will have reduced apprehension. In many cases, people could be told what to do why help is underway. There must be a commitment to helping people overcome disaster, and this is not possible without a sure means of reaching help. Krischenbaum (2004: 46) gives this example: "Target Notification services will provide residents with, 'immediate and timely notification of emergencies such as natural disasters, missing children, or civil disturbances' serving nearly 3 million telephone numbers."

The Newcastle media policy states its objectives with respect to response to disaster as including:

- issuing factual information to help relieve public apprehension and quickly rebutting any serious misinformation
- assisting the rescue operation by publicising emergency information such as telephone numbers

- managing the media so that they do not impede any rescue or cause unnecessary distress
- help draw national or international attention to the plight of the victims and families, for example, through any disaster appeals.

When the Central Bank of Nigeria building in Ibadan was on fire in 2007, a radio station was very helpful in calling for help so that those with appropriate equipment could assist in putting out the fire. Fortunately, a company came to the rescue. Hazard management should involve private and public sector in planning, enforcement and mitigation. Integrating patterns should link individuals as well as agencies in emergency activities: inter-organisational, interdisciplinary and inter-agency – police, fire, public works, emergency medical services, civil security bodies, etc.

In responding to disaster, there is need for inter-agency cooperation. Disaster cannot be managed without communication among the agencies and between the agencies and (government and) people. Interagency linkages will limit decision making time, especially if a director with an oversight/management function for management operation is appointed. Even in situation where the wrong agency is contacted, it will be in a position to know how to reroute emergency calls to the relevant agency or individual. Information people should know who to contact and how to contact the person.

People should be trained on how to report disaster, so that when they call or visit they can make a report that is precise (nature of disaster and details), concise and incisive. This training is required for the people as a whole as well as the information people who may be responsible for connecting people with help. Communication skills can be taught in schools, trade associations, in radio dramas and other such avenues for now, and later via the Internet. As already indicated above, the broadcast media is very useful in alerting people about disasters. They could also be used to send messages to those in danger, say if trapped in collapsed building, or if they are cut off. Tension will be minimised if such people are told about what help is coming and how to reach help; and the spread of disaster to neighbouring villages or communities or house could be reduced by communicating to those close to danger what to do.

It should be easier to tackle disasters today since there are sophisticated technologies and communication networks. Such information can be relayed at time of crisis, after crisis, and during recovery and rehabilitation, and in the prevention of future occurrences. Considering that radio messaging is a means of wider communication, radio links could be established with all villages. Links to towns and villages, cities, local government areas, state are needed to ensure cooperation as well as minimise losses in threatening situations. Interconnectivity is not negotiable in responding to crisis

It is important to build credibility into a communication system to avoid false alert and ensure that disaster managers respond adequately to warning. There could be means for checking wolf-wolf alerts.

It is not enough to rescue people from disaster. The attendant problems people face from disaster situations must be communicated to the appropriate bodies, governmental and nongovernmental. An assessment of the situation will reveal the people's need, but more so if they are involved in the effort to assess and ameliorate the attendant loss. A superior body should rapidly make assessment of the situation and what is needed. We note from the Newcastle media policy that the press office will "help draw national or international attention to the plight of the victims..." Until the victims are properly reinstated, the disaster has not been adequately managed. If we realise that in most cases the victims are not in the position to fight for their restoration, then it has to be the responsibility of the information people – officers and journalists. As is done by the Weekend file of NTA, information officers and journalists in their respective practices should constantly draw government attention to injured people so as to give them hope again. After the WTC was bombed, an Infrastructure Working Group comprising federal,

state, local and relevant private agencies was set up by the federal and state agencies (FEMA and NY SEMA) to manage the recovery of the building.

Sometimes, the people themselves can be encouraged to solve their own problem by mobilising relevant resources, knowledge, and personnel to take appropriate and timely action under emergency conditions. But definitely, as the WTC, they will often need support from outside (Howard & Buck, 2002). People involvement is always important in ensuring a successful recovery effort.

Evaluating Disaster Management

Writing about the response to earthquake disaster that took place on 12 May 2008 in a southwest China province, with particular reference to information access and communication, Hepeng (2008) commended the positive impact of a new regulation on open government information on the reporting of the disaster, but observes that "...additional measures and efforts are needed. And some of these measures must be implemented not only by government officials, but also by a wide range of people engaged in the process of communication." Further, specifically on the disaster itself, Hepeng draws attention to contributing possible man-made errors, including "poor construction of schools in the region and the impacts that the many dams along the Minjiang, or Min River, may have had on landslides caused by the quake."

After each disaster evaluative questions should be asked with a view to correcting inefficiencies observed. To be considered are the resources available to disaster management bodies and responders to do their duties without loss of lives, since being humane does not imply the sacrifice of oneself in the execution of duty. There must be material and logistics for effective management of disasters – people, aircraft, vehicles, vessels, relief supplies, emergency responders, disaster relief centres, field hospitals and emergency communication capabilities (Reinhardt, 2006). Reinhardt suggests that a leaf be borrowed from how private sectors run their businesses so as to emulate their prompt and efficient response and timely supply of material. Kent (2006) notes that disaster management strategies of companies can be integrated into the community disaster management efforts, as indeed Viera (1991) reports of Xerox El Segundo which extended its disaster management programme to the Los Angeles County in California.

Disaster occurrence can be reduced when stakeholders collaborate to examine situations critically and design programme of action. Networking governments (at all levels) and communities with private sectors (mining, oil explorations, plantations, etc.) and with all communities whose activities have impact or a bearing on the life of a given community is a step that can accelerate the understanding and management of crisis. They are important in disaster preparedness as well as recovery. After a disaster, all stakeholders should evaluate the situation with a view to effective recovery and restoration, as well as adjusting beliefs held about disaster vulnerability, response and mitigation

Communication links among villages and the local government headquarters is important. So what is the connectivity in the area? If there is no connectivity, what is the quickest means of communication and access, and have these been tested and proven effective? Kief and Nur (2002: 85) recommend that an integrated media approach should be used: "An integrated media approach comprises communication avenues such as participatory communication approaches (PCA), participatory workshops, community leaders' training, posters, and radio talk shows."

Phone-in programmes in broadcast houses can feature experts who could advise people on disaster issues. Such programmes could also be an avenue for learning about people's needs in different parts of a larger community (e.g. a state), raising awareness about risks and disaster mitigation in a given area. Moreover, environmental education at school can go a long way in getting information to the society as Kelman (2004) notes

that children will take information home to parents. Children and adults should be taught emergency strategies as well as safe behaviours: what to do when there is fire, what to do when there is a burn, what to do when a person cannot breathe, etc. It is interesting to note that the October 2007 fire disaster in California was started by a ten year-old boy playing with matches.

A programme that ensures appropriate training and drills of those involved in disaster management at regular intervals each year should be adopted. And training could also be extended to people in the community. Efficient preparedness for disaster response does not come overnight, but requires creativity and learning.

Conclusion

Every day brings the possibility of a disaster and preparation is the only defence (Steiner Jr. 2001). With a policy goal to protect man and property during emergencies, there has to be people and government involvement, as well as interagency integration and cooperation, for disaster management to succeed. To ensure communication linkages for disaster management, effective communication system and network that can be operational even during disasters is imperative. Further, disaster management agencies should be linked with centres concerned with a type of disaster so that people know who they are, where they are, what they can do and how to reach them. In areas with peculiar persistent disasters, such as communities where oil and gas exploration is carried out, methods for warning people during disasters should be devised.

Disaster management bodies should be networked horizontally and vertically. Horizontally within a government system, say local or state, and vertically in relationships with higher bodies, for example local emergency body relating with state emergency body and the state emergency with federal body. By policy arrangements there should be linkages for support and for proper reporting of disaster cases.

The development issues and crisis in the Niger Delta are traceable to failure to manage disaster situations and hazards in the area proactively. In view of the principle of sustainable development, especially equity and protection and management of the environment and ecosystem, a deliberate disaster management effort is a sine qua non for resolving the Niger Delta issue in the long-term.

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