

Integrated disasters and risk management policy, legislation and regulations

Challenges and opportunities in Kenya



Wafula Luasi Nabutola, MSc
Consultant – In - Chief
MYRITA CONSULTANTS
Chair FIG Commission 8:
(FIG) International

Federation of Surveyors
(Spatial Planning and Economic Development)
The Republic of Kenya

In the last two decades, Kenya has faced a rising degree of vulnerability to the risk of disaster. Risk is the probability of a hazard turning into a disaster, with households or communities being affected in such a manner that their lives and livelihoods are seriously disrupted beyond their capacity to cope or withstand using their own resources, with the result that affected populations suffer serious widespread human, material, economic or environmental losses.

As challenges go, Kenya has had a fair share of disasters. Some have been natural like floods, famine, drought, hurricanes while others have been man-made, like the terrorist bombings that have become commonplace in our society, of late. Such as the Sinai tragedy where 100 people died; the Sachanguan Petrol Tanker tragedy in which over 300 died, more recently eight girls in Primary Boarding School died in a dormitory; that same week more than 50 perished when a neighbouring community in Tana River Delta invaded another, etc.

The bombings can be traced to the decision last year to invade Somalia with the aim of flushing out the Al Shabbab gangsters. This was as a result of frequent incursions into our country by the Al Shabbab militia,

and their abducting and subsequent murdering of tourists and Kenyans alike. It was a direct threat to the tourism industry, which is critical to Kenya's economy. Hotel bookings got cancelled and foreign governments issued advisory notes to their citizens not to venture into Kenya. Some of the other man-made happenings also could have been prevented.

To my mind I see a dichotomy of two clear distinctions of disasters; the one in which we can anticipate, plan for and prevent; or if they happen, we are so prepared that they cause minimum disruption. The other class of disasters occur and we have to deal with them, in a reactive manner. Nevertheless we can prepare ourselves.

Kenya's disaster profile is dominated by droughts, fire, floods, terrorism, technological accidents, diseases and epidemics that disrupt people's livelihoods, destroy infrastructure, divert planned use of resources, interrupt economic activities and retard development. Despite the many important disaster management initiatives undertaken in Kenya over the past two decades, an adequate level of preparedness required to address its significant risk profile has not been achieved. Initiatives have been undertaken in an inconsistent, unharmonious, reactive and uncoordinated manner due to lack of a unified policy framework. In view of the experiences gained and lessons learnt during the management of various hazards and disasters, the Government of Kenya formulated a draft National Disaster Management Policy to emphasize proactive and preventive strategies in

In the absence of a clear policy framework, disaster management lacks a definite planning structure or approach. This is reflected both in the lack of legislation and in the setting of priorities in government expenditure allocations

addressing disaster situations. But this has not yet been finalized and yet it still needs revision to reflect the requirements of the Constitution of Kenya 2010 (CoK 2010).

Policies and legislations on risk prevention and, in the unfortunate event of occurring, risk reduction and facilitation of relief activities can help to reduce the human sufferings and impact of disasters and health emergencies. They can also be critical to empowering communities and the society as a whole, to do the work they need to do to address the most urgent situations of vulnerability. Moreover, they can go further to guard against discrimination in the design and implementation of disaster management programmes.

Current disaster situation in Kenya

Although Kenya's economy could be classified as highly vulnerable to natural and man-made disaster risks, we do not have a comprehensive disaster management framework and strategies guided by appropriate policy and legislative provisions. We have been able to manage from one emergency to another without an effective disaster management system, albeit with a very high level of support from the international community, at great expense and diversion of resources from much needed social and economic development work. The frameworks and legislations to facilitate the coordination of disaster management activities from the central level to local level have not been institutionalized. Citing the new constitutional dispensation which is implementing devolved governance, the systems should seek to delegate authority to the least centralized level, such as the village, that has the capacity to respond to emergency or urgent needs.

Disaster trends in Kenya

Of late, there has been an alarming increase in such types of disasters such as fires, collapsing buildings, terrorist bombings and motor accidents. Search and

rescue efforts in the urban areas also require specialized training. These are distinct in many ways and the intensity of damage is usually very high, warranting effective Disaster Management plans. Urban mapping of infrastructure of spatial resolution can be taken up for development of a Decision Support System (DSS) for management of urban risks as a unique area.

Climate change instigated disasters

More than 70% of natural disasters in Kenya are related to extreme climate events that are key causal factors for some emergencies that lead to disasters. Climate change is impacting water balance, agriculture, forestry, coastal ecology, bio-diversity and human and animal health. There are definite indications that climate change would increase the frequency and intensity of natural disasters like floods and droughts in the coming years. In order to meet these challenges in a sustained and effective manner, synergies in our approach and strategies for climate change adaptation and disaster risk reduction ought to be encouraged and promoted.

Past and recent major disasters and their costs

Quantifying exact damages is difficult - some disasters impact far beyond the occurrence and restoration phase. However, the estimates show some of the results of recent disasters (Table 1).

The effects of disasters

In Kenya, disasters have resulted in the following:

- Migration of people from rural areas to urban centres to enhance their survival chances. This movement is



Kenya disaster Map

primarily as a result of agricultural employment losses, due to drought.

- Uncontrolled urbanization on vacant land that is unsuitable for safe housing. In addition, the informal settlements have been subjected to the rapid spread of fires and flash floods. (Mukuru Kwa Njenga and Mathare slums in Nairobi are typical examples.)
- Loss of life that occurred. Examples of these are Mukuru (300 lives lost in 2011 due to fire), Ramogi (17 lives lost in 2012) and Bundalangi floods (13 lives lost in 2010).

The examples quoted could have been avoided through better planning and control measures, early warning systems and community preparedness.

Environmental degradation and increased poverty - Several areas near rivers are occupied by informal settlements without any or with only minimal protection of the water body.

Disaster management policy in Kenya

In 1993, the Government created a Relief and Rehabilitation unit and an Emergency Drought Recovery Project to address the consequences of frequent droughts in the country. The Drought Recovery Project was phased out in 1996, and in its place the Arid Lands Resource Management Project I was put in place to carry out drought monitoring and management activities in 10 arid districts in Northern Kenya. The Project (ALRMP II) was

expanded in 2003 to cover 22 Arid and Semi-Arid districts. Another 6 districts have since been added to this project.

The Government of Kenya also established the National Disaster Operations Centre in early 1998 at the height of El-Nino induced floods. The Centre was tasked with monitoring the floods

and coordinating logistics to assist the communities in the flood areas. The Centre has been retained to monitor disaster incidents on a 24-hour basis and to mobilize responses to the areas affected.

The thrust of the Policy is to institutionalize disaster management and mainstream disaster risk reduction in the

country's development initiatives. This focus is in keeping with International and Regional initiatives as contained in the Yokohama Strategy and Plan of Action for a Safer World (1994), the Johannesburg Plan of Implementation issued at the World Summit on Sustainable Development (2002) and the targets set to achieve the Millennium Development

NO	Type of Disaster	Vulnerable Population		Past Incidences	Effects
	Population affected		Socio-Economic impacts		
1.	Drought	North Eastern Province, Eastern Province, Part of Rift valley Province, Coast Province	1971- Widespread 1983/4 Widespread 1991/2 1995/6 1999-2000 2004-2006 2008-	150,000 200,000 1.5m 1.41m 4.4m 11m 900,000	6.7 Billion (Food) 33.8 Billion
2.	Fire	All Urban Areas	1982-Nairobi 1990-Lamu 2004-Nairobi 2005-Kyanguli	10,000 20 Death 67 Death	Lives and property lost worth Billions of shillings.
3.	Floods	Nyanza, Coast, North Eastern, Western Provinces	1982-Nyanza 1985-Nyanza 1997/8-wide spread 2002-2003 –Nyanza, Western and NEP	4,000 10,000 1.5 M 24000- Displaced	Lives and property lost worth Billions of shillings.
4.	Train Accident	Along Railway line	1992-Mtito Andei	31-Death 207 -Injured	Lives and property lost worth Billions of shillings.
5.	Terrorist Bomb	Urban Areas and Strategic Areas	1998-Nairobi	250 Death 5,000-Injured	Lives and property lost worth Billions of shillings.
6.	Ferry Accident	Indian Ocean and lake Victoria	1994-Mtongwe Mombasa	270 -Death	Lives and property lost worth Billions of shillings.
7.	Road Accident	All Major Highways	Wide spread	Wide spread	Lives and property lost worth Billions of shillings.
8.	HIV/AIDS	All	1984-2008-Widespread	2.2m dead so far and 700 die daily	Current Prevalence rate of 7.8%.
11.	Earthquake	Major Towns	July 2007 Earth tremors	Nairobi, Mombassa, Nakuru	Public scare.
12.	Locust Invasion	Wide spread	Late 2007	Mandera, Wajir and Moyale	Wide spread loss of pasture and crops.
13	Livestock diseases Outbreak	NEP, Rift-Valley, Eastern, Central and Nairobi provinces	2006 2008	RVF outbreak PPR	Millions of Shillings of property lost.
14.	Air Accidents	All	1992 - Nairobi 2003 - Busia 2006 - Marsabit 2007- Cameroon 2008 - Narok	52 dead 3 dead 9 dead 149 dead – Kenya Airways 4 dead	Lives and property lost worth Billions of shillings.
15.	Human Conflict	Rift Valley, N/Eastern, Urban areas and parts of Eastern	2007-08 – Post election violence, inter communal conflict and cattle rustling	1139 dead and over 200,000 displaced	Lives and property lost worth Billions of shillings.

Daniel Haywood,
Managing Director

Vincent Kimaiyo,
Head of Air Operations



Visit iFlyUltraCam.com
to see the Ramani video.

“There’s no comparison when you look at quality, price and operational efficiency. That’s why **I fly UltraCam.**”



Ramani Geosystems has come a long way from the days of creating site surveys with a motorbike, a GPS, a handheld camera and a dream of “putting Africa on the map”. Even after migrating to its early aerial camera systems, Ramani recognized that a large-format camera would help it cope with the difficult flying conditions in Africa. “It’s not unusual to have just two hours in which to acquire data, so we needed a reliable camera that could capture larger images in a shorter flight time.”

With this in mind, Ramani chose Microsoft UltraCam.

The UltraCam family of cameras offers unparalleled flexibility, precision and an easy upgrade path to support the visions of ambitious organizations like Ramani Geosystems. Isn’t it time you looked at UltraCam? Visit www.iFlyUltraCam.com for full product and contact information.

ULTRACAM



Microsoft

Goals, and finally the Hyogo Declaration and Hyogo Framework of Action 2005 — 2015; Building Resilience of Nations and Communities to Disasters as agreed upon during the World Conference on Disaster Reduction held in Kobe, Japan in January 2005.

Primary actors in disaster management

Many existing institutions deal with disaster management but their activities are uncoordinated, reactive and sectoral. In the Office of the President, there is the National Disaster Operations Centre, Arid Lands Resource Management Project, Relief and Rehabilitation unit, National Food Security Office and National Aids Control Council. There are also envisaged specialized organizations and departments which have roles in search, rescue, anti-terrorism, evacuation, planning and management, enforcement of crowd control, conflict resolution and fire fighting. Systems for disaster and risk management are still centralized and tall neck bureaucratic red tape, which have not yet been devolved to the counties, making meaningful and effective response impossible. If city and town dwellers have a chance for quick rescue, those in rural areas and informal settlements must rely on prayers and faith in destiny.

Institutional framework (WHO)

Tools to facilitate implementation:

- Risk mapping, hazard and vulnerability analysis and research
- Standard Operating Procedures
- Public Communications Plans
- Handbooks
- Emergency Personnel Rosters
- Training and Training of Trainers
- Drills and Exercises
- Supply Chain, stock procurement, distribution arrangements
- Partnership and mutual assistance agreements
- Village and grass-root based units, which are not in place.

Organizational chart of the national disaster management organization

- National Disaster Management Council – Fully equipped

The lack of clear coordination at the national and departmental level has led to ineffective systems of management

- Central Operations Group (National Coordinator & Technical Team) - Fully equipped
- National Disaster Management Organization - Fully equipped
- National/Regional/District Technical Committees – Ill equipped
- Regional/Municipal/City Council Disaster Management Committees - Weak
- District Disaster Management Committees – Very weak
- Village Development Committees – Non-existent

Weaknesses and constraints in current disaster management

Weaknesses at the policy, planning and legislative level

To date, disasters are seen in the context of emergency responses and not part of the long-term planning and development government programmes. Therefore in times of disaster, the response is directed at the provision of emergency need; rescue and evacuation and also attending to the recovery phase.

In the absence of a clear policy framework, disaster management lacks a definite planning structure or approach. This is reflected both in the lack of legislation and in the setting of priorities in government expenditure allocations.

- The current draft policy and strategy does not take into account the need for adequate personnel at the national, county, location, sub-location and village levels.
- The past misconception of disasters as events over which people have no

control led to a low priority being given to the civil protection function until such an event occurred.

- Although it is now understood that people can do much to prevent or mitigate disasters, the low prioritization still remains.
- Many authorities are reluctant to move away from the Civil Protection-mode, until new directives and legislation materialize.
- The absence of or limited available guidelines to public and private sectors at national and county levels, on what their roles are in disaster management needs to be addressed.
- Contingency plans are an important element involving both public and private sectors. In some cases there is an absence of such planning, and in other cases the plans are designed without reference to preventative and mitigation measures that are already underway.
- Criteria for state intervention are based on the magnitude of the event (and how vocal and elaborate media reporting is), instead of the needs of the communities affected.

Weaknesses at the level of preparedness and response

The criteria for declaring a disaster or a disaster area are not clearly defined. In the past, each case has been judged on its own merits rather than according to a clearly defined set of criteria. It is also clear from recent and past experiences that the population at large is ill-prepared to cope with disaster situations. For instance, public awareness campaigns have tended to be launched only after commencement of disaster measures. The most vulnerable sectors of our community like pastoralists and small-scale farmers are ill informed or do not have easy access to information, due to language and other barriers. There is therefore a need for greater public education, preparedness, awareness and participation.

Weaknesses at the institutional level

The lack of clear coordination at the national and departmental level

has led to ineffective systems of management. This is often reflected in the poor responsiveness to dealing with disasters, and mixed signals from sources of expert information.

Past experience has shown that there is a need for a permanent risk reduction focus and disaster (emergency) management or coordination capability at national, county and local levels. This is necessary to ensure that planning, data collection, mobilization of expertise and setting up of disaster management structures can be done rapidly rather than in a reactive manner. In particular, there is a need for national and county departments of public works, water, health and agriculture to develop integrated proposals for relief at a local level throughout the country whenever there is a major loss of livelihoods (e.g., through drought, floods, fires, terrorism).

The ability of government to deal with disasters is based on the idea that there is adequate institutional capacity. However, the biggest weakness in institutional capacity lies at the county and local levels.

Budgetary constraints often result in departments (both those who have a primary role and those who have a secondary or support role), having limited capacity to respond effectively with minimum resources.

Coordination and funding mechanisms

Coordination in disaster management involves bringing together the different elements of complex activities or organizations into a harmonious and efficient relationship and to negotiate with others in order to work together effectively for the benefit of those affected by the event. Currently, disaster management coordination is lacking resulting in gaps and duplications, inappropriate assistance, inefficient use of resources, bottlenecks and impediments, slow reaction to changing conditions, frustration of providers, officials, and survivors, poor information transfer to the public and other organizations resulting in a loss or lack of confidence.

Legislative framework: What legislation is in place?

One of the main shortcomings of current legislation is that it refers only to disaster response issues. It places great emphasis on dealing with the consequences of disasters (a reactive approach) and disregards the approach required for disaster management, which includes the proactive or risk reduction approach, through thorough preparation and insurance.

A legislative framework is a critical factor for any Government Intervention undertaking. This is certainly true for the disaster management approach. Legislation needs to create an enabling environment, in particular at local government levels, which are institutions at the forefront and on the ground of disaster management.

What current legislation provides for:

Natural Disaster relief Act, 1982 and the Local Government Act (LGA) Chapter 265, in the Laws of Kenya have provisions that give local authorities the mandate to provide disaster mitigation, although they do not mention disaster management in the main Act. Sections 154 (d), 160c, 160K, 179, 166 have provisions for disaster management. Other pieces of legislation include Environment Management Act of 1999, Kenya Red Cross society Act (Cap 256), the Water Act (Cap 372).

In terms of national disaster relief Act: If the disaster is at the local level, the prime responsibility for handling the problem rests with the specific local authority. When the severity of the event is greater than the local government can handle, it must inform the province and request appropriate kinds of assistance. The Minister of State for Special Programmes has the power to declare a 'state of disaster'. In terms of the Act, there is no provision for funding from national government.

In terms of local government Act: The Ministry of State for Special Programmes will advise the President who can declare

an event to be a National Disaster. Financial assistance can be given from the disaster relief fund to victims of a disaster on an ex gratia basis for damages or losses.

The main problems with the legislation:

The present legislative framework can be a source of confusion as it introduces many levels where decisions could be taken. It does not provide a clear-cut delineation of authority and process for the declaration of a 'state of disaster'. In other words, there are no clear criteria for when the state should intervene.

A further weakness is that in the event of a disaster, fund-raising and the provision of financial disaster relief to victims cannot be undertaken within the framework of 'National disaster Relief' legislation, but is addressed under a separate Act - the Agriculture Act, the Livestock Act, etc.

Paradigm shift in disaster management

The policy talks of people centred early warning system for preparedness and response, but what we see missing is the empowerment of the people in counties, districts, divisions, locations, sub-locations, villages, grassroots in order for them to prepare to respond suitably.

Laws and regulation

Presuming that the overall objective of disaster management is progressively to minimize the impact of disasters on populations, vulnerability to disasters can only be decreased if the factors that contribute to it are tackled. Although in the recent past a policy on disaster management has been developed, the main challenges for the Kenyan Government is to promote a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education, encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability, mainstreaming disaster management into the developmental planning process.

- Ensuring efficient response and relief with a caring approach

towards the needs of the vulnerable sections of the society.

- Undertaking reconstruction as an opportunity to build disaster resilient structures and habitats for ensuring safer living.
- Promoting a productive and proactive partnership with the media and the private sector for disaster management.

The National Disaster Management Authority is mandated to deal with all types of disasters; natural or man-made. However, such other emergencies including those requiring close involvement of the security forces and/or intelligence agencies such as terrorism (counter-insurgency), law and order situations, serial bomb blasts, hijacking, air accidents, port and harbour emergencies, forest fires are on the increase and have not been clearly addressed in the current policy. When they occur, they are only handled by the extant mechanism, i.e., National Crisis Management Committee (NCMC) has to be set up to deal with the specific occurrence. This is both wasteful and expensive. Instead, there ought to be an anticipatory mechanism to facilitate preparation. Instead there ought to be more Integrated Disaster Risk Management (see model below) as opposed to Crisis Management which is the practice at the moment.

The disaster cycle or the disaster life cycle consists of the steps that emergency managers take in planning for and responding to disasters. Each step in the disaster cycle correlates to part of the ongoing cycle that is emergency

management. This disaster cycle is used throughout the emergency management community, from the local to the national and international levels. India, USA, Canada and the UK have models for Crisis Management that emphasize protection, prevention and preparedness.

Risk reduction and response

Opportunities to be considered: Some financial practices such as disaster risk insurance, micro-finance and micro-insurance, warranty on newly constructed houses and structures and linking safe construction with home loans ought to be considered for adoption.

Expectations and conclusion

It is clear that in some cases where disasters are recurrent, the level of disaster planning and management ought to be more advanced. In areas where there is thought to be no risk, the level of preparedness or the taking of preventative measures may not be well established, enforced or revisited.

The management of disasters by government departments at various spheres of engagement is almost entirely reactive in nature. It is also clear that the full continuum necessary for disaster management, such as prevention, mitigation, preparedness, response and rehabilitation is not an integral component of current disaster management systems. Rather, each disaster is treated as a crisis, and preparations are conducted to deal only with emergency situations.

There is a clear distinction between disasters that occur spontaneously, and those that are a result of cumulative effects. Such distinctions require different kinds of planning and management of risk. How do we deal with issues such as Aids, violence, and road traffic accidents? These are not seen as disasters but as individual incidents. Some of the main areas of concern are:

- The lack of coordination and integration of plans, strategies and resources at the national, county and local level.
- Lack of capacity, and knowledge of how to deal with disaster management, in particular with implementing preventative and mitigation measures.
- There is no integration of disaster management into development planning.
- Disaster management also requires a shift of thinking away from the use of only physical and technological measures in dealing with disasters. It must also incorporate and creatively explore the use of sociological and other human science approaches to dealing with disasters as part of long-term strategies.

Way forward

It is recognized that, to mobilize the community in responding to disasters, there is a need to have institutionalized frameworks and laws to facilitate the coordination of disaster management activities from the central level to local level.”

IT and communication: Communication and sharing of up-to-date information using state-of-the-art IT infrastructure remain at the heart of effective implementation of the disaster management strategy. Reliable, up-to-date and faster sharing of geo-spatial information acquired from the field or the affected areas is a pre-requisite for effective implementation of disaster management strategies, this is one of the challenges that Kenya faces.

- Significantly strengthened capacity to track, collate, monitor and disseminate information on phenomena and activities known to trigger disastrous events, supported by institutional emergency preparedness and response capacity by government and the private sector, communities and other non-governmental role-players.
- Increased commitment to prevention and mitigation actions that will reduce the probability and severity of disastrous events by incorporating these actions into policies, plans and projects of both government and the private sector. ▽

