‘Prevention is better than cure’: Assessing Ghana’s preparedness (capacity) for disaster management

Author:
Martin Oteng-Ababio[1]

Affiliation:
[1]Department of Geography & Resource Development, University of Ghana, Ghana

Correspondence to:
Martin Oteng-Ababio

Email:
moababio@ug.edu.gh

Postal address:
University of Ghana, Legon, PO Box LG 59, Accra, Ghana

Dates:
Received: 30 July 2012
Accepted: 12 Oct.2012
Published: 12 Apr. 2013

Keywords:
Urbanising cities; risk accumulations; preparedness; disasters; NADMO

How to cite this article:
Oteng-Ababio, M., 2013, ‘“Prevention is better than cure”: Assessing Ghana’s preparedness (capacity) for disaster management’, *Jàmbá: Journal of Disaster Risk Studies* 5(2), Art. #75, 11 pages. http://dx.doi.org/10.4102/jamba.v5i2.75

Note:
1st Biennial Conference, Southern African Society for Disaster Reduction (SASDiR), 09 to 11 October 2012, Potchefstroom, South Africa

This article examines and contributes to the debate on Ghana’s capacity and preparedness to respond to disasters and build safer communities. Having witnessed a series of catastrophic events in recent times, many have questioned the capacity of the National Disaster Management Organisation, an institution mandated to manage disasters in Ghana and whose operations have historically been shaped by external pressures, particularly the populist tendencies of the Provisional National Defense Council government in the 1980s. Analysing the results from the fieldwork and placing them in the context of contemporary disaster management strategies, this article gives an overview of Ghana’s preparedness for emergencies in the face of increasing urbanisation. It finds that the organisation is fixated on a top-down approach with low cooperation, collaboration and coordination with stakeholders, leading to situations where devastation and destruction occur before action is taken. Today, the consensus is that practitioners wean themselves from managing disasters and take to managing risk. Such a redirection of attention calls for the adoption of an appropriate institutional framework: an approach that unites the putative nation beyond competing loyalties to ethnicity, tribe and political entity.

Introduction

The occurrences of and losses from small- to medium-scale disasters have not only become rampant in recent times, but have also become the bane of government’s attempt to build a safe and sustainable society for all (NADMO 2011; Oteng-Ababio 2011a, 2012; Oteng-Ababio & Sarpong 2012; WRC 2011). In the last two decades, there have been many high profile disasters, including the May 09, 2001 stadium disaster in which 126 football fans died, the June flood in 2006 which resulted in 23 deaths and the incidence of commercial fires which have become a daily occurrence (NADMO 2011; Oteng-Ababio & Osman 2012). Such catastrophes affect society and the economy significantly and have become a great concern for civil society as well as the government (UN-Habitat 2011).

Over the years, a paradigm shift worldwide has emerged in the theory and practice of disaster management. In time past, disasters were treated as one-time events with the focus on geo-physical and engineering knowledge, and without consideration of the social and developmental aspects. In recent times however, the attitude has shifted towards preparedness, with an emphasis on ‘contingency planning’ and relief supplies. Even in the most recent times, as disaster losses continue to increase, there is a further shift from a response approach to a more proactive attitude, with the understanding that disasters are more related to the vulnerability of the people, which has its genesis in the development patterns pursued.

With the new insights gained in the field, there has been the need to refocus on vulnerability reduction. Governments and their agencies responsible for managing disasters have been advocating for and ‘practising’ disaster risk reduction (DRR), which involves planning and acting in a manner designed to reduce vulnerability and work towards preventing hazards from taking the shape of a disaster. In Ghana, the vision of the National Disaster Management Organisation (NADMO), the institution responsible for disaster management, resonates with this rethinking. NADMO’s vision is *inter-alia*:

> … to reduce the risk of people, especially the poor and disadvantaged from the effects of natural, environmental and human induced hazards by coordinating the resources of Government institutions and Non-Governmental Agencies and the Private Sector and developing the capacity of individuals and communities in the Prevention, Response and Recovery from disasters. (NADMO 2010:6)

Despite these lofty ideas, the implementation of the principles seems quite challenging. Building resilient communities requires creating awareness at grass roots level about the fundamental concepts of vulnerability and building their capacity to cope with hazards, disasters and their interrelationships. This paper revisits the problem of institutional framework for disaster

management in Ghana (WRC 2011). It brings the organisation under the microscope by examining its capacity – staff strength and quality; office infrastructure and logistics; the availability of relief items; funding and appropriate institutional collaboration – resources that can help the organisation to fulfil its constitutional mandate. The paper recommends a novel organisational scheme which resonates with best practices in other countries as a better option for NADMO to manage disasters both effectively and efficiently. The paper presents a two-fold contribution:

- The author highlights some of the flaws in the modus operandi of NADMO that have made the public perceive it as a 'rice and blanket distribution organisation'. This is done in an attempt to trigger a debate that will help the organisation graduate from the situation where it plans for, instead of with, people.
- The author also proposes a novel approach that would allow NADMO to adopt and operate a 'bottom-up' approach that will help localise DRR programmes. Such an approach will also encourage effective collaboration, where each participant will become an integral part of the planning and implementation process.

Population growth and urbanisation: Building safe havens or potential hazards?

Disasters arise from hazards and, crucially, it is the impact on human life that distinguishes the former from the latter. It can thus be inferred that the impact of a disaster is a function of population growth and/or urbanisation, as the highest death tolls and economic losses occur in more concentrated geographic areas (ISDR 2009). Although population growth may herald disasters (Blaikie *et al*. 1994; Cannon, Twigg & Rowell 2003; ISDR 2009), Pelling (2012) rightly posits that we can avoid the negatives associated with rapid population growth when the economy meets three basic preconditions. Firstly, communities should be able to provide security for their citizens from external threats – anything from armed conflict to natural hazards. Secondly, they should also generate appropriate mechanisms for the sustainable extraction and concentrated use of social and ecological surplus – the basis for food and water security which under globalisation can involve chains of exchange that extend the reach of the cities, and their dependencies, over larger distances. Finally, the institution of good governance, maintained through a social contract that balances legitimacy and power, instead of equity and justice.

The ability of managers of the economy to achieve these targets produces 'secured liveable cities' where residents live in harmony within a socially just environment. Though many aspire to this ideal standard, it still remains a dream for many, especially those in the developing world. The reasons range from poor urban governance and political indecision to increasing pressure from competing demands, which incapacitate the authorities' ability to perform or adequately respond to new pressures. These pressures increase human vulnerability and hazard risk. The situation becomes chronic where a myriad of problems – corruption, nepotism, political 'cronyism' and a general weakness in governance in the face of rapid environmental change – tend to build potential hazards. This is not to discount the latent risks that accumulate in some supposed 'safe cities'. Indeed, Pelling (2012) cautions that, even amongst the contemporarily-perceived 'safe cities' that appear secure at first glance, diversity in land use, socio-economic capacity and local governance produce a mosaic of risk and security where local – and sometimes extensive – insecurity can be found amidst the apparent safety.

In Accra, the capital city of Ghana, there are rapidly growing numbers of families living in slums (about 70%) that are characterised by poor construction, cramped spaces, deplorable sanitary conditions, and a lack of basic neighbourhood amenities. They are often highly exposed to risk in all its forms from crime and violence to economic exploitation and environmental hazard, presenting a gloomy picture (Melara *et al*. 2012, 2013; Songsore 2008). More than 90% of the current urban poor live in developing countries, and 600 million of them live in life- and health-threatening homes and communities (UN-Habitat 2009). Of particular concern are those living in formal housing that has been constructed quickly, ignoring building standards or with inappropriate land-use zoning (Oteng-Ababio 2011a, 2012; UN-Habitat 2008).

Aside from the mainly human-generated vulnerabilities, there are other risks of such catastrophic dimensions that they create overwhelming hazards with accompanying disaster events that assume a magnitude that destroys not only the physical space – built infrastructure and settlement pattern in a city – but also the cultural meaning attributed to a place (Hewitt 1997; Razzu 2005). Although such events at times assume gargantuan proportions, they also sometimes provide some opportunities for the authorities to redevelop some downgraded and/or informal settlements (Vale & Campanella 2005). In Ghana, as in most developing countries, however, such not-too-glaring opportunities are normally missed in favour of other financial and political interests. On a few occasions where authorities proactively embark on redevelopment after a disaster, the resultant high-value land property tends to be far and above the financial reach of those originally affected, forcing the poorer residents, who normally lack the political and social capital, to relocate. The redevelopment of the Makola Market in Accra after the 1992 fire outbreak is a case in point (Oteng-Ababio & Sarpong 2012).

In the current circumstances, Pelling (2012) argues that:

> [T]he nature of hazard and risk – who the vulnerable are, the scale of vulnerability and scope for its amelioration – is at its most basic level, an outcome of competing values and visions and the distribution of political, economic and social power, which in turn determine expenditure on physical and social infrastructure and the application of technological innovation.

It can also be argued that the rapid population growth and urbanisation do not in themselves generate risk, nor does

the potential future increase threats. This paper submits that with proper planning and the creation of an appropriate institutional framework, such challenges are resolvable through appropriate local, metropolitan and national governance regimes. The onus lies squarely on the authorities to put in place appropriate and well-rehearsed institutional structures that will meet the exigencies posed by the realities of today's demographic dynamics. It is against this background that this paper explores the capacity of NADMO to manage disaster events, taking into consideration the realities of the 21st century – the obvious effects of climate change and the increasing urbanisation of poverty.

Research methodology

The fieldwork was conducted using an interview survey and informant in-depth interviews, carried out between May and November 2011 in three regions – Greater Accra (GAR), Brong Ahafo (BAR) and Upper West (UWR) (see Figure 1). A total of 36 coordinators – 3 regional, 12 district and 21 zonal – were interviewed. The survey specifically sought information about the adequacy of staff, infrastructure and logistics for managing disaster in their respective jurisdictions. There were also selected in-depth interviews with some officers at NADMO headquarters, the police, fire service, military, non-governmental organisations (NGOs) and the Assemblies. The selection of three out of the 10 regions in Ghana was to ensure ecological balance, with one each representing the coastal zone (GAR), the middle belt (BAR) and the north Zone (UWR) respectively. Apart from presenting different hazard risks (EPA 2010) each zone also represents a different socio-economic enclave, with GAR being the most urbanised and economically-empowered, whilst UWR is the least urbanised with the highest poverty rate.

While the cooperation and response of the regional and district coordinators were very encouraging, most zonal coordinators were quite apprehensive. This was apparently because many appear challenged academically. Additionally, many are politically active and therefore very reluctant to expose the 'ills of their organisation', which in their considered opinion could be misinterpreted to mean 'non-performance' on the part of government. Time, and in some cases, financial losses, were incurred, but highlighting the academic significance of the study succeeded in winning their cooperation. These key informant interviews took place at their offices and all were recorded with consent. The analysis of the qualitative data proceeded in line with established standards (Bernard 2000). The audiotapes were transcribed verbatim and reviewed for accuracy. Thematic codes were developed, iteratively reviewed, and applied to relevant segments of the study. Generally, the focus of the analysis was on NADMO's activities at the pre-disaster stage since an important aspect of disaster preparedness is prevention.

Disaster incidences in Ghana – a retrospective

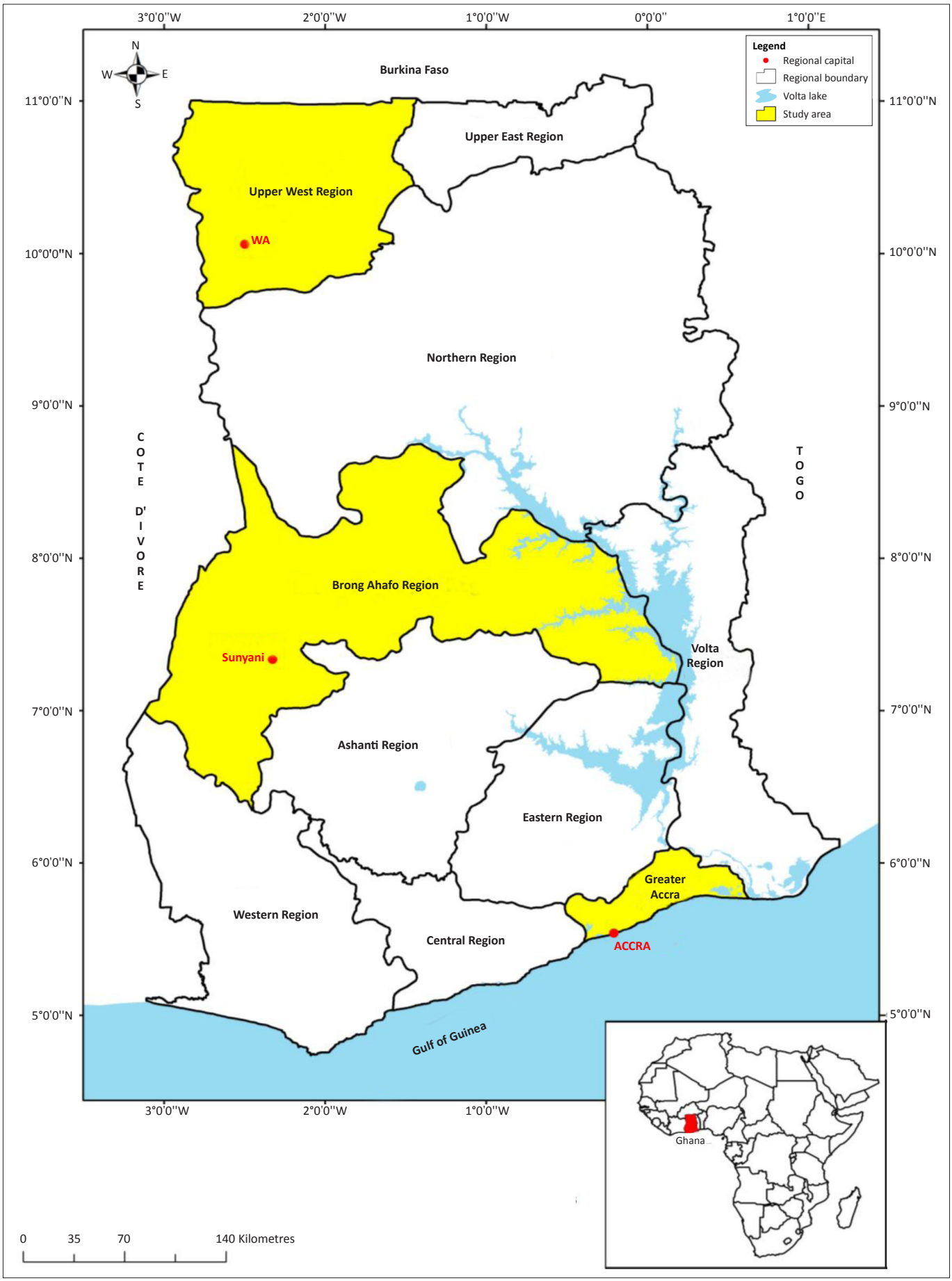
The impact of disasters emanating from increasing drought, flooding from heavy and incessant rains, a rise in the sea level and erosion have seriously disrupted the normal functioning of most communities, inflicting widespread human, property and environmental losses. Such disasters, which are due to different causal factors and can be either slow or sudden, have increased in recent times. Table 1 presents the impact of the June 2009 floods in the southern part of Ghana.

From the table, it can be seen that the total financial loss arising from the floods amounted to $5 813 954.70 with a death toll of 23. This came on the heels of a similar flood incident in northern Ghana in 2007 during which 317 127 people were affected and 61 deaths were recorded. Additionally, a total of 25 923 houses were either damaged, wash away or collapsed, while 634 drinking water and 39 irrigation facilities were also destroyed. The projected cereal deficit for the subsequent year was estimated at 955 050 metric tons and the government had to spend approximately $7.8 million to enable a sustainable redevelopment of the region (EPA 2010). In that incident, the direct emergency funding spent on the three Northern Regions was $25.1m (see Table 2).

The occurrence of these disaster incidents coincides with two important world events. Firstly, since 2008, the world has been subjected to an unending economic recession which has forced even the developed economies to adopt strategies to stop their economic haemorrhage, including a drastic reduction in aids and grants. Secondly, though there has been a remarkable decrease in poverty in Ghana from 39.5% in 1998 and 1999 to 18.2% in 2005 and 2006, there is still a direct relationship between a disaster event and its impact on poverty. On that score, the impact of disasters is likely to worsen the poverty levels as one moves from south to north where poverty is most extreme (see Table 3). The data tends to suggest a direct relationship between climatic conditions and poverty levels. Out of the 18% of the total population that live in extreme poverty, 54% live in northern Ghana.

What nonetheless appears to be an irony is the fact that geographically, conditions in Burkina Faso, which is further north than Ghana, are relatively harsher, yet southern Burkina Faso tends to be comparatively greener than northern Ghana. Indeed, vegetable farming (for example, tomatoes) is far more intense in Burkina Faso and has populated all markets in Ghana (EPA 2010). The question then is, if Burkina Faso were to be under the management of Ghana, what would the situation have been? What is different in terms of their disaster risk reduction, mitigation and adaptation process that is worth emulating? This study argues that access to open information on possible hazards and their poverty nexus will create a platform for an enriched discussion on vulnerability. This will enable civil society, authorities and key stakeholders to transform awareness inspired by the discussion into meaningful knowledge for the addressing of disaster risk.

The increasing incidence, severity and duration of disasters compelled the U.N. General Assembly to declare the period 1992–2001 as a decade for disaster reduction, culminating in the establishment of the International Decade for National



Source: Author's own construct, 2012

FIGURE 1: Map of Ghana, showing the research locations.

TABLE 1: Impact of June/July 2009 floods in southern Ghana.

Region	No. of Victims	Deaths	Estimated Cost of Destruction (GHc)	Estimated cost (US$)
Western	17 298	-	2 985 721	1 990 480.70
Central	5299	10	1 213 947	809 298
B. Ahafo	464	-	82 452	54 968
Volta	5150	-	20 000	13 333.3
Ashanti	6656	4	2 593 618	1 729 078.70
Ashanti	1946	1	47 980	31 986.70
G. Accra	15 616	8	1 777 214	1 184 809.30
Total	**51 965**	**23**	**8 720 932**	**5 813 954.70**

Source: National Disaster Management Organisation 2010

Disaster Reduction (IDNDR) initiative. The main objective of the initiative was to focus global initiatives and attention on an integrated system for co-coordinating both international and internal efforts to deal with disaster. This clarion call, coupled with a series of disaster events, inspired the government of Ghana and civil society to focus more on the activities of NADMO than before. This renewed focus is happening at a time when, in the minds of many Ghanaians, NADMO exists only to distribute relief items, apparently because of its inability to respond in an appropriate manner to disaster events.

The National Disaster Management Organisation: The 'umbrella' for disaster management in Ghana

The government's drive towards disaster management began with the establishment of the National Disaster Relief Committee (NDRC) in the early 1980s whose main focus was to assist disaster victims with relief items. The operations of the committee, whose membership was dominated by political activists of the then ruling Provisional National Defence Council (PNDC), metamorphosed into NADMO, which was established by an Act of Parliament, Act 517 of 1996, to manage disasters and similar emergencies and rehabilitate persons affected by such disasters. The main functions under the Act include:

- Prepare National, Regional and District Disaster Management Plans for preventing and mitigating the effects of disaster.
- Ensure the establishment of adequate facilities for technical training and institution of educational programmes to provide public awareness, warning systems, and general preparedness for its staff and the general public.
- Coordinate local and international support for disaster or emergency relief services and reconstruction.

These functions are intended to enable NADMO to manage disasters by coordinating the resources of government institutions and NGOs, and developing the capacity of communities to respond to disasters. To actualise this goal, early in 2000 the organisation set-up a Strategic Plan for 2004–2006 (NADMO 2010) whose specific objectives include:

- equip all NADMO staff countrywide with technical, managerial and administrative skills to perform their duties effectively and efficiently by 2005
- improve the coordination of the activities of government and international agencies by December 2006

TABLE 2: Direct emergency funding for disaster relief in Ghana.

Body/Organisation	Areas of interest	Amount (US$)
Government	General coordination of livelihoods, relief, restoration, etc.	5.40
Bilateral donors and UN Systems	Capacity building emergency response	7.40
World Bank and IFAD	Emergency response and livelihood restoration	11.00
NGOs/Faith-Based	Emergency relief	0.90
Private Sector	Emergency relief	0.10
Total		**25.10**

Source: National Disaster Management Organisation 2010
UN, United Nations; IFAD, International fund for agricultural development; NGO, Non-governmental organisation.

TABLE 3: Poverty incidence by Administrative Region.

Region	Poverty		Extreme poverty	
	1998/1999	2005/2006	1998/1999	2005/2006
Western	27.3	18.4	13.6	7.9
Central	48.4	19.9	31.5	9.7
Greater Accra	5	11.8	2.4	6.2
Volta	37.0	31.4	20.4	15.2
Eastern	43.7	15.1	30.4	6.6
Ashanti	27.7	20.3	16.4	11.2
Brong Ahafo	35.8	29.5	18.8	14.9
Northern	69.2	52.3	57.4	36.7
Upper East	88.0	70.4	79.6	60.1
Upper West	83.9	87.9	68.3	79.0
Total	**39.5**	**28.5**	**26.8**	**18.0**

Source: Ghana Living Standard Survey 2008

- stockpile items for relief, resettlement, rehabilitation and reconstruction by December each year.

After almost a decade of experimenting with the strategic plan, flooding remains a perennial problem, whilst the media landscape is replete with fire occurrences, both commercial and residential, as well as wildfires. Additionally, a large number of the citizenry continue to behave in ways (including building on waterways and marginal lands with impunity) that not only threaten their very lives but also pose a greater challenge to the society and the environment at large – a threat that inhibits our quest to build safer communities, hence enhancing the need to interrogate the capacity of NADMO to manage eventualities.

In a snapshot: Diagnostic analysis of The National Disaster Management Organisation's capacity

Evidence abounds nationwide that every day, there is an occurrence of one disaster or the other. The gas explosion near

Agona-Swedru in the Central Region, which led to 7 deaths on June 2012, the tragic road accidents on the Accra-Kumasi and Accra-Aflao roads (in the Ashanti and Volta regions respectively) which claimed a total of 57 lives in May 2012, and the cholera outbreak in Accra between November 2010 and March 2011 which affected 4000 people and recorded 64 deaths, are but a few recent developments[1]. Such geographical spatiality of disaster incidences make a compelling case, and indeed justify why NADMO has since its inception operated on national, regional and zonal platforms. What remains to be seen however, is how effectively such structures have been planned and implemented.

Staff adequacy and capacity

The findings of the study show that most of the regional and district offices are located within their respective administrations or assemblies. Nationwide, NADMO has 10 regional, 270 district and 9000 zonal offices. At the regional level, the BAR has 22 district offices whilst UWR has 8. To be able to reach out to the community, each district is subdivided into zones, with BAR and UWR having a total of 190 and 80 zones respectively. The results show that none of the zonal offices has been properly housed and the various coordinators operate from their 'bedrooms'. This has serious implications for data management, collection, processing, storage, et cetera, which constitute a fundamental prerequisite for timely forecasting, a *sine qua non* for possible prevention.

Staff strength

The ability to recruit, hire and retain the best 'callers' has a substantial effect on the ability to reach organised goals and objectives. Indeed, a quality staff structure has been one of the primary reasons why many organisations in the developed world experience great success (Grant 2009). On that score money spent on recruiting, training and improving staff of any corporate body is rarely wasted. NADMO's strategic plan (2004–2006) recognises the importance of adequate good quality staff, and states as one of its objectives:

> [T]o equip all NADMO staff countrywide with technical, managerial and administrative skills to perform their duties effectively and efficiently by 2005.

The results, however, show a contradictory arrangement. The current geographical distribution of staff, in terms of quality and gender, disproportionately favours the GAR. In all, Accra has a total of 5117 staff members, about 30% of whom are women. The UWR has a total of 192, 83% being males. The acute imbalance in the staff distribution can potentially compromise the ability of the disadvantaged regions to respond to emergencies in a timely manner. During the in-depth interviews, an official at the NADMO headquarters offered this assertion:

> [T]his office [headquarters] is really congested and now, it is very difficult if not impossible, to monitor the performance of some of the staff. Currently, over 60% of our members are in this region. It is about time we sent more men to the regions.

1.For more information please refer to the following websites. http://www.ghanadistricts.com/news/?read=31499; http://www.ghanaweb.com GhanaHomePage/NewsArchive/artikel.php?ID=238778 and http://www.nadmo.gov.gh/cholera.html

The effect of this discrepancy becomes obvious if viewed against the backdrop that disaster events have become increasingly rampant and devastating nationwide and the fact that poverty levels assume chronic dimensions as one moves northwards. Commenting on the performance of the NADMO office *vis-à-vis* its current strength, the coordinator admits:

> NADMO's present core business is to sensitise [educate] the general public on the dos and don'ts of disasters through mainly the mass media. However, given the fact that only 52% of the people can read and write, that becomes a herculean task. Meanwhile, our current staff strength does not allow us to reach the large population.

Staff qualifications

The results show that the educational qualification of the staff ranges from the most basic education (middle school leavers' certificate) to the highest (university degree). In terms of distribution, the study establishes a direct rural-urban dichotomy, where all the regional and district and/or municipal coordinators are university and diploma and/or higher national diploma (HND) certificate holders respectively, whilst ironically, the zonal coordinators who are supposed to be the vanguard (eyes and ears) of the organisation in terms of data collection, are middle school leavers. The situation worsens with the distribution of the experienced staff. From the results, years of experience range from one to 15, with all zonal staff being amongst the least experienced recruits.

Staff turnover

During the interactions with the district coordinators, they lamented the high rate at which some of the officers are changed, especially when there is a change in government. In an apparent justification of this concern, a senior officer at the headquarters intimated that not all staff turnovers may be bad, as at times some staff may experience burnout, with most veteran employees having difficulty staying focused and putting in consistent effort, thus contributing negatively to corporate atmosphere. He argues that normally, 'new staff come with fresh energy and reduce the cynical attitude in offices with just enough staff to get by'. To him, new staff members tend to engender new enthusiasm, but he added that management should always appreciate the accomplishments of those departing, whilst welcoming the excitement that new people tend to bring.

Office infrastructure

As already noted, NADMO has been provided with office space in the regional and district administrations. During the study, only the Sissala East District office in the UWR was noticed operating from the corridor of the assembly building. In terms of office space, the findings establish a relationship between the distance from Accra and the quality of office accommodation, with officers up-north having relatively 'large but poorly-furnished' offices as against those in Accra which have 'shared but better furnished' ones. On average, each research location outside Accra has about five staff

members who do not have work. This not only affects staff morale, but more importantly, impacts negatively on their professional competence and performance.

Desktop computers and laptops

Undoubtedly, disaster management remains in general a time-sensitive process and to mitigate the occurrence of future disaster events, it is important to develop the capacity to predict. This tendency makes data management crucial. This philosophy probably informed NADMO's decision to join the computer revolution, by 'equipping all its regional and district offices' (NADMO 2011). However, the field results contradict this position. The distribution of computers and their accessories, as with the other infrastructure, is skewed in favour of Accra. Even at the regional level, there is a glaring intraregional disparity, with most computers being concentrated in the regional offices.

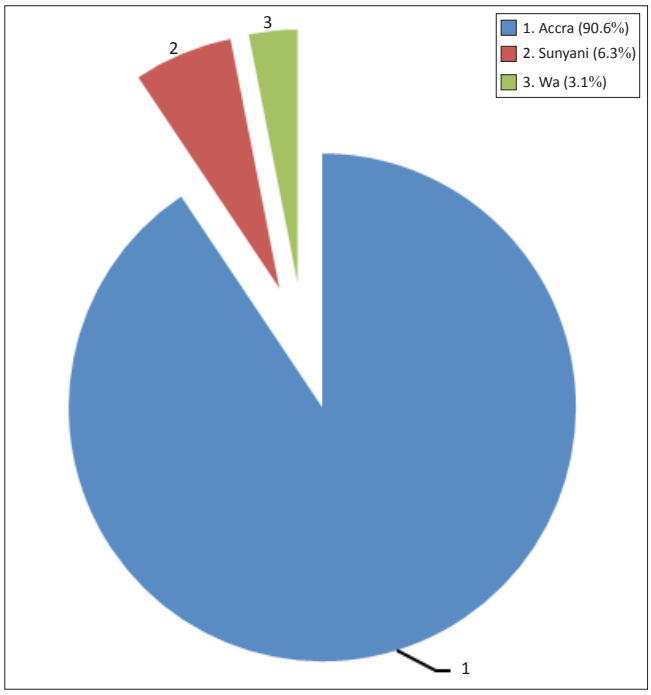
In the UWR, for example, the regional office has three desktop computers and three laptops; all other district offices have one desktop each, while the zonal offices have none. Ironically, during interactions with the officers at the zonal and district levels, they appear satisfied with their situation. This complacency could be attributed to the fact that computers tend to be seen as a 'status symbol' rather than a working tool, apparently because most staff are themselves computer illiterate. It did not, therefore, come as a surprise when the few officers who claimed to store data ostensibly claimed to do so 'manually'. The erratic supply of electricity without any alternative sources observed during the study make such a claim understandable.

Transport and communication facilities

The availability and reliability of transport and communication facilities are fundamental logistic prerequisites in managing disasters. Figure 2 presents the distribution of transport facilities within the study locations.

Most of the vehicles counted during the study – about 91% – remain in Accra. The BAR has only one vehicle (stationed in Sunyani) while UWR has two but only one (a Mitsubishi pick-up L200) is functioning. The other has been unserviceable since 2008. It was noted that these vehicles are used for the comfort of the regional coordinators rather than being used proactively in managing disasters. Some of the district offices had motorbikes (4 in BAR and 11 in UWR), which also remain the 'property' of the coordinators.

The distribution of communication gadgets follows a similar pattern, with Accra being favoured over-generously. Not only do most officers possess 'Gota phones' (a type of Motorola set used by all security agencies) which guarantee free communication, but some also allegedly benefit from private mobile phones with constant monthly rechargeable top-up units. At the regional level, such facilities are limited to the coordinators. In UWR, a Senior Officer revealed that a private mobile phone company, Expresso, had presented the regional secretariat with seven mobile phones. However, only two of the said phones ended up in two of the districts.



Source: Field work 2012
Accra is the capital and largest city of Ghana. Sunyani is a city in the West African republic of Ghana. WA is a town and is the capital of Wa Municipal District and the Upper West Region of Ghana.

FIGURE 2: Distribution of transport facilities.

This has a negative impact on effective communication for efficient risk management. During the interactions, one district coordinator remarked:

> I earn less than 900 Cedis a month; yet they expect me to use my meagre salary to buy phone top-ups to communicate with them whilst they monopolise all the free communications gadgets at the regional and national levels.

Relief items and warehouses

In disaster management, the mobilisation of relief items is time-sensitive, and in most cases, the impact of a disaster event depends primarily on the response rate of relief-related agencies. The timeliness with which the distribution of relief items is carried out is one of the important ingredients in any recovery process. Relief items speed up the recovery and empowerment of victims and reinstate them to normal life. The findings reveal that the national office remains at the apex of the relief supply chain, directing affairs from Accra. Many of the coordinators complain (justifiably) of 'chronic red-tape-ism' which in times of disaster, put them on a collision course with civil society. One regional coordinator remarked:

> You just need to listen to the private radio stations in times of a disaster – flooding; fire; pest infestation; et cetera – and you will appreciate the sort of humiliation we go through. Radio presenters and their 'serial callers' (social commentators who phone-in into radio programmes) subject us to series of questions and insinuations as if we are just thieves and don't know what we are about. We will always have to wait for the things [relief items] to arrive from Accra before any assistance can be offered.

Other interactions also revealed that even though the coordinators occasionally receive relief items from some

international organisations including the Red Cross, the Catholic Relief Services, USAID, et cetera, the untimely distribution of such items normally defeats the purposes for such items. A reaction from an official of one of these international agencies did not contradict this allegation, but nonetheless questions the capacity of NADMO to handle relief items at the regional and district levels. An official of the Ghana Red Cross submitted:

> Red Cross worldwide demands strict accountability in the discharge of its activities, but with current arrangements in most of the regional and district offices of NADMO the organisation may perform abysmally when subjected to any litmus test. Take for example, the case of Sissala West District, which uses a garage of the DCE as a warehouse.

The findings actually reveal that apart from Accra, where three warehousing facilities have been constructed, other NADMO offices rely on their respective regional and district administration warehouses for the safe-keeping of relief items. The situation is worse at the district levels, where in most cases a part of the district office is used as a warehouse.

Doing more with less – promoting institutional collaboration

The strategic plan of NADMO (2004–2006) endorses working with other stakeholders to help mitigate resource and other logistical constraints, heightened by increasing disaster events. All coordinators articulated this corporate philosophy, namely, cooperation with the Fire Service, the Police, the Army, the Ghana Health Service and NGOs such as the Red Cross, USAID, and the CRS. However, this well-trumpeted collaboration remains more of an ideal than an organic, well-grounded reality. It was evident that the 'effectiveness' of such collaboration is dependent on the individual skills of the person (coordinator) involved rather than a legitimate corporate responsibility. Many reasons account for this development, including subtle power play at the regional and district levels. According to the NADMO Act 517 of 1996, the coordinators are to preside over their management teams.

They are also to coordinate, organise and direct meetings, programmes and strategies for disaster management. This arrangement appears pregnant with institutional tensions and is an obstacle to effective disaster management. In most cases, when it comes to handling tribal conflict or fire disasters, lead agencies which are institutions specialised in handling specific disasters, for example, the Police and the Fire Service, remain sceptical of the current command structure. A Senior Police Officer remarked:

> [Y]ou can't trust a politician when you are on the battle field. Apart from politicians being stark illiterate and ignorant about the rudiments of warfare, most of these tribal conflicts are orchestrated by the same people, yet they will always want you to perceive their opponents as the aggressors. You need to always delink politics from such operations, which unfortunately these guys [coordinators] will not allow. How can you genuinely take instructions from them, only to go contrary to the dictates of your profession, which clearly spells out the chain of command during such operations and the sanctions for default?

Another security officer alleged that when there was massive flooding that overwhelmed some communities in the UWR in the last three days of July 2008 due to the opening of the BAGRE dam (a hydro-electric dam in Burkina Faso), his colleagues and NADMO officials joined forces. They shared information and coordinated their efforts, working tirelessly to survey the damage, identify needs and marshal resources. Both drew on their experience of previous crises, including similar flooding around Tamale in June 2004 and the displacement of tens of thousands of people in 2005 during a chieftaincy conflict in Bawku in the Upper East region. Yet, one of the officers was later court-marshalled for granting a radio interview on the challenges they encountered in their operations without recourse to 'headquarters' (which the government found distasteful). Such tendencies, they opine, impede effective collaboration with different institutions, with different rules of engagement in risk management at all levels.

Funding

Without doubt, any policy intervention thrives in a sustainable physical, socio-economic and political environment, which tends to be attainable through effective resource mobilisation. The study reveals government subvention as the main source of funding for NADMO's operations (see Table 4). In times of emergencies however, some international organisations and individuals typically donate items to the victims. It was unanimously agreed that NADMO's financial statement remains extremely inadequate.

Participants in the key informant interviews revealed that due to poor financial capacity, it is difficult for NADMO to attract competent personnel. Currently, a director of NADMO earns a consolidated salary (single spine) of about GH₵1200 ($617.60)[2] while a deputy director earns GH₵900 ($463.20). As a result, those eventually employed are not well-equipped, a situation which adversely affects the operations of the organisation. Poor financial capacity also affects the acquisition of logistics and this was confirmed by a senior officer in Accra who claims that currently NADMO has only 1% of the logistics it needs to manage disasters in the country, adding that the organisation is seeking support of $7.5m to procure logistics. So precarious is the financial position of NADMO that the Public Accounts Committee of the Parliament of Ghana rightly concluded in a report to the Speaker that for disasters to be well managed, the state must invest in NADMO (Parliament 2011). Part of the report reads:

> The committee wondered whether successive governments are aware of the enormity of the responsibility of NADMO in this age of widespread disasters worldwide. The committee strongly recommends for the adoption of the House that in view of the importance of the role of NADMO, the House directs the Cabinet and Government to make adequate resource allocation to NADMO to ensure that it has the capacity to be fully functional. Disaster preparedness is very crucial particularly in this era of climate change where the weather is unpredictable. There is the need for urgent action to assist NADMO to address its problems

2.The exchange rate was GH₵1.943 per US$ on Friday 17 August, 2012, from http://fx-rate.net/GHS/USD/

TABLE 4: The National Disaster Management Organisation's budgetary allocation (Ghana cedis).

Budget allocation	2003	2004	2005	2006
Personal emoluments	2 167 546	1 983 600	2 442 642	2 743 135
Administrative/service/ invest	1 165 624	658 856	1 472 289	2 416 473
HIPC releases (relief items)	-	-	604 416	7000
UNHCR/NADMO (refugee upkeep)	-	-	-	198 572
Total	**3 333 171**	**4 047 356**	**4 519 348**	**6 058 182**

Source: National Disaster Management Organisation 2011
HIPC, heavily indebted poor countries; UNHCR/NADMO, United Nations High Commissioner for Refugees/ National Disaster Management Organisation.

> to enable it play a meaningful role in saving lives and property during disasters. (Parliament of Ghana, July 11 2011)

The author endorses this call and observes that despite irrefutable evidence that mitigation activities can reduce the negative impact of disasters, which might only occur sometime in the future or not at all, governments are reluctant to spend money to limit or forestall such effects. I further argue strongly that contemporary disaster management entails putting in place appropriate mechanisms to manage risk rather than managing disaster. This necessarily demands building the capacities of the agencies involved in disaster management, particularly by providing and operationalising an appropriate institutional framework.

Conclusion and recommendations

The study set out to interrogate the preparedness of NADMO to protect Ghanaians against disaster events. The findings demonstrate that the organisation has severally failed in this objective. Amongst the many reasons are staff, transport and financial constraints as well as low collaboration with major stakeholders. NADMO is handicapped in its ability to develop capacity for the implementation of adaptation and mitigation strategies. It currently responds to disaster events, as in the case of the perennial flooding that continues to wreak havoc.

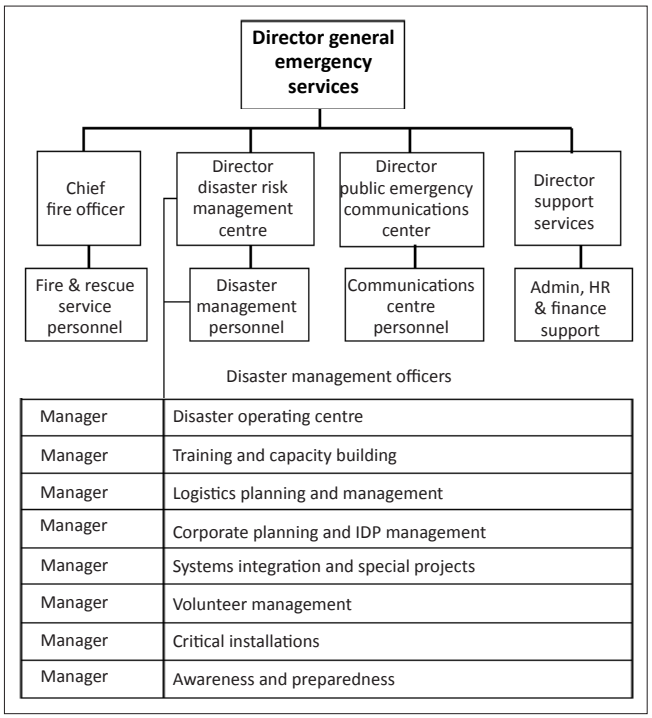
The organisation appears to be preoccupied with a top-down approach, where devastation and destruction occur before action is taken. Meanwhile, risk reduction entails the systematic development and application of policies, strategies and practices in order to minimise vulnerabilities and risks throughout society, or to avoid (prevent) and limit (mitigate and prepare) the adverse impacts of hazards. Additionally, disaster reduction activities should be based on participatory approaches involving key stakeholders, especially local communities, as much as practicable since solutions become more sustainable if they come from the people themselves through a bottom-up approach (Wisner *et al*. 2004; Oteng-Ababio 2011b, 2012).

Clearly, the current policies and decisions of NADMO have created unintended consequences including poor governance, selfishness, apathy and lack of entitlement. They also often neglect communities' perceptions in building capacity to deal with extreme events, and this tends to exacerbate potential hazards. As alluded to in the literature (Hewitt 1983; Lewis 1999; Oliver-Smith 1986; Wisner *et al*. 2004), such tendencies create disaster conditions more than natural environmental events. This 'process' is neither a quantitative snapshot in space and time, nor is it only about the present; it relates to what, why and how we are, where we are and how we might change the present to improve the future.

The clearest manifestation of the failure of NADMO policies is the attempt to amend Act 517 of 1996. The draft bill, which is yet to receive parliamentary approval, in part seeks legal empowerment to enforce certain regulations, for example, the demolition of structures built on marginal lands. The study does not see the challenge to the efficient and effective performance of NADMO as legal. Rather, it sees the problem as having more to do with the current organisational structure which appears counter-productive and needs re-organisation. In the process, the government faces a number of difficult questions. The first has to do with the appropriate roles for 'politicians' and public servants (who should be apolitical) in any disaster management plan. A closely-related conundrum concerns the undeniable resource constraints with many competing needs. The question then is: should government use its limited resources to prevent the build-up of disaster risks, or rather merely to clean up after calamities have occurred?

A reality presents itself and inevitably, a policy must be made, and in a forward-looking manner. This reality is best captured by Gilbert White's observation: 'Floods are acts of nature; but flood losses are largely acts of man' (Bowen & Thomas 2009). Without doubt, the best disaster response and recovery policy involves advance planning, which ensures that disaster impacts fewer people and requires fewer resources. The situation where the 'Coordinators' head their respective management teams is counter-productive and breeds some subtle animosity between themselves, the assemblies and some public officials, such as the Police and the Fire Service. In order to prevent or mitigate disaster risk, or soften disaster impact where prevention is impossible, the study recommends the creation of an independent Emergency Service Structure with a Director General appointed through the Public Service competitive recruitment process, a structure akin to that operating in South Africa (see Figure 3).

The process will help appoint 'non-politically tainted' leaders where competence, dedication and experience (merit) may not be compromised. Additionally, it will avoid arousing political dissension, which results in apathy and selfishness, and will allow stakeholders to feel a part of the planning for and response to disaster. Within the proposed management regime, the functional focus will comprise 10 regional coordinators (directors). Within each regional unit, there shall be eight coordinators (managers) that will provide



Source: Author's own construct, 2012
IDP, Integrated Development Plan; HR, Human Resources.

FIGURE 3: Proposed Emergency Services Structure.

the region with the full complement of an administrative structure to operate independently within its geographical space. Such a framework will give proper meaning to the bottom-up approach and, by extension, help build the capacity of district and zonal officers. This will not only enhance the performance of officers, but also help in data management and the development of early warning systems. Funding such a project will be challenging, but should be seen as a necessity in view of the huge sums the government spends in times of calamity. Complementing locally-generated funds with donor support should be an appropriate option for government. Such reform should also be in tandem with local aspirations, as the people know their environment better. They probably would also be the first to know when things go wrong and what the possible solution is. They can also, by their actions, influence the environment, hence making risk management '*everybody's business*'. This gives credence to Kofi Annan's assertion that:

> [m]ore effective prevention strategies would save not only tens of billions of dollars, but save tens of thousands of lives. Funds currently spent on intervention and relief could be directed to enhancing equitable and sustainable development instead, which would further reduce the risk for war and disaster. Building a culture of prevention is not easy. While the cost of prevention has to be paid in the present, its benefits lie in a distant future. Moreover, the benefits are not tangible; they are the disaster that did not happen. (Kofi Annan 1999)

The country has come a long way in its understanding and experiencing of the impact of disasters. It has, in principle, also appreciated the fact that the best possible mitigation approach is the proper design and building of an appropriate institutional framework for disaster management, a point in support of which several case studies have been cited. This study has therefore presented another opportunity for the Ministry of the Interior to undertake further studies as to how to cement the current recommendations for possible implementation.

Acknowledgements

Competing interests

The author declares that he has no financial or personal relationship(s) which may have inappropriately influenced him in writing this article.

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