

Governance of disaster risk reduction in Cameroon: The need to empower local government

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The impact of natural hazards and/or disasters in Cameroon continues to hit local communities hardest, but local government lacks the ability to manage disaster risks adequately. This is partly due to the fact that the necessity to mainstream disaster risk reduction into local governance and development practices is not yet an underlying principle of Cameroon's disaster management framework. Using empirical and secondary data, this paper analyses the governance of disaster risks in Cameroon with particular focus on the challenges local government faces in implementing disaster risk reduction strategies. The hypothesis is that the governance of disaster risks is too centralised at the national level, with huge implications for the effective governance of disaster risks at the local level. Although Cameroon has reinvigorated efforts to address growing disaster risks in a proactive way, it is argued that the practical actions are more reactive than proactive in nature. The overall aim is to explore the challenges and opportunities that local government has in the governance of disaster risks. Based on the findings from this research, policy recommendations are suggested on ways to mainstream disaster risk reduction strategies into local governance, and advance understanding and practice in the local governance of disaster risks in the country.

Introduction

Natural hazards continue to pose a major threat to the entire world with prospects of even greater impacts to life and property in the future (Aini & Fakhrul-Razi 2010; Hayles 2010). 'Natural' disasters have caused more than 780 000 fatalities and destroyed property and infrastructure worth a minimum of \$960 billion over the last decade (Guha-Sapir *et al.* 2010; UNISDR 2010a). It has been projected that should current trends continue, 100 000 lives will be lost each year, while the costs of 'natural' disasters will be in excess of \$300 billion per year by 2050 (IFRC 2009). 'Natural' disasters cause the greatest impact on poor communities in developing countries (97% fatalities) that have the least resources to cope (Amin, Cox & Goldstein 2008; World Bank 2001). This poses a major obstacle to the African continent's efforts to achieve sustainable development because of the region's insufficient capacity to predict, monitor, deal with and mitigate disasters (WCDR 2005). Just as all communities are vulnerable to hazards in varying degrees, they also have intrinsic capacities to reduce their vulnerability to natural hazards and to minimise disaster risks (Ginige, Amaratunga & Haigh 2009; Palliyaguru & Amaratunga 2008; Pathirage *et al.* 2008). The continuous increase in the number, scale and intensity of 'natural' disasters over the last decade has profound implications for the governance of disaster risks. As a result, most countries have established national disaster response agencies to coordinate, manage and properly resource Disaster Risk Reduction (DRR) efforts.

DRR includes the systematic development and application of policies, strategies and practices to prevent or prepare for hazards, or to mitigate their adverse effects (UNISDR 2010b). The Department for International Development (DFID) (2005) has divided DRR measures into five categories: policy and planning measures; physical coping and/or adaptive measures; physical preventative measures; and community capacity building measures. Four ways of reducing vulnerability, which can be used for DRR, have also been identified by McEntire, Crocker and Peters (2010). These are: engineering methods – focusing on ways to increase resistance through construction practices in the built environment; physical science methods – stressing exposure to hazards and risk reduction in unsafe environments; structural methods – concentrating on socio-economic factors and demographic characteristics with a focus on cultural and traditional perceptions of vulnerability; and organisational dimensions, which focus on the effectiveness of preparedness, response, recovery, and management operations. DRR takes place under the auspices of governance.

Governance is the exercise of political, economic and administrative authority in the management of a country's affairs at all levels. Governance of disaster risks is conceptualised in this paper as governance that influences the way in which national and subnational actors (including

governments, parliamentarians, public servants, the media, the private sector, and civil society organisations) are willing and able to coordinate their actions to manage and reduce disaster-related risk (UNDP 2010).

The lack of strong national and local institutions for dealing with disasters risks is a major contributing factor to increased vulnerability to 'natural' disasters in developing countries (Anderson 1995; Smith 2001). That is why the United Nations International Strategy for Disaster Reduction (UNISDR) (2004) recognised the need to decentralise and institutionalise risk mitigation at the community and local levels. A well-organised, coordinated and decentralised partnership between national and local disaster management institutions, with decentralised access to communication, information, decision-making and the control of resources facilitates the local governance of disaster risks (Bollin 2003; UNISDR 2004). Local government's role in DRR is essential in building resilient communities and nations – in part because its members should be the first to respond when a disaster occurs (UNISDR 2010b; UNISDR, ITC & UNDP 2010).

Though local government is expected to play a leading role in DRR activities, it faces significant challenges. These include inadequate human, material and financial resources (Manyena 2006; Pearce 2003), including the lack of experience to manage the expectations of disaster affected people. Empowering local government through decentralisation of DRR has been shown to be beneficial to the local population, including marginalised groups, and to provide more autonomy to local authorities to ensure the effective implementation of DRR measures (Ahrens & Rudolph 2006; Pulido 2008; UNISDR 2010b). It has been recommended that DRR should be incorporated into development policies, strategies and investments at local government levels in order to strengthen the ability of communities to better respond and cope with disaster events (DFID 2005; Secretary-General 2006).

This paper makes the case for increased local-level risk reduction action via the empowerment of local government. A key objective is to inform policy on DRR and stimulate greater interest and commitment in the local governance of disaster risks. The first part of this paper discusses Cameroon's vulnerability to natural hazard. The second part presents the structure and governance of disaster risks in Cameroon. The third part discusses the role of local government in risk mitigation, followed by an analysis of challenges faced by local government entities in implementing DRR activities in Cameroon. The paper concludes with a set of policy recommendations specifying essential parameters necessary for the empowerment of local government in DRR activities.

Research methodology

Inspiration for this paper has come from a broader research carried out by the author on the management of the Lake Nyos disaster (LND) and Lake Monoum disaster (LMD) in Cameroon – particularly the challenges faced by local government in the disaster areas. The research methodology

used empirical and secondary data obtained from fieldwork conducted in 2007 on three study populations: victims of the LMD and LND that occurred in 1984 and 1986 respectively, and disaster managers responsible for the management of both disasters and the governance of disaster risks in the country. Questionnaire surveys, semi-structured interviews, direct and participant observations were used for primary data collection. Secondary data was generated through a review of DRR literature and policy documents from the government, research institutions, academic publications and internet sources. The hypothesis is that the local government is not sufficiently empowered to carry out DRR functions because the governance of disaster risks in the country is too centralised at the national level. The objectives are to analyse the governance of disaster risks in Cameroon, with a view to highlighting the limitations faced by local government and opportunities for improvements.

Empirical data for survivors of the LND was generated by administering 100 questionnaire surveys and 25 semi-structured interviews to the displaced disaster victims resident at the Ukpwa resettlement camp¹ located in the Wum local government area. Hundred-and-thirty survey questionnaires and 25 interviews were also administered to the non-displaced victims of the LMD resident in Njindoum village. Twenty semi-structured interviews were conducted with key stakeholders involved in the governance and/or management of the LND and LMD at the local and national levels.

Key themes for interviews and questionnaires for the disaster victims centred on the impact and recovery from the LND and LMD, socio-economic variables that affect their livelihoods and wellbeing, and perceptions on the governance of the LND and LMD. Interview themes for disaster managers addressed contingency plans; access and availability of resources for the management of disaster risks and the disaster survivors; interlevel and intersectoral cooperation for DRR; challenges faced in the management of the LND and LMD; and recommendations for improvement in the governance of disaster risks in the country.

Cameroon's vulnerability to natural hazards

Geological factors make Cameroon prone to natural hazards, whilst a combination of social, economic, demographic, health and environmental factors make Cameroonians highly vulnerable to disaster risks. These natural hazards and/or disasters have considerable impact on physical, social, natural, financial and human capital in the country. Cameroon's geology is part of the complex history of plate tectonics that caused the rifting of the South Atlantic continental plates. This created extensive strike-slip faults and shear zones that extend into Cameroon (Binks & Fairhead 1992). These fault and shear zones are responsible for the active

1. The URC is one of seven resettlement camps for the displaced Lake Nyos disaster survivors. The other resettlement camps are Buabua, Kimbi, Esu, Ipalim, Kumfutu and Yemnge camps.

volcanic and seismic activity in the country (Dumort 1968; Hedberg 1968; Nni 1984), which occurs dominantly on the Cameroon Volcanic Line (CVL²) (see Figure 1). Other hazards that occur frequently in the country are landslides, flash floods and toxic gas emissions from crater lakes on the CVL.

Mount Cameroon, the most active volcano on the CVL, has erupted 13 times in the past 200 years (Zogning 1988). Recent eruptions in 1909, 1922, 1954, 1959, 1982, 1999 and 2000 affected the agrarian economy and livelihoods of local communities around the flanks of the mountain. The 1999 eruption produced lava, which destroyed the forest and palm plantations around the mountain. The lava eventually truncated the Limbe-Edenau highway and caused the evacuation of villagers in Bakingili village (Deruelle *et al.* 2000; Suh *et al.* 2003).

Earth tremors, farming on risky areas coupled with the steep gradients of the CVL and heavy rains, storms and hurricanes often exacerbate landslides and flash floods. Landslides and land subsidence have occurred in Bafoussam, Limbe, Nkongsamba, Njinikom, Dschang, Bangangte, Kumbo, Belo, Akum, Bamenda station escarpment and the Ndop-Sabga road since the 1970s (Fogwe 1997, 1999; Lambi 1989, 2004; Ndenecho 2003; Ndenecho & Eze 2004). Tornadoes, floods, hurricanes and thunderstorms regularly affect the coastal towns of Limbe, Kribi, Tiko and Douala (Ayonghe 1998, 2001; Ndenecho & Fonsah 2001). These hazards have caused fatalities, damage to farmlands, houses, roads and communication infrastructure with huge implications for rural livelihoods and local economies (Ayonghe *et al.* 1999, 2004; IFRC 2001). Toxic gas emissions from crater lakes on the CVL caused the 1986 Lake Nyos disaster (1746 killed and 4430 displaced from the disaster zone), and the 1984 Lake Monoum disaster that caused 37 fatalities (Freeth & Kay 1987; Kling *et al.* 1987; Shanklin 1988). To contain these hazards effectively, a robust disaster management system that has institutionalised risk reduction at the local government level is necessary.

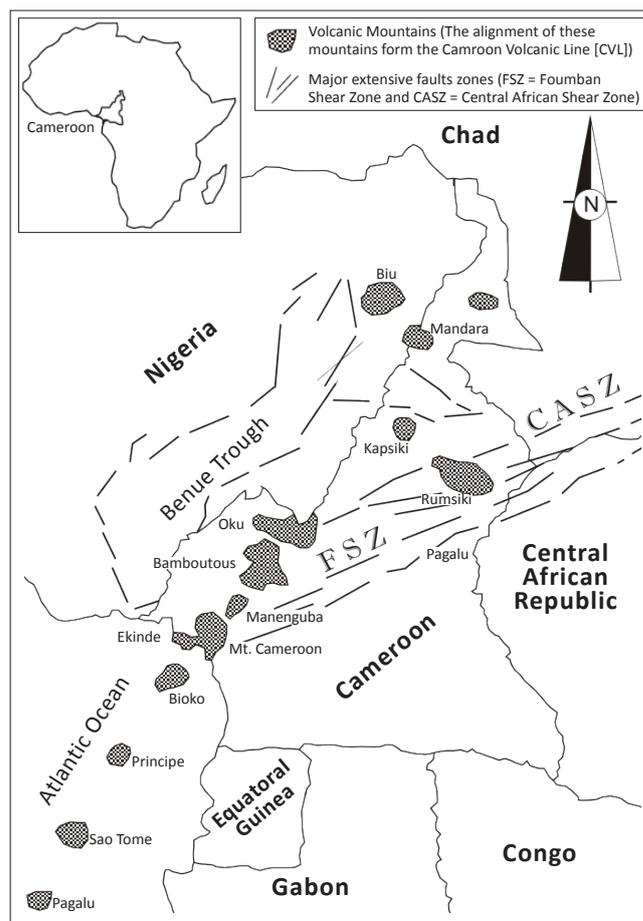
Governance of disaster risks in Cameroon

Cameroon's legislative and administrative framework for the governance of disaster risks has been integrated into the government administrative machinery in the country. Disaster management and risk reduction is carried out by several agencies (Government Ministries, National Organs³, and Local Government) in collaboration with scientists, humanitarian organisations and international partners⁴.

2.The Cameroon Volcanic Line (CVL) is an alignment of Y-shaped elongated oceanic and continental volcanoes trending averagely N30°E and stretching for over 1500 km through the country.

3.The national organs are: National Disaster Prevention and Management Program, National Institute of Geological and Mining Research, National Institute of Cartography, National Civil Defence Council, National Risk Observatory, Emergency Medical Services, and National Fires Service.

4.International Partners are International Development Organisations such as UNDP, UNICEF, WHO, UNHCR; Bilateral cooperation with countries such as France, Japan and USA and Members of the International Cooperation of Civil Protection.



Source: Map produced by author

FIGURE 1: The Cameroon Volcanic Line and fault zones that are associated with natural hazards in Cameroon.

The general government strategy for DRR focuses on three main aspects: the establishment of contingency plans during the pre-disaster phase; initiating an emergency intervention plan during the crisis phase; rehabilitation of disaster affected populations, hazard risk assessment and communication of risky zones during the post-disaster phase (MTAD/DCP 2005).

The governance of disaster risks in Cameroon is done under the auspices of the Directorate of Civil Protection (DCP⁵) in the Ministry of Territorial Administration and Decentralisation (MTAD⁶) (MTAD/DCP 2009; MTAD/DCP & UNDP 2006). The main responsibilities of the DCP are, amongst others: general organisation of civil protection for the whole country; coordination of all the institutional structures concerned with civil protection⁷; assessment of requests for compensation and financial assistance made by disaster victims; control of financial and material aid meant for disaster victims; coordination of disaster relief and rescue operations; and

5.Decree No. 2005/104 of 13 April 2005 gave the Directorate of Civil Protection (DCP) the responsibility to organise and coordinate civil protection activities throughout the country for natural and human-induced disasters (MTAD/DCP 2009).

6.Decree No. 2004/320 of 08 December 2004 placed civil protection as the second most important function of the Ministry of Territorial Administration and Decentralisation.

7.Civil Protection is a common umbrella term that covers the risks posed by natural hazards and/or disasters, and technological and biological hazards, as well as those caused by human-induced hazards in Cameroon.

TABLE1: Local government distribution by regions and population distribution by council types in Cameroon.

Regions	Urban Population	Number of Divisions	Number of Urban Councils	Rural Population	Number of Rural Councils	Average Population of Rural Council	Total Number of Councils
Adamawa	100 000	5	1	488 272	16	30 517	17
Centre	1 629 493	10	10 ^a	1 282 378	59	21 735	69
East	55 036	4	1	556 281	31	17 945	32
Far North	123 296	6	1 ^b	2 080 859	44	47 292	45
Littoral	2 075 269	4	8 ^c	554 212	24	23 092	32
North	221 980	4	1 ^b	819 726	18	45 540	19
North-West	261 572	7	2	1 212 277	30	40 409	32
West	252 194	8	4 ^d	1 272 784	37	34 400	41
South	88 261	4	3 ^d	381 671	22	17 349	25
South-West	267 396	6	2 ^b	779 639	25	31 185	27
Total	5 074 497	58	33	9 488 099	306	30 946	339

Source: Adapted from CLGF 2011

(a) Six are subdivisional urban councils making up Yaounde City Council. (b) Special status councils. (c) Five are subdivisional urban councils making up Douala City Council. (d) One of each is a special duty council.

training and capacity building of all personnel involved in civil protection (MTAD/DCP 2005, 2007, 2009).

The governance of disaster risks in Cameroon follows a process where power is disseminated from the central administration, through the 10 regions of the country⁸, down to Divisions and Councils. The administrative heads of the Regions, Divisions and City Councils—Governors, Divisional Officers and Government Delegates respectively, are appointed by the government. The mayors of Municipal Councils are elected. Legislation gives the President the right to make policies relating to DRR at the highest level. In theory, this is closely followed by the National Council for Civil Protection. The heads of the different administrative units are responsible for implementing DRR activities in their regions. Government legislation outlines some key areas that the head of the administrative units should consider before, during and after a disaster—knowledge of civil protection; the setting up of crisis committees, managing information, the setting up of command posts and setting up relief and rescue plans. In a crisis situation, the emergency response plan can be launched at the various administrative levels (national, regional, local) by the competent authorities, based on the scale, nature, intensity and magnitude of the natural hazard. The potential actions that could be taken in any order are: to organise and convene a crisis commission to manage the disaster; to initiate plans for emergency response, relief, evacuation, rescue and recovery; to brief higher authorities about the seriousness of the incident and steps taken to contain the situation; to initiate emergency relief and humanitarian activities; and to warn vulnerable populations and inform the general public. The post-disaster management phase focuses on the crisis committee's evaluation meeting report on the management of the disaster (MTAD/DCP 2008). As will be seen later, although this decentralised framework exists, the delegation of authority to assess and reduce risks, devolution of responsibilities, authority and competencies, including resources, to lower administrative levels is limited in practice.

8. Cameroon is divided into 10 administrative regions – Central Region, Littoral Region, North Region, Extreme North Region, Adamaoua Region, North West Region, South West Region, East Region, West Region and South Region.

The role of local government in disaster risk reduction

The phrase 'Local Government' is conceptualised differently in different countries in terms of the duties, structure, composition, size, level and functional responsibilities between central and subnational governments. These responsibilities can be along fiscal, administrative and political lines (Col 2007) and the size and levels of the community may be divided into different categories such as regions, provinces, cities, municipality, townships (The Incheon Declaration 2009; Whalen 1970). The United Nations Office for Public Administration considers local government to be a political subdivision of a nation or state that is constituted by law, whose governing body is elected and has substantial control of local affairs (Ola 1984).

Councils constitute local government in Cameroon (see Table 1), and have disaster management functions conferred upon them by the legislative⁹ and administrative instruments governing local government in Cameroon. Law No 2004/018 of July 22, 2004 stipulates that councils are responsible for such tasks as promoting local development, improving the living conditions of their inhabitants, organising and coordinating relief operations for needy persons, organising fire-fighting activities, and securing the socio-economic development of their populations. However, as will be shown later in this paper, councils generally lack the required resources and are not sufficiently empowered to carry out these functions.

Local governments typically perform the following key roles in implementing DRR initiatives: they play a central role in coordinating and sustaining a multilevel, multistakeholder platform to promote DRR; they engage local communities and citizens with DRR activities in an effective manner and link their concerns with government priorities; they strengthen their own institutional capacities and implement practical DRR actions by themselves; and they devise and implement innovative tools and techniques for DRR (UNISDR, ITC & UNDP 2010; Yorke 2007).

9. Law No. 074/23 of 05 December 1974 and its amendments govern the functioning of local governments in Cameroon.

Findings

Local government in Cameroon faces significant challenges in its DRR endeavours. When a disaster happens, local government entities are immediately confronted with the task of providing rescue and relief to victims, but often do not have the required power and adequate resources to implement their plans effectively. The main challenges that confront local government are discussed below.

Finances

Financial constraints and the inability to generate sufficient funds is a major handicap. The revenue for running councils comes mainly from the government through donations, legacies¹⁰, charges and taxes (licences, fines, fees, loans, etc.). According to the MTAD/DCP (2005), the annual budget of the DCP is only a fraction (500 million CFA francs) of the amount required to manage civil protection in the country (46.7 billion CFA francs). This limits the ability to provide adequate funding to councils for DRR. According to the Common Wealth Local Government Forum, '... the first and most crucial problem is chronic budgetary shortfall ... that is difficult for ... local authorities' (CLGF 2011:39). This statement was confirmed by empirical evidence. Local disaster managers in the Wum municipal council said the council cannot support the LND survivors at the Ukpwa resettlement camp fully, due to budgetary constraints. They blamed the central government for not providing sufficient financial support to help disaster survivors. A respondent said:

... In many instances, financial and material resources disbursed to assist victims are not always sufficient and it is very difficult to communicate such concerns to higher authorities.

The interviewees said that the death of several thousands of cattle during the LND and the poor roads in the region have slowed down economic activities in the municipality. Most government officials blamed the inadequate funding of local government to the economic crisis Cameroon experienced in the 1980s and the devaluation of the CFA francs in the early 1990s. Financial constraints are certainly central to the poor governance of disaster risks by local government.

Political

Partisan politics and the quest for political support seem to impact on the local governance of disaster risks. Ninety-six per cent of respondents at the Ukpwa camp revealed that government officials canvassing for votes during the 2007 municipal and council elections coerced the disaster survivors to vote for the Cameroon People's Democratic Movement (CPDM)¹¹ in exchange for favours in relation to solving their social problems. Seventy-eight per cent of the interviewees at the Ukpwa camp and 92% of the respondents in Njindoum said that although the government did not keep promises

10. According to article 43 of Law No. 074/23 of 05 December 1974, the Fund for Mutual Assistance (FEICOM) is responsible for funding councils.

11. The CPDM, which is the present ruling party in Cameroon under President Paul Biya, has been in power since 1982.

to compensate the LND and LMD survivors, victims of the Nsam fire disaster that happened in the Centre Region (where the president comes from) 12 years after the LND had been compensated. Generally, the LND survivors and officials of the Wum municipal council (that was controlled by the Social Democratic Front [SDF]¹² party at the time of the fieldwork) believe that the government is reluctant to assist them because they are Anglophones and sympathisers of the opposition SDF party. Similar concerns were expressed by the LND survivors in other resettlement camps (Bang 2009).

The government created many councils in the 1990s, primarily to win the support of local communities. Crucial demographic requirements, including infrastructural and financial implications for sustaining the councils, were not considered. According to Abangma (2009), these councils are inefficient administrative units that exist and function for convenience rather than real need, because they lack a strong economic base.

Lack of staff skilled in disaster management

Lack of skilled personnel to manage disaster affairs is also a contributing factor. Most personnel responsible for the governance of disaster risk at all levels are government technocrats, trained as civil administrators, or appointed into the government due to their political affiliations with the ruling party. There is no statutory instrument regulating the status and career structure of local government staff, which often leads to a serious lack of local competence on the administrative side, even in large urban councils (CLGF 2011). A government technocrat at the national level said:

One problem is that many people given the responsibility to manage these programs are not professionals and simply do what they are told by their superiors. Since these people cannot take initiative, their job cannot be done properly ...

The above statement was justified by a local manager when asked about relocation plans for the LND survivors. He said:

I think the higher authorities are better aware of any plans for the survivors. We simply get orders from above and execute them. Whatever we at the local level are instructed to do and given the means to do, we simply do them ...

Most local governments do not employ staff skilled and knowledgeable in DRR (UNDP 2010). The municipal employee has been described as aged, uneducated, lethargic, and having little mobility (Gaudez 1975). This obviously has a serious toll on the initiation and implementation of DRR activities.

Centralised administration and bureaucratic management

As mentioned earlier, Cameroon has a highly centralised and bureaucratic administrative style of disaster risk governance. The presence of the state below the divisional level is minimal, with real power at local levels in the hands of divisional officers and government delegates who, in many ways, also

12. The SDF is the biggest and most popular opposition party in Cameroon. Its founder and chairman come from the North West Region, which is also the stronghold of the party.

act as representatives of the national government. In practice, their powers often supersede that of mayors and they are the tutelage authorities responsible for facilitating and implementing decisions taken by the councils (Ouston 1972). The passing down of administrative power to technocrats, and not mayors, takes away the functional autonomy of local government. With such dysfunctional centralisation of power, councils cannot shoulder risk reduction responsibilities in an effective manner. This complicated administrative process has led to confusion and the duplication of functions, constraining the management of relief and rescue operations when the Lake Nyos disaster occurred (Bang 2012). This is due to the fact that there is no organisational framework that provides the administrative structure for a natural hazard mitigation policy. This is why key governance decisions are made by presidential or ministerial decrees that often cause agencies to offer duplicate services. A disaster manager at the local level quipped:

This country cannot easily resolve problems caused by natural hazards because the DM [disaster management] process is not clear ... the process of obtaining financial and material assistance is not clear. Many people and committees are involved and it is difficult to know who to contact ...

Generally, council officials often complain in their words of 'a difficult relationship with the government', 'lack of trust and confidence between local and national officials' and 'administrative bottlenecks' when trying to obtain resources for disaster survivors.

From 1997, the government began to appoint government delegates to rich urban councils in order to have a grip on their finances. Studies carried out in the Kumba municipality recently identified that limited functional and financial autonomy granted to the city council, excessive control of council finances by the central government, and poor financial management are responsible for the council's financial hardship (Abangma 2009). Decentralisation, devolution, transparency, and a well-structured local disaster management capacity enhance disaster mitigation because they facilitate access to communities that are vulnerable to disaster risks (ADPC 2004; Bendimerad 2003).

Corruption

Embezzlement and corruption adversely affect the local governance of disaster risks. The embezzlement of local government funds and resources destined for disaster-affected populations and risk reduction activities are a common phenomenon in the country. Ninety-one percent of respondents affected by the LND and LMD, and 85% of disaster managers said corruption and embezzlement area major handicap for the effective governance of DRR. A respondent in Njindoum said:

All those who lost relatives during the disaster were promised financial compensation ... but nothing have [sic] been given to us ... government officials duped us and collected money from us that they were going to follow-up the situation in Yaoundé ...

A group interview in the palace of the chief of Njindoum confirmed this assertion. The participants revealed that

after the Lake Monoum tragedy, some government officials collected money from the victims of the LMD, which they claimed would be used to follow-up their financial compensation in Yaoundé. The financial compensation was never received.

More than 80% of the aid destined to survivors of the LND was embezzled by government officials (Mbuh 2005:194):

They steal even blankets and milk destined for displaced people! The case of the bus diverted to Colombe Football Club of Sangmelima is very glaring ... Many reports of how fraud and theft took place were never investigated.

A report in the *Cameroon Post* (on Tuesday, August 30, 2005) about the 19th anniversary of the LND also states that:

... management of resources ... was characterized by corruption and sheer dishonesty ... frozen chicken destined for Nyos was being hawked in the streets of Yaounde ...

The embezzlement of resources intended for the LND victims is partly responsible for creating social risks within the displaced populations (Bang & Few 2012). During the crisis phase of the LND, decision-making on the procurement of emergency needs and multi-layered governance and administrative bottlenecks fuelled the embezzlement of funds (Bang 2012).

Involvement of local communities in decision-making

Local communities are not fully included in post-disaster resettlement planning and risk reduction initiatives that affect them. A majority of respondents at the Ukpwa camp said they were not consulted on the design of the camp. They also intimated that the government undermined their faith and religion by not constructing a mosque in the camp (more than 95% of the inhabitants follow the Islam faith). According to the respondents, the only mosque in the camp was constructed using local labour and building materials, with financial assistance from non-governmental organisations (NGOs), namely Plan International and Helvetas. According to Koenig (2001), mosques, churches, chapels and shrines serve as social resources that are tangible evidence of group identity and the necessity to reconstruct communities.

Generally, disaster survivors have no influence on the decision-making process that affects their well-being. To make their voices heard, social groups protesting the poor treatment of LND survivors (for example the Mr Bamenda Organisation and the Buabua- Kimbi Lake Nyos Cultural and Development Association) have emerged from within the disaster-affected community (Bang 2009). It has been recognised that a community-driven approach to post-disaster recovery, which builds on social capital, results in greater client satisfaction, more rapid disbursement, and local empowerment (Leitmann 2007). According to the United Nations Development Programme (UNDP) (2004), DRR should be underpinned by a more pro-active approach to informing, motivating and involving people within their own local communities.

Maintaining critical infrastructure

Whilst local governments have big stakes in various types of infrastructure within their municipalities, investments to maintain these infrastructures, especially roads, are not often available, which has implications for relief and rescue operations. The first news of the LND reached the administrative headquarters of Menchum Division 24 hours late because bearers of the tragic news had to trek for 45 km from Nyos to Wum due to the very poor state of the road. There was no telephone, radio or TV network in the region to communicate the incident immediately. According to the *Cameroon Tribune* (Wednesday, August 27, 1986):

Struggling survivors got to Wum, headquarters of the affected Menchum Division only on Friday August 22nd 1986 at about noon to report the tragedy.

Krajick (2003:2) described the road to Nyos as 'a washed-out dirt track winding through forested hills and passable only in a four-wheel drive vehicle'. Even the President could not visit the disaster zone because of the road's poor condition. According to the *Cameroon Tribune* (August 27, 1986):

The head of state regretted that he could not personally visit the scene of the calamity during his abrupt visit because of the inaccessibility of the area and promised that steps would be taken to improve the road network.

The rescue and evacuation operations from the disaster zone were severely hampered by the very bad state of the road that links Nyos to Wum and the delay in evacuating the sick survivors placed many lives at risk (Bang 2012).

Information from respondents and personal observation during the fieldwork indicates that the poor road conditions still exist more than 25 years after the LND. Many respondents at the Ukpwa camp and local disaster managers said persistent complaints and suggestions that the road be upgraded have fallen on deaf ears. This was confirmed by an article in the *Cameroon Tribune* (August 30, 2007), stating that:

... Amongst the lots of problems presented to Governor Koumpa Issa included the fact that they have been crying in the rain for ... road infrastructure. Aboubaka Suleiman, a representative of the survivors said accessibility to their camps is a nightmare ...

During the fieldwork for this research, the roads in the region were still in very poor condition. The researcher could only travel to Nyos and the Ukpwa resettlement camp by motorbike. Local disaster managers also suggested that the delay in upgrading the ring road in the region is having a toll on the development of the region, especially its agrarian economy. A local disaster manager was vocal on this issue:

... Without foreign assistance, nothing would be done ... The government has failed to construct a good road to Nyos since the disaster happened although we have heard several times that the road will be constructed. I am sure they are waiting for a foreign government to construct it for them

The LND victims also complained that the bad state of the road creates much difficulty with regard to the transportation of agricultural products for sale in Wum. They emphasised

that their livelihood, which relies on subsistence agriculture, also depends on good farm-to-market roads. The dilapidated infrastructure in local government areas necessitates major capital expenditure (CLGF 2011:39).

Poverty and vulnerable livelihoods

The vulnerability of individuals, families, or communities to disasters has been attributed to their social, cultural, political and economic environment (Bankoff & Hilhorst 2004; Wisner *et al.* 2004). Poverty causes livelihood vulnerability, which is an underlying driver of disaster risk in many rural areas in developing countries (Anderson 1995; Smith 2001). Poverty in Cameroon is high, and continues to grow in rural areas (IFAD 2011; U.S. State Department 2008). About 86.5% of the country's poor live in rural areas (Amin & Dubois 2001). Cameroon's most recent household survey, undertaken in 2007, revealed that poverty affected an estimated 39.9% of the population (IFAD 2011). In 2008, the country's human poverty index and incidence of monetary poverty were 31.5% and 39.9% respectively (ADB 2009).

The LND respondents said their poverty resulted from the death of their cattle when the LND occurred. About 8300 cattle died (Shanklin 1988). Generally, respondents complain that cattle rearing and farming was their main livelihood activity in Nyos and that they lack other skills to adopt other livelihood options. The resettled disaster survivors have been rendered destitute and poorer by a number of socio-economic factors that include limited access to land, limited job opportunities, homelessness, poor housing conditions, increased morbidity and mortality, food insecurity, loss of access to common property and social disarticulation (Bang & Few 2012). The increased poverty further limits the ability of local governments to mitigate social risks resulting from resettlement after disasters.

Research in other parts of Cameroon has shown that poverty and constrained access to productive assets make communities search for agrarian livelihoods on lands prone to disaster risks such as flash floods and landslides. To exacerbate the problem, the houses built in these fragile areas are often structurally weak. This makes them highly vulnerable to earthquakes, tropical cyclones and floods, further increasing the propensity of the poor to suffer loss. Flash floods have caused fatalities and damage to houses in illegal settlements in Limbe and the Bamboutous plateau (Ayonghe *et al.* 2004; IFRC 2001; Zogning, Ngouanet & Tiafack 2007). Their very low resilience means that even small disaster impacts are translated into poverty outcomes (UNISDR 2011).

The inability to enable access to safe land, institute and enforce strict building codes and prevent people from building in hazard prone areas configures disaster risk in many urban and rural areas. Efforts to reduce disaster risks must be built into legislation and systematically integrated into policies, plans and programmes for sustainable development and poverty reduction (WCDR 2005).

Discussion

Developing the capacity of local government and empowering it to take a leading role in DRR is a way of addressing the aforementioned challenges. Although it is important for the central government to take sole responsibility for DRR in the country, the relevance of delegating the responsibility of risk reduction to local government cannot be undermined. This is because local government entities are closest to the communities and are expected to take the first steps in the solving of problems during crisis situations.

Although a holistic approach is relevant when addressing the limitations of DRR endeavours at the local level in Cameroon, the challenges of local government vary from one region to another based on political preferences. Local government in CPDM-controlled councils have better assistance from the central government than those in opposition-controlled councils. The management of past disasters in the country has shown that the central government is more reactive than pro-active in its management of disaster risks. Even in post-disaster situations, delay in dispatching resources to regional and local governments limits their response capabilities. Disaster management in the country often focuses on the short-term, visible recovery activities without contingency plans being put in place for strategic longer-term social and other risks that may emanate from the disaster. This is certainly an impediment for the achievement of disaster resilience at the local levels (ADPC 2007).

In a hazard prone country like Cameroon, building on the momentum created by efforts to combat disasters is an effective way to engage communities and local governments with DRR endeavours. The government should learn from past disasters, and use them as an opportunity to gain real commitment to risk-sensitive development. This is because not only do disasters have a negative impact on development, but development failures can create risk by increasing societal susceptibility to natural hazards and reducing coping strategies (UNDP 2004; White *et al.* 2004).

The abilities, capabilities and potentials of institutions at all levels, supplemented by efficient and effective information- and knowledge-sharing mechanisms amongst the key stakeholders, are vital for DRR (WMO 2010). Effective DRR requires that risk reduction at the local levels be mainstreamed into the general government policy process. This calls for flexibility in the decision-making process that involves the citizens and all key stakeholders at the local level, and the empowerment of communities, which in turn pushes political will, transparency and good governance (ADPC 2004; WMO 2010). The need for improved political commitment and improved governance of DRR institutions in Africa has been identified (UNISDR 2004). This requires decentralisation of disaster management coupled with the empowerment of local governments. This will enhance their DRR abilities and capabilities and give them authority and autonomy to manage risks effectively since the livelihood of most people under the control of local governments is influenced by poverty.

Poverty reduces the resilience, coping capacity and recovery ability of people living in regions vulnerable to hazards, just as disasters can exacerbate poverty. As analysed earlier in this paper, vulnerability to disaster risks in Cameroon is partly constructed and amplified by poor governance of disaster risks. It is therefore of the utmost importance to empower local governments, ensuring their effective participation and contribution to disaster resilience, mitigation and management. Recommendations on how this can be done are discussed in the next section.

Conclusion and recommendations

The analysis in this paper has shown that local government has a critical role to play in DRR activities, although constrained by several factors. To tackle head-on the challenges faced by local government entities and to empower them with authority and all the necessary resources that can facilitate DRR, the following recommendations have been made:

- The central government should mobilise and facilitate the acquisition of resources that will strengthen local government's capacity to deliver and sustain scaled-up programs in DRR.
- The central government should mainstream disaster risks within the development plans in the country, especially the provision of critical infrastructure such as roads and the telecommunication network in high-risk zones.
- The central government should institute a policy on DRR that would decentralise responsibilities and resources to local governments, and give them autonomy to manage disasters with minimal interference.
- The government should produce a detailed hazard-risk map of the country and highlight the disaster risks in each local government area.
- DRR should be institutionalised and included in the development policies and plans of local governments.
- Local government should put in place robust contingency plans to manage natural hazards that occur frequently in its region.
- The central government should prioritise contemporary management of risks based on potential risk, frequency and intensity of hazards rather than on political control of the local government area.
- Local governments should take all available measures to plan and regulate development in hazard prone areas, to enforce orders restricting settlements in risky zones, and to enable access to safe housing and well-situated land.
- Skilled personnel in DRR should be recruited to work alongside government technocrats at the local levels.
- Financial and material resources for DRR activities should be kept under the control of committees and not individuals, in order to minimise corruption and embezzlement.
- Local governments should ensure that disaster victims, survivors and beneficiaries, and vulnerable populations are incorporated into the disaster management planning and decision-making process that concerns them.
- Local governments should establish and assign clear roles and responsibilities in DRR that may include advocacy,

dissemination of information, and risk education, as well as building greater consciousness of locally-prevalent hazards.

- Local governments should create and extend partnerships with other DRR agencies, and expand avenues for resource mobilisation in order to strengthen their DRR strategies.
- The government should implement development programs that can reduce poverty at the local level.

More research efforts are needed to inform and reform government policy on how local governments can be empowered to implement DRR strategies successfully.

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Competing interests

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