

DISASTER MITIGATION AND RESPONSE OF GOVERNMENT: COMPARATIVE STUDIES BETWEEN KELANTAN, MALAYSIA AND JIGAWA, NIGERIA

277

Kehinde Adekunle Aliyu & Nurul Hazany Halim

Received: April 4, 2017
Revised: April 7, 2017
Accepted: April 10, 2017

School of Applied Psychology and Social Policy
Universiti Utara Malaysia.

Corresponding Author: aliyuadek@gmail.com

Abstract

The incessant occurrences of natural and human induced disasters have become a serious menace to the World especially in the developing countries. The low level of technological know-how employed to combat disasters adds to the problem. This paper looks at the implication of lack of political will using unpolished and inaccessible methods of managing risks and disasters in both rural and urban areas of the two selected places in Malaysia and Nigeria at the expense of cheap, reliable, precise method of management and remote sensing technologies. The aim of this work is to compare the political will of the government on disaster management and asserting the roles of government and social workers in assisting the victims. Mixed method research design was adopted for the work. Data collected with the secondary data and interview Schedule for the affected community people. This was administered to a group of people in both country, which comprises male and female in the Kelantan and Jigawa respectively. The researcher conducted an interview with the participants to see how they viewed the government response to disaster management. The focus of the data collection was on the roles of government regarding the mitigation of disaster in the two community in line with family welfare. The purpose of the study was to compare the responsiveness of the both countries governments and to show how both can learn from each other's mistakes and generally learn from developed countries.

Keywords: *disaster, mitigation, response, initiatives,*

Abstrak

Kejadian gencarnya bencana alam dan manusia telah menjadi ancaman serius bagi dunia, terutama di negara-negara berkembang dan juga masyarakat. Dengan tingkat pengetahuan teknologi rendah yang digunakan untuk memerangi bencana menambah masalah. Makalah ini ingin melihat implikasi dari kurangnya kemauan politik dalam menggunakan metode yang tidak dapat diakses dan tidak dapat diakses untuk mengelola risiko dan bencana di daerah pedesaan dan perkotaan dari dua tempat yang dipilih di Malaysia dan Nigeria dengan mengorbankan metode manajemen yang murah, andal, tepat dan terpendek. teknologi penginderaan. Tujuan dari pekerjaan ini adalah untuk membandingkan kemauan politik pemerintah pada manajemen bencana dan menegaskan peran pemerintah dan pekerja sosial dalam membantu para korban. Desain penelitian dengan metode campuran diadopsi untuk pekerjaan. Data dikumpulkan melalui data sekunder dan wawancara. Jadwal untuk masyarakat yang terkena dampak. Ini diberikan kepada sekelompok orang di kedua negara, yang terdiri dari pria dan wanita di Kelantan dan Jigawa masing-masing. Peneliti melakukan wawancara dengan para peserta untuk melihat bagaimana mereka memandang respon pemerintah terhadap manajemen bencana. Fokus dari pengumpulan data adalah pada peran pemerintah mengenai mitigasi bencana di dua komunitas sejalan dengan kesejahteraan keluarga. Tujuan penelitian ini adalah untuk membandingkan respon pemerintah kedua negara dan untuk menunjukkan bagaimana keduanya dapat belajar dari kesalahan masing-masing dan umumnya belajar dari negara-negara maju.

Kata kunci: bencana, mitigasi, respon, inisiatif.

INTRODUCTION

The discipline of mitigation goals means for reducing the impacts of disaster whether it is natural or manmade events. Mitigation is defined as a sustained action to reduce or eliminate risk to people's life and property from hazards and the effects of disaster. The purpose of mitigation differs from the other emergency management disciplines because it looks at long-term solutions to reducing risk as opposed to preparedness for hazards in a given location or settlement, the immediate response to a hazard or the short-term recovery from a hazard event.

In addition, Mitigation is usually not considered as part of the emergency phase of a disaster as in response, or as part of emergency planning as in readiness to salvage both the life of the people, their property and the community as a whole (Purnomo et al., 2017).

The retrieval function of emergency management still epitomizes one of the best chances for mitigation, and until recently, this phase in a disaster provided the most substantial funding for mitigation activities due to natural events over-running many cities and state. In recent years, there has been a trend to greater spending on pre-disaster mitigation first in Project Impact and the establishment of the Pre-Disaster Mitigation Program in many nations including Nigeria and Malaysia.

There are difference sets of mitigation apart from the disciplines of emergency management itself. Implementing mitigation programs and activities requires the participation and support of a large range of players outside of the traditional emergency management circle such as government at all levels. Mitigation involves, among others, land use planners, construction and building officials, both public and private, business owners, insurance companies, community leaders and politicians at all stages.

Brief history of Kelantan Malaysia

Kelantan is derived from the Malay word 'Kilatan' which means 'lightning'. There was frequent lightning phenomenon often experienced by seafarers during their sail into mouth of the Kelantan River in early days according to history. This made the people to call the place Kelantan which means 'The Land of Lightning'. On the other hand, the richness of cultural heritage is related to the strong influence of the Siamese Empire, Funan kingdom by the Mekong River and the Sumatran Srivijaya Empire. Today, it is a predominantly Muslim state ruled by an Islamic PAS government, where 95 percent of the state population is made up of Malays followed by the Chinese, Indians, Then and other races.

Kelantan people owns fair and sharp feature. The races of the Kelantanese are impossible to be distinguished by the looks and speeches as the community sound and look similar in their behavior and the ways of life generally. Moreover, Kelantan has a visible assimilation between races. Chinese and Thai are known with Malay names like Awang for Ah Yuan, Hussein for Chong Seng and so on. This peculiarity is only acceptable and common in Kelantan. Non-Malays utter 'Insyallah' or make promises to go for appointment 'Lepassubuh' or 'Lepaszohor' are normal due to influence of Islamic culture practiced by the majority, Muslim Malays. Such situations have been accepted as a part of Kelantan culture which contribute to the beauty and diversity of the people through assimilation. One other thing is "Tunkuing", a Malay tradition of applying pressure with hot rock on stomach during confinements has been widely practiced by Kelantan Chinese. They are all part and parcel of Kelantanese way of life which make them unique from other state.

In the recent time flood affected east-coast of Malaysia, especially Kelantan in year 2014 which disrupted and caused big damages to the Kelantan Community physically and mentally. By definition, the destructive flood is normally due to heavy rainfall brought by the Northeast monsoon which mainly begins from November until March every year. The phenomenon has become a common natural hazard for Kelantan community as the event happen annually. However, the 2014 flood was the largest and uncontrollable recorded flood in the history of Kelantan. It was described as the "tsunami-like disaster" in which 202,000 victims were displaced ([Mustapha Muhammad, 2014](#)). The flood was called 'Bah Kuning' (yellow-coloured flood) because of it is high in mud. Prime Minister Datuk Seri NajibRazak also has described the severe floods faced by Kelantan as a major disaster which has brought much destruction to the people and state.

The people in the affected area have to be evacuated and move their private belonging to a safer area. They also have to bear with many kind of other physical losses, health problems, electric and phone disruption as well as the psychology effect. The unprecedented floods in Kelantan have caused an estimated RM 200 million in losses, said state flood disaster management director Datuk Seri Mustapa Mohamed. Besides, Hospital Universiti Sains Malaysia (HUSM) in KubangKerian is the only remaining hospital in flood-ravaged Kelantan that is fully functioning and able to treat critical medical cases, especially those dependent on life-support systems and other medical equipment ([Mustapha Muhammad, 2014](#)).

It is clear that the recent flood has given an enormous impact on the Kelantan and its people. Thus, this paper wants to evaluate the changes of the Kelantan community has experienced during the hard time surviving from the impact of flood disaster. This research is intentionally carried out to compare their culture changes before and after the big incident, either the flood has greatly affect the uniqueness and richness of the Kelantanese culture or likewise.

Brief history of Jigawa, Nigeria

The topography of the state is generally flat with the northern, central, and eastern parts covered with undulating sand dunes running in the Southwest to Northeast direction. The area around the state capital Dutse is very rocky with some low hills. The southern and western parts of the state around Birnin Kudu and Kazaure have the highest elevations with hills as high as 600 millimeters above sea level. The state is bisected by the Hadejia River which traverses the state from the west to the east through Hadejia-Nguru wetlands and empties into the Lake Chad.

No fewer than 6000 persons in three local government councils of Jigawa State have been displaced after two days of rainstorm. Taura local government of the state has been reported as the worst hit, where about 13 villages were completely flooded. Chairman of the council, Alhaji Suleiman Dauda Taura, told Vanguard that 1,351 households were affected while 2,057 women including widows and divorcees were affected.

Tools for Mitigation

Practitioners agree that the primary intent of mitigation is to ensure that little or no communities and individuals become victims of disasters whether natural or manmade. The goal of mitigation is to create economically secure society, socially stable, better built and more environmentally sound communities that are out of danger of any kind. There are numerous tools available to accomplish this task.

Hazard Identification and Mapping

The most essential part of any mitigation strategy or plan is an analysis of what the hazards are in a particular area. The resources for hazards identification are numerous. The Federal government in Nigeria has extensive programs that map virtually every hazard and these products are available to communities. Federal Emergency Management Agency (FEMA)'s National Flood Insurance Program (NFIP) provides detailed flood maps and studies and the U.S. Geological Survey (USGS) provides extensive earthquake and landslide studies and maps. Many State agencies have refined the products for hazards identification. For example, special soil stability studies and geological investigations which are required in some parts of California further refine this analysis.

Design and Construction Applications

The designing and construction process offers one of the most cost-effective means of addressing risk. This process is governed by building codes, architecture and design criteria, and soils and landscaping considerations. Most often code criteria that support risk reduction apply only to new construction, substantial renovation or renovation to change the type or use of the building. Enactment of building codes are the responsibility of the States and most State codes are derivatives of one of the three model codes which reflect geographical differences across the United States. Some States delegate code adoption responsibility to more local governmental authorities.

DISCUSSION

Vol. 8 No. 2
May 2017

283

Lessons identified during this work are listed or were identified below but not in any other of importance. Some are general lessons (Fire incidents, road accidents, etc.) have been included to reflect their importance in current humanitarian work. These lessons can be applied to other types of humanitarian response, whether it is the need for organization or discussion with the affected people, also apply to floods. What makes floods different is that their impact may be long term, either through sustained waterlogging or through the impact that it has on livelihoods of any given community.

Firstly, needs assessments should be situational knowledge and be flexible.

World Bank recently, review that ‘the most immediate needs following a flood are for a safe water supply, food, shelter, and medical care’ (IEG, 2010). Even though the basic pattern of needs is clear, a great deal of effort often goes into overly detailed and poorly coordinated needs assessment that yields little new information (ACAPS, 2012; Darcy et al., 2013:).

Needs assessment is often given a great deal of prominence in the early stages of a disaster response, even though ‘the results of formal assessments are often marginal to the decisions taken’ ([Darcy and Hofmann, 2003](#)). Said that ‘the most powerful influence on donor ability to fund in accordance with needs is not necessarily ultimately the availability of evidence.’

For any agency, they must be familiar with the capacities of a flood-affected community, and with the likely impacts of flooding, a needs assessment can be limited to identifying (1) the affected areas and the extent to which they are affected and (2) the scale of the response by other actors on the needs assessments may be constrained by access difficulties.

Secondly, floods are not short-term events.

Taking decision on whether to intervene or not, agencies of government should consider how long their engagement is likely to last, there must be a time frame. The impact of a flood can last for a considerable time. Even when a flood is of short duration of one to seven days (1-7 days), such as a storm surge or tsunami, its impact – the consequences of the loss of assets, shelter and livelihoods and the deaths of economically active household members endure for many years. This makes floods a significant disruption to the development narrative of any group.

Thirdly, disasters create opportunities for disaster risk reduction.

Every disasters draw attention not only to themselves but also to the hazards involved and the possibility of reducing risks from future repeat disasters ([CARE Brazil, 2010](#)). Government can use this to make heightened awareness of flooding to reduce the risk from future floods. Risk reduction work should be built into the response and care must be taken to ensure that actions taken during the response do not make the affected people more vulnerable to flooding or other hazards.

Fourthly, economically vulnerable people are most at risk of death during flooding.

According to [Pradhan et al., \(2007\)](#). Says the 1993 floods in Nepal, more poor people died compared to wealthy people to extent of six times more. In Bangladesh, Save the Children found that ‘poverty is intrinsically linked with the impact that floods have on any given segment of the population, and its influence can be seen as crosscutting all areas’ ([Save the Children, 2006: 6](#)). The government need to address vulnerability sustainably, it is necessary to deal not only with specific issues such as housing type but also with poverty and the risk of future disasters, there must be an interventions that address poverty as well as physical issues are more likely to be sustainable. This method is particularly appropriate in urban flooding contexts.

However, the risk of disease outbreak is real but lower than commonly thought.

In many cases flooding can have both short- and long-term health impacts on the affected general public of a given community. Evidence suggests that the danger of epidemic after flood may have been overstated. [Watson et al. \(2006\)](#) noted that natural disasters that do not result in displacement are rarely associated with an increased risk of epidemics. [WHO \(2006\)](#) warned that while ‘the overall risk of communicable disease outbreaks is lower than often perceived, the risk of transmission of certain endemic and epidemic-prone diseases can increase following natural disasters.’ Disease surveillance is critical after floods to detect changing disease patterns and potential outbreaks and floods may lead to increases in other threats to health (such as snakebite), and these may, to a degree, be context dependent. Agencies should be aware of previous morbidity patterns following floods.

However, the risk of disease outbreak is real but lower than commonly thought.

In many cases flooding can have both short- and long-term health impacts on the affected general public of a given community. Evidence suggests that the danger of epidemic after flood may have been overstated. [Watson et al. \(2006\)](#) noted that natural disasters that do not result in displacement are rarely associated with an increased risk of epidemics. [WHO \(2006\)](#) warned that while ‘the overall risk of communicable disease outbreaks is lower than often perceived, the risk of transmission of certain endemic and epidemic-prone diseases can increase following natural disasters.’ Disease surveillance is critical after floods to detect changing disease patterns and potential outbreaks and floods may lead to increases in other threats to health (such as snakebite), and these may, to a degree, be context dependent. Agencies should be aware of previous morbidity patterns following floods.

Moreover, engagement with local authorities is critical.

It is pertinent to engagement of the community and of local authorities, so as to to their immediate needs, it must be seen as a critical factor in humanitarian action, it is of particular relevance in flood relief operations. That is because of the long-term nature of many flood impacts and because many of the measures required for effective risk reduction require intervention by the local authorities. [Bang et al., \(2008\)](#) stated that in Sri Lanka, for example, a Red Cross community-based health project was very thorough in its approach to working with the local authority and was regarded by local officials as being more sustainable as a result, one challenge for local engagement is the turnover of aid personnel. Engagement with the local authorities may take many forms, including advocacy. Given the long-term nature of flood impacts, agencies need to engage closely with local authorities to be able to advocate for the most vulnerable and for sustainable policies.

Another way is engagement of the affected population.

There are most likely the natural tension between speed and sustainability in humanitarian response in any disaster. But particularly this relevant in flooding, due to the sustained nature of the flooding itself, when waterlogging lasts several months, or of the impact of the flooding. The lesson here is that responses should engage in effective consultation to ensure that their actions are as sustainable as possible.

As a Red Cross review of recovery operations noted, ‘taking adequate time at the beginning to consult with the affected population and other stakeholders can make things go faster later and can improve the quality of the outcomes’ ([IFRC, 2006](#)).

In continuation shelter reconstruction works best when it is owner controlled.

In the aftermath of floods, typically it destroy a large number of houses. [Munich \(2013\)](#). In his work that the 2012 Bangladesh floods destroyed over 250,000 houses, and there was not a record of rebuilding of any housing for a long period of time since after the floods. It is generally accepted that owner involvement in shelter reconstruction helps to promote positive outcomes. In a review of four case studies, [Davidson et al. \(2007\)](#) found that this was true when the users were involved at the planning and design stage and owner-driven construction is usually preferable when replacing housing lost to floods, but this works best when the house owners are given good support.

Relocation should be treated as a last resort in any flood case.

A review of tropical cyclone response in the Philippines from 2009 to 2011 found that ‘relocation of affected people outside of their areas of origins should be the last option’ ([Grünewald and Boyer, 2013](#)). The World Bank advised: ‘Avoid relocation if at all possible. Especially avoid relocation to distant sites’ ([Jha et al., 2010](#)). Such relocation can delay communities’ development. Relocation may move people away not only from their livelihoods but also from their kinship networks and social support systems, relocation after floods should be the last resort, as it normally moves people away for their livelihoods and not just about shelter, or even shelter and services, but all of the elements that make it possible for a community to live and function at a particular location.

In conclusion many types of disasters, such as floods, fire, drought, cyclones, volcanic eruptions, etc. will have certain antecedents. The satellites can detect it at the early stages of these events as irregularities in a time series. Government should be ready and take to warnings of imagery that is available at regular intervals and when disaster eventually happened, the government should swing into action and with all the available resources to save life and properties. Many disasters may affect large areas and no other tool than remote sensing would provide a matching three-dimensional coverage both government should give priority to this.

REFERENCES

- Bang, T., Nielsen, C. C., and Ravichandran, J. P. (2008) *Draft mid term review: Sri Lanka red cross society community based health projects in Nuwara Eliya and Matale*. Oslo: Norwegian Red Cross.
- Channels T. (2015, September 21). NEMA Donates Relief Materials to Jigawa Flood Victims. [Web log post] Retrieved from <http://www.easybib.com/guides/citation-guides/apa-format/how-to-cite-a-blog-apa/>
- CARE Brazil (2010) *CARE Brasil AAR, inundaciones y derrumbes Sao Goncalo, Río de Janeiro*. Rio de Janeiro: CARE Brazil.
- Daffi RE (2013). Flood Hazard Assessment for River Dep Catchment Using Remote Sensing and Geographic Information System Techniques. Ahmadu Bello University Zaria. PhD Dissertation. Unpublished.
- Darcy, J., and Hofmann, C.-A. (2003) *According to need? Needs assessment and decision-making in the humanitarian sector* (HPG Report). London: ODI.
- Davidson, C. H., Johnson, C., Lizarralde, G., Dikmen, N. and Sliwinski, A. (2007) 'Truths and myths about community participation in post-disaster housing projects', in *Habitat International* 31(1): 100–115.

-
- d, F., and Boyer, B. (2013) *Lessons learned on typhoons in the Philippines (Metro Manila, Cagayan de Oro and Iligan)*. La Fontaine des Marins: Groupe URD.
- IEG (2010) *responding to floods in West Africa: lessons from evaluation*. Washington, DC: IEG-World Bank.
- IFRC (2006) *Review of International Federation of Red Cross and Red Crescent Societies recovery operations: summary report*. Geneva: IFRC.
- Jha, A. K., Barenstein, J. D., Phelps, P. M., Pittet, D., and Sena, S. (2010) *safer homes, stronger communities: a handbook for reconstructing after natural disasters*. Washington, DC: World Bank.
- Mustapha Muhammad, 2014. Floods cost Kelantan RM200million in losses. Retrieved from <http://www.thestar.com.my/News/Nation/2015/01/02/Floods-cost-Kelantan-RM200mil-in-losses>
- Munich Re. (2013) *Topics geo: natural catastrophes 2012: analyses, assessments, positions*. Munich: Munich Re Group.
- Nandini B. (2015, December 14). Over 500 Kelantan Flood Victims Are Still Homeless One Year after The Floods [Web log post]. Retrieved from <http://says.com/my/news/kelantan-flood-victims-still-homeless-after-2014-flood>
- Pradhan, E. K., West, K. P., Katz, J., LeClerq, S. C., Khattry, S. K. and Shrestha, S. R. (2007) 'Risk of flood-related mortality in Nepal', in *Disasters* 31(1): 57–70.
- Purnomo, E. P., Nurmandi, A., Sulaksono, T., Hidayati, M., Ramdani, R., & Agustiyara. (2017). *EKOLOGI PEMERINTAHAN: Tata Kelola dan Kelembaman Birokrasi dalam Menangani Kebakaran Hutan, Pengelolaan Sawit serta Pemanfaatan Elit Lokal*. Yogyakarta: LP3M UMY.
- Save the Children. (2006) *Watermarks: child protection during floods in Bangladesh*. Dhaka: Save the Children.
- Sylvester U. (2014, August 13). NEMA distributes relief materials to flood victims in Jigawa [Web log post]. Retrieved from <http://dailypost.ng/2014/08/13/nema-distributes-relief-materials-flood-victims-jigawa/>

Watson, J., Gayer, M., and Connolly, M. A. (2006) 'Epidemic risk after disasters', in *Emerging Infectious Diseases* 12(9): 1468-1469.

WHO (2006) *Communicable diseases following natural disasters: risk assessment and priority interventions*. Geneva: WHO.