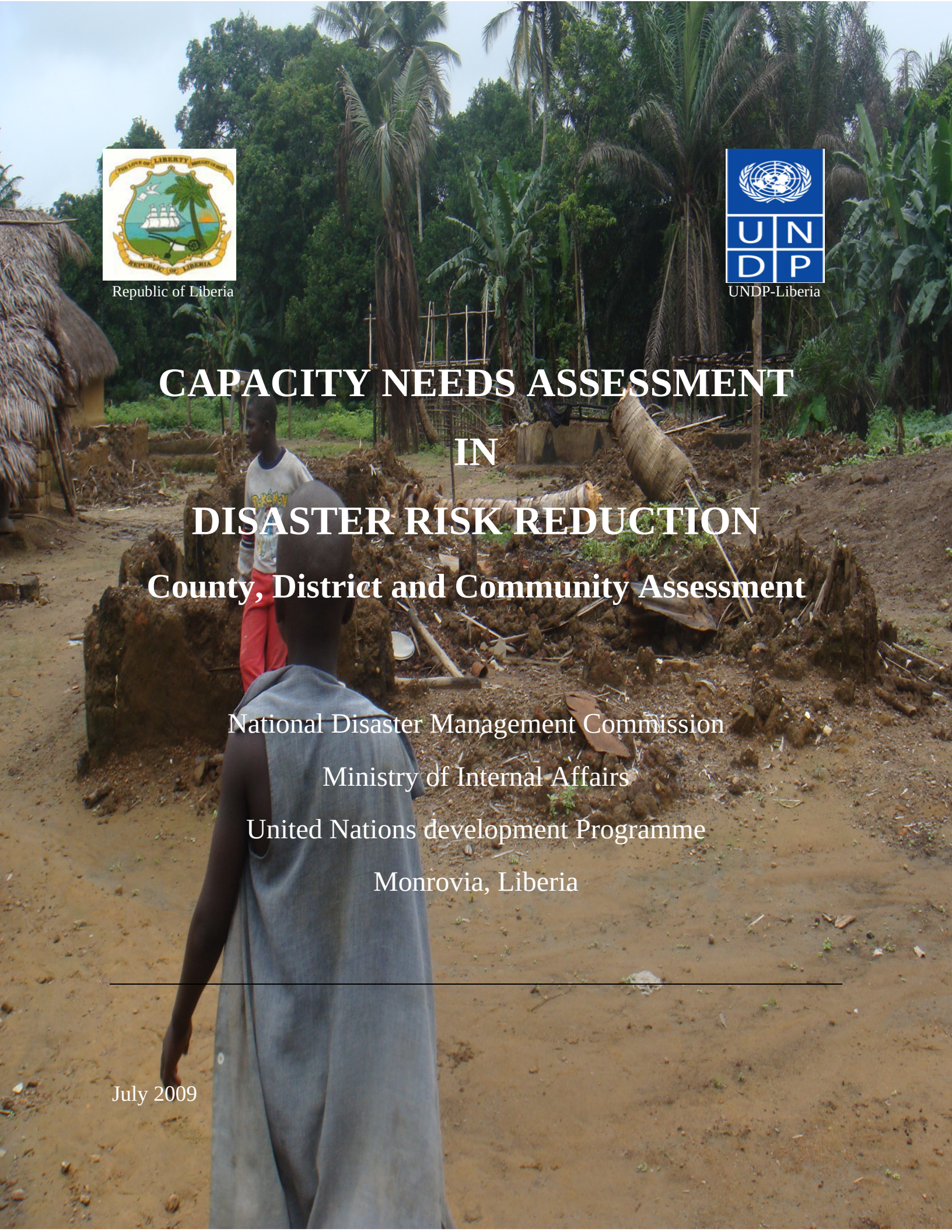


Republic of Liberia

UNDP-Liberia

CAPACITY NEEDS ASSESSMENT

IN

DISASTER RISK REDUCTION

County, District and Community Assessment

National Disaster Management Commission

Ministry of Internal Affairs

United Nations development Programme

Monrovia, Liberia

July 2009

Produced by
UNDP
P.O. Box 274
Monrovia, Liberia
Vsat: 0031205407121
Fax: +31205407121
Email: mail.lr.undp.org

In Collaboration with the

National Disaster Relief Commission
Ministry of Internal Affairs
Capitol Hill, Monrovia
Liberia

CONTENTS

ACRONYMS

ARSfDRR	African Regional Strategy for Disaster Risk Reduction
AU	African Union
BCPR	Bureau for Crisis Prevention and Recovery
CBO	Community Base Organization
CNA	Capacity Needs Assessment
CDA	County Development Agenda
CDSC	County Development Steering Committee
CST	County Support Team
DAC	Development Assistance Committee
DCD	Development Cooperation Directorate
DRC	Danish Refugee Council
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECOWAS	Economic Community of West Africa
EM-DAT	International Emergency Disaster Database
EPA	Environmental Protection Agency
EWS	Early Warning System
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GoL	Government of Liberia
HFA	Hyogo Framework of Action
HIV/AIDS	Human Immuno Virus/Acquire Immune Deficiency Syndrome
ICT	Information and Communication Technology
IDNDR	International Decade for Natural Disaster Reduction
INGOs	International Non-Governmental Organizations
ISDR	International Strategy for Disaster Reduction
LISGIS	Liberia Institute for Statistics and Geo-Information Services
LNRCS	Liberia National Red Cross Society
LRRRC	Liberia Refugees Repatriation and Resettlement Commission
M&E	Monitoring and Evaluation
MIA	Ministry of Internal Affairs
MDGs	Millennium Development Goals
MOHSW	Ministry of Health and Social Welfare
NAP	National Action Plan
NAPA	National Adaptation Plan of Action
NDRMP	National Disaster Risk Management Policy
NDRC	National Disaster Relief Commission
NDMCS	National Disaster Management Commission Secretariat
NGOs	Non-Governmental Organizations
NHDR	National Human Development Report
NRC	Norwegian Refugee Council
PDWG	Policy Development Working Group
PRS	Poverty Reduction Strategy
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDAC	United Nations Development Assessment Coordination
UNDP	United Nations Development Programme
UNMIL	United Nations Mission in Liberia
WATSAN	Water and Sanitation
WFP	World Food Programme

Executive Summary

1. Disaster Profile

The most common hazards causing disasters in the Liberian communities are floods, windstorms, fire, and sea erosion. Incidents of drought have also been reported. This climate related hazards are expected to worsen with climate change. A mini-survey was conducted in a bid to capture the most common hazards and people's perceptions. The result from that survey shows that windstorm constitutes 47% follow by floods, 23% which during the previous assessment was high in occurrence. Lightning is another potential hazard that is emerging. Disposal of toxic waste in rivers (water pollution) has been of some concern. Land disputes also have potentials for conflict. Epidemics and invasion by animals from Game parks are serious threats to some communities, especially in Lofa County, with some concern raised also in Sinoe County.

2. Findings on the Current State of Disaster Risk Management.

The basic findings of the assessment are that mechanisms for management, planning and coordination of disaster management and disaster risk reduction activities are generally non-existent at County level. Only Nimba County has a Disaster Preparedness and Awareness Committee, a coordinating mechanism, largely for responding to disasters in communities. In Lofa efforts have been made to establish a disaster relief committee, but with limited membership. The underlying reason is the absence of a national framework that defines structures and processes for disaster risk reduction at local government level. National Disaster Relief Commission mechanism exists only at central level in Monrovia and has no corresponding structures at County, District and Community levels. This is the key institutional gap.

Disaster management activity focuses exclusively on the provision of relief to communities affected by disasters. The response is generally uncoordinated and conducted on ad hoc basis. At County levels, activities are limited to assessments and reporting to the Ministry of Internal Affairs. Relief remains largely a central government business.

With respect to the financing of DRR the NDRC has an annual Budget of US $ 34,000. There are no designated funds and resources for DRR in local government systems.

At national level, no systematic risk identification and assessment has been undertaken, although local risk mapping exercises are reported in some Counties. Nevertheless most hazards listed above are generally known through observations and experiences of disasters. Causal factors are also generally known.

Training and public awareness programmes are generally not in place, although the Liberian Red Cross Society conducts trainings for its volunteers and public awareness programmes in a number of communities. Some Counties have also undertaken some intense awareness programmes. In Buchanan for example there was a one-month awareness campaign on sea

erosion. These activities are however sporadic and not sustained over time. Posters and Bill Boards in some cases tend to fill this gap in awareness raising. In the City of Buchanan are posters and bill boards continually reminding residents of the danger of sea erosion. In some counties EPA is actively involved in raising awareness of environmental hazards and sustainable environment management. Posters on the prevention of HIV and AIDS, Malaria and other threats are visible on throughout all the Counties visited. However impact of these on risk consciousness, behavior change and practice is not known. Disasters often provide opportunities for raising awareness of risks, but very few local authorities tend to take advantage of disasters as opportunities for awareness raising

Training and capacity building programmes do not exist except occasional training of volunteers by the Liberian National Red Cross and one-time training organized by the Nimba Disaster Preparedness Committee and funded by the Danish Refugee Council.

No visible concrete risk reduction programmes are in place. Implementation of zoning laws, city ordinances and building standards remain a huge challenge for local authorities. Efforts to relocate communities at risk especially in areas affected by sea erosion and floods are resisted largely due to fear of loss of livelihoods and lack of perceived viable options. From a developmental perspective of disaster there are project implemented by various sectors and organization covering areas such as food security, agriculture, health, water and sanitation, infrastructure development, education. While these programmes may contribute to overall vulnerability reduction, it is important that they integrate disaster risk reduction components. Discussion with some stakeholders demonstrated limited understanding and efforts to address disaster risk reduction issues. This limited understanding was also made evident by the responses gather from the mini-survey that shows 74% of randomly selected interviewees having limited or no understanding of disaster risk reduction.

There is no preparedness and contingency plans in most Counties. The disaster response, largely involving the provision of relief to disaster victims remains centralized and is conducted on ad hoc basis. The main activities at County level are limited to assessments of disaster events and reporting to the central government through the Ministry of Internal Affairs and the National Disaster Relief Commissions. The response process from the central government is very slow, inadequate and do not usually meet the immediate needs of disaster victims. There is also limited recovery and reconstruction support provided to affected communities.

3. Recommendations.

Based on the above findings, the following recommendations identify key priority actions that need to be undertaken immediately to strengthen disaster risk reduction in Liberia. The full range of recommendations appears in the main report.

3.1 Institutional Legal Framework

The overriding need for the development of capacity in disaster risk reduction and local government level is national framework and legislation that establishes disaster risk reduction mechanisms and defines responsibilities at various levels of Government.

a. The finalization and adoption of the National Disaster Risk Management Policy and the enactment of an enabling legislation must receive the highest priority.

b. The implementation of the policy and legislation through the establishment of the disaster risk management structures at all levels.

c. As an interim measure the establishment of coordinating mechanism at County level, drawing from the experience of Nimba County

d. Each County should embark on the development of a preparedness or contingency plan.

3.2 Training, Awareness (Sanitization) and Capacity Building

Training

Training and capacity development programmes should be implemented with immediate effect. The training programmes need to be implemented simultaneously as efforts are made to fast-track the adoption of the policy and establishment of the structures. The training will help in preparing the Central and Local Authorities for their new responsibilities. Some of the training at district and community levels can be facilitated by the LNRCS using their nationwide structures.

The following are the recommended target groups:

County Inspectors, LNRCS, EPA, LISGIS, Women's Network Focal Points, Gender Focal Points, Representatives of Youth Groups, PDWG, members of the secretariat, District Commissioners, City Mayors and Town Chiefs.

Sensitization:

While training is designed to impart knowledge and skills, sensitization raises awareness and understanding for policy makers, to help them appreciate the importance of disaster risk reduction and their key facilitating role in creating the necessary governance and policy environment. The target groups for sensitization are:

County Superintendents, Development Superintendents, members of the NDRC, UN Agencies, Legislators

3.3 Preparedness and Emergency Response

Decentralized capacity for disaster preparedness and response to disasters is an immediate priority. Because high levels of poverty and vulnerability among communities, quick, timely and adequate response is essential in saving lives and minimizing suffering. Preparedness has two aspects: improving early warning and capacity to predict and monitor and the ability to respond timely and effectively

Early Warning

The urgent need here is to re-build the hydro-meteorological stations and activate the PUMA Project.

In the absence of modern weather forecasting tools, there is need to sharpen and strengthen traditional early warning and communication systems. The practices documented in this report need to be built on and further documented. Local authorities and community leaders should take leadership in sensitization, awareness and utilization of these traditional systems.

Response Preparedness

a. Development of preparedness and contingency planning including sensitization on the National Contingency Plan.

b. Awareness raising among communities.

c. Capacity for logistics. As an immediate measure the office of the County Inspector should be provided with at least two motorcycles to assist with disaster assessment and response. In the medium to long term it is recommended that resources be mobilized to supply County Inspectors with at least one Four-Wheel Drive Vehicle for emergency and response purposes. Most disaster prone Counties should receive first priority

d. Storage facilities and stockpile of essential non-food items. Initially these could be placed in regional centers. Each County however should eventually have a response capacity

e. Emergency Fund. To enable effective and timely response to disasters each County should have an Emergency Fund. As an initial process Counties could be permitted to allocate a percentage (2-5%) of their development budget of US $200,000. Additional resources to support Emergency Fund should be mobilized by County Authorities in their respective counties by involving the private sector organizations in their DRR activities.

1. INTRODUCTION

1.1 Background

In 2007 and 2009 the Government of Liberia together with the United Nations Development Programme (UNDP) conducted a National Disaster Risk Reduction Capacity Needs Assessments. The Capacity Needs Assessments is part of the Government of Liberia National Process on Strengthening National (Liberia specific) Capacities in disaster risk reduction.

The first assessment carried out in 2007 focused largely at central and national level structures. Counties and Districts were not covered, although some limited consultation took place after the preliminary identification of priority DRR activities and needs, through an awareness raising campaign on DRR approach as well as training of county representatives.

The purpose of the first CNA was to identify and map out capacity development interventions for effective and efficient DRR implementation in Liberia. Specifically the assessment sought to:

a. Review the effectiveness of National Disaster Relief Commission (NDRC) and partner institutions in disaster risk reduction at local and national level.

b. undertake an inventory and review national capacity development initiatives in disaster risk reduction in Liberia

c. Develop a National Action Plan (NAP) for capacity development to enhance implementation of disaster risk reduction initiatives.

Building on the 2007 assessment the 2009 Capacity Needs Assessment targeted the Counties, Districts and Communities. The purpose was to assess capacities and gaps in disaster risk management at sub-national levels of government. The specific objectives were to:

a. Review structures and mechanism for management and coordination of disaster risk management at County, District and Community levels

b. Assess existing capacities and practices in disaster risk management and identify gaps

c. Update and finalize the National Action Plan for capacity development in disaster risk reduction.

Both assessments were guided by a Methodology developed by Southern Africa Development Community countries and UNDP/BCPR in 2004. The Methodology constitutes a conceptual framework and an operational guideline of information/data collection and analysis. Annex 1(a) and (b) give details of the framework and operational guideline. Annex 1 (c) provides the tools for the County and District Assessment.

1.2 Context of the Assessment; Situation Analysis

1.2.1 Socio- economic profile

Liberia is described as a country on the move.[1] After decades of economic mismanagement and fourteen years of brutal civil war Liberia is engaged in a process of reconstruction and development. Through the Poverty Reduction Strategy (PRS) the Government is introducing a broad set of policies to foster peace, accelerate reconstruction and development, and build strong systems of governance and respect for the rule of law. The PRS (2008-2011) provides a framework for medium to longer term socio-economic development and is founded on four strategic pillars: security, economic revitalization, governance and rule of law and basic services and infrastructure

While there has been considerable progress, there are still formidable challenges. These include pervasive poverty, food insecurity, massive illiteracy, unemployment and health risks that are heightened by a lack of access to basic health services. Humanitarian needs also persist and must be catered for in this period of transition to development as a foundation for recovery. (Draft UNDAF, April 2007)

The National Human Development Report (NHDR), 2006 estimates that half of the estimated populations of 3.6 million people live on less than half a US dollar per day with 86 percent living in rural areas. Only an estimated 32% of the entire population of Liberia has access to safe drinking water and less than 24% to adequate sanitation (WFP 2006). Adult literacy is 37% (50% male and 24% female) HIV/AIDS is on the rise with the sera-prevalence estimated at 5.7 percent (Liberia's Global Fund Proposal). Liberia's first MDGR, published in 2004) concludes that most of the MDG targets might not be achieved by 2015. (Draft Country Programme 2008-2011).

All these factors point to high level of vulnerability to disasters for a great majority of the Liberian people. These challenges also offer real opportunities for Liberia to tackle disaster risk reduction issues.

1.2.2 The Policy and Institutional Environment

Liberia's reconstruction and development is guided by national, sector as well as agency framework that provides tools for addressing disaster risk reduction issues. With the necessary political will and commitment, the current policy and development environment and various frameworks provide the context within which capacity development for disaster risk reduction will be facilitated and implemented. They present opportunities for integrating disaster risk reduction issues

[1] Poverty Reduction Strategy

First, the Poverty Reduction Strategy (PRS) is Liberia's blue print for national development as well as a framework for the achievement of the Millennium Development Goals. The PRS offers opportunities for integrating disaster risk reduction into national development as a cross cutting issue, thus providing a national direction. On the other hand, each of the four pillars of the PRS can make a significant contribution towards risk reduction in communities; The United Nations Development Assistance Framework (UNDAF) which derives from the PRS is the main tool for integrating disaster risk reduction into the programmes of the UN Agencies. In particular the centrality of capacity development in the UNDAF should benefit disaster risk reduction, where currently capacity is practically non-existent at all levels of government

The (draft) policy on decentralization and local government offers a great opportunity for building capacity for disaster risk reduction. Creating autonomous local authorities shifts the focus for disaster reduction and response to local level. This should ensure effectiveness in addressing local disaster risk reduction issues as well as ensure accountability of local authorities to communities.

Most of the disasters in Liberia emanate from climate hazards thus creating a synergy between climate adaptation strategies and disaster risk reduction actions. The three highest priorities of the National Adaptation Plan of Action, which are linked to poverty reduction, are also central to disaster risk reduction, in particular 2nd highest priority and the 3rd highest priority. The 2nd highest priority calls for enhancing climate adaptive capacity through rebuilding the national hydro-meteorological monitoring system. This will build capacity for early warning system, the heart of effective disaster risk reduction. The 3rd highest priority of NAPA which calls for reduction in the vulnerability of coastal urban areas from erosion, floods, siltation and degraded landscapes will address the effect of sea erosion which is Liberia's major hazard.
The draft National Disaster Risk Management Policy and the National Contingency Plan will provide the basic and the single most important institutional commitment for effective disaster risk reduction.

This report thus places the highest priority on adoption of the policy and the enactment of the enabling legislation as a necessary condition for building capacity in disaster risk reduction.

2. CAPACITY NEEDS ASSESSMENT PROCESS

2.1 Capacity Assessment Framework

The capacity needs assessment is a structured analytical process designed to assess and evaluate various dimensions of capacity within the broader institutional or environmental/ systems as well as assessment of the capacity specific units and individual within the system.

The capacity needs assessment framework of Disaster Risk Reduction is based on the concept paper and methodology adopted from UNDP/ BCPR and agreed upon in a consultative meeting with stakeholders in November 2008. The framework adopts the five components in the ISDR framework (Annex 1) for disaster risk reduction: institutional and legal framework, risk Identification and assessment, knowledge management, risk reduction applications and preparedness and emergency management (Table 1).

Table 1: Assessment Framework

Institutional and Legal framework	Political Commitment, Policy, Planning and legal and regulatory frameworks, organization structure including coordination mechanisms and resources
Risk Identification	Hazard analysis, risk assessment, impact assessment, early warning systems, risk mapping capacity and vulnerability analysis
Knowledge management	Information management, communications, education, research, training and public awareness.
Risk management applications	Mainstreaming disaster risk reduction into sectoral programmes – environment, social and economic development practices, infrastructure, physical and technical measures e.g. land-use planning, urban and regional development.
Preparedness and emergency management	Preparedness planning, contingency planning, early warning systems and vulnerability assessments

2.2 Definitions: Capacity and Associated Concepts

Capacity is defined as "the ability of individuals, organizations, organizational units and / or systems to perform functions effectively and in a sustainable manner". The ISDR terminology views capacity as the combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals. Capacity may include infrastructure and physical means, institutions, societal coping abilities, as well as human knowledge, skills and collective attributes such as social relationships, leadership and management. Capacity also may be described as capability. Capacity assessment is a term for the process by which the capacity of a group is reviewed against desired goals, and the capacity gaps are identified for further action

Capacity Development: Capacity development is the process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.

Capacity development is a concept that extends the term of capacity building to encompass all aspects of creating and sustaining capacity growth over time. It involves learning and various types of training, but also continuous efforts to develop institutions, political awareness, financial resources, technology systems, and the wider social and cultural enabling environment. The Development Assistance Committee (DAC) of the Development Cooperation Directorate (DCD) identifies capacity development as a challenge. It notes that adequate country capacity is one of the critical missing factors in efforts to meet the Millennium Development Goals and that development efforts in many of the poorest countries will fail, even when they are supported with substantially increased funding.[2] It is little wonder that capacity development is considered one of the priority activities in each of the frameworks discussed below. Capacity building for disaster risk reduction is one of the pillars of the disaster risk reduction strategy as a cross cutting issue in the "Hyogo Framework Action 2005-2015: Building the Resilience of Nations and Communities to Disasters" endorsed by 168 countries during the World Conference on Disaster Reduction in January 2005, and in the Africa Regional Strategy for Disaster Risk Reduction as well as Plan of Implementation of the Africa Regional Strategy for Disaster Risk Reduction endorsed by the AU Executive Committee in March 2006.

The key dimensions of capacity are summarized in Table 2 below.

Table 2: Dimensions of capacity.

Vision and Mission	Raison d' etre, mandate, clear statement of purpose, definition of products and services and clientele and mode interactions with broader system
Culture, Structure and competences	Organization structure and design, management values, performance standards and core competences
Processes	Internal and external processes supporting functions such as planning, coordination, client management, research and policy development, monitoring and evaluation, performance/ quality management, financial and human resource management processes.
Human resources	Knowledge, Skills, Competencies, Motivation and Ability/ capacity
Financial Resources	Operating and capital budget required for efficient functioning
Information Management	**ICT, all media.**
Infrastructure	Physical assets, equipment, infrastructure and enabling productive working environment
Community Coping Mechanisms	Traditional coping mechanisms, early warning systems community based support systems, organizations and social networks

[2] Development Assistance Committee (DAC) Network on Governance, "The Challenge of Capacity Development." February 2006.

The capacity for disaster risk reduction and disaster risk management at local government and community levels in Liberia is assessed along the five components of disaster risk reduction in the ISDR framework: Institutional and legal systems, risks identification and assessment, knowledge management, risk management applications and preparedness and response. Community coping mechanisms and traditional early warning systems were treated as important elements of disaster preparedness and response.

2.3 Approach and Methodology

2 3.1 Document Review

The mission commenced on June 14, 2009, with brief sessions at UNDP with Assessment Team and Assistant UNDP Resident representative. During the week of June 14-18 the consultant review some key documents. [3]A series of meetings were held with key institutions and sectors at central level. The purpose of these meetings were (a) to brief the relevant stakeholders on the background to the assessment and the purpose (b) to get an understanding of the operations of these institutions and their presence at County, district and community levels and (c) to seek assistance in sensitization of their units at those levels and as well (d) to get some guidance on how they can assist in gathering information. Meetings were held with EPA, LISGIS, the Policy Development Working Group (PDWG the United Nations Team, and the National Disaster Relief Commission (NDRC). The team had the opportunity to visit some victims of floods at Paynesville in Monrovia and a community in Virginia Hotel Africa Road that are at risk from Sea Erosion and Floods

3.2.2 Field Study

The field study in the Counties took place during the weeks of June 22 July 2 July 7-9 and July 15-18. The team consisted of: Boye Johnson, Project Assistant, UNDP; Morrison Chelleh, National Consultant; T. Dweah Nyepan, Acting Director, National Disaster Relief Commission, Claudia Page Cephas, Liberia Refugee Repatriation and Resettlement Commission (LRRRC); Zanda Johnson, Ministry of Gender and Development; and Aneson Ronald Cadribo, International Consultant

[3] Documents reviewed included: Draft National Disaster Risk Reduction Policy, 150 Day Action Plan, Poverty Reduction Strategy, National Human Development Report 2006, UNDP Annual Report, 2007, Liberia National Adaptation Programme of Action (NAPA) 2008, A Concept Note for Decentralization in Liberia: Issues and Challenges in Designing a Decentralization Programme, Draft Policy on Decentralization and Local Government, Reviving Economic Growth in Liberia (Steven Radelet1Center for Global Development.
November 2007, Comprehensive Assessment of Agriculture Sector – Synthesis Report, Policy on Education, First State of the Environment Report 2006,

In total 6 Counties were visited including Grand Bassa, Sinoe, Margibi, Nimba, Grand Cape Mount, Montserrado and Lofa. The Team visited 14 (2 in Monrovia) communities or areas that have experienced disasters within the last 12 months.

The team was unable to visit Counties of Grand Kru and Maryland as planned due to time constraints and roads inaccessibility.

2.3.3 Methodology

The following tools were used for country and community assessments: Town Hall meetings with multi-sectoral groups, focus group discussions, and key informant interviews with senior local authority and sector and agencies officials (See annex). Discussions were held with many communities namely: Kolahun in Lofa, Karnplay and Yekepa in Nimba County, Tewor Fahnbulleh in Cape Mount, Karmor and Bilibokree in Sinoe. The meetings and consultations had two objectives: a) sensitization of stakeholders on the basic concepts and issues in disaster risk reduction b) information gathering.

Universal Ground Rule for Rural Interaction

Appreciate the importance of local traditional knowledge

Respect all community members regardless of age gender and socio-economic Status

Appreciate gender differences in all actions involving women and men.

Consider the importance of knowledge held by elderly community members

Encourage community participation in all actions without imposing roles

Ensure transparency in all actions.

Avoid raising false expectations among community

Transect walks were undertaken in some of the communities to observe risk areas, vulnerability factors as well as the impact of disasters. The team also administered a mini-survey to gauge the understanding of disasters, perceptions of disaster risk and, coping mechanisms, levels of risk tolerance and willingness to take risk reduction actions.

Meanwhile the team also took in to consideration the universal ground rule for interaction with rural communities.

A tool was also designed for conducting an inventory of physical capacity such as building, facilities and equipment

3. **FINDINGS**

3.1 Disaster Profiles

3.1.1 Hazards

The most common hazards causing disasters in the Liberian communities are floods, windstorms, epidemics, fire, and sea erosion. Incidents of drought have also been reported. This climate related hazards are expected to worsen with climate change. The result from that survey shows that windstorm constitutes 39% follow by floods, 25% which during the previous assessment was high in occurrence. Lightning is another potential hazard that is emerging. Disposal of toxic waste in rivers (water pollution) has been of some concern. Land disputes also have potentials for conflict. Epidemics and invasion by animals from Game parks are serious threats to some communities, especially in Lofa County, with some concern raised also in Sinoe County. Epidemics are

Table. 3

Hazards	Rate of
Fire	14%
Flood	25%
Sea Erosion	20%
Windstorm	39%
Water Pollution	2%

Table 3 shows the aggregate rate of the most frequent hazards in counties visited. It does not include Montserrado

While disaster incidents are not documented, the scantly information obtained at County level was verified through the visits and discussions with affected communities and the traverse of the areas affected.

Environmental Degradation: Environmental degradation result largely from human activities, and include practices such as illegal mining of sand, sea erosion, soil erosion, and deforestation.

Fires: Fires are common in most cities. A fire outbreak in February 2009, in Tewor Fahnbulleh, Cape Mount County destroyed 19 houses and left many families homeless. A similar fire in 2005

The debris of some of 19 houses that were gutted by fire in Tewor Fahnbulleh Town, Cape Mount

burnt down one house. In Margibi County fire incidents occurred in 2006, 2007 and 2008 with houses destroyed, through details were not clear. Two fire incidents were reported in Greenville, Sinoe while in Grand Bassa fire incidents were experienced in 4 districts and in one case, a whole town in #3C District was reported to have burnt down, but details were not available. Most of these fire incidents occurred during the months of the Harmattan Wind, January and February and sometimes March.

The main causes of fire disasters are lack of awareness of the dangers of having farms too close to towns, the careless use of candles, the use of inflammable building materials, electrical short circuit and malfunctioning electrical appliances and in some instances lightning. The sale of petroleum products in containers is also a potential threat.

Floods: In Grand Cape, Grand Bassa, Margibi, Monrovia (Montserrado County) and Sinoe along river banks and river estuaries, among fishing communities along beaches and in wetlands. According to LNRC in Margibi in 2007 floods displaced more than 2500 people. Communities such as New Kru Town in Robertsport and Fanti town in Buchanan and Robertsport are constantly under water. There was a reported case of flooding that took the lives of a child and

her mother in Porulu in Kolahun district, Lofa County. Floods in Mid June in Monrovia displaced about 600 people mostly women and children. The effects of floods in Montserrado, along the Kpaipo River (July 9, 2009) is illustrated graphically in the picture.

Photo of a house submerged in the Kpaipo River community Montserrado

Contributing factors to floods are poor land use planning and management including poor drainage and uncontrolled settlements, lack of awareness of risks, lack of implementation and enforcement of zoning laws and non- adherence to building regulations

Windstorms: in February 2009 strong winds ravaged Karnplay in Gbehlay Geh District, in Nimba County, Karmoh Town and the neighboring town of Bilibukree in Sinoe County, Robertsport and Tewor Fahnbulleh in Grand Cape Mount County as well as Kolahun and Voinjama in Lofa County. In these cases houses, trees, livestock, banana plants were destroyed. In the Karnpaly and Kolahun disasters, public buildings (i.e. school buildings and hospitals) were damaged as well.

The main causal factors for windstorms are: the cutting of trees that act as windbreak, poor building design and constructional materials used such as sun-dried mud. For instance in Bakedu, Lofa County the inhabitants cut down the trees around the town thinking they were trying to beautify the town and create more ventilation. Few days later there was a wild windstorm that destroyed houses and livestock in the town.

Sea Erosion: Sea erosion is viewed as the number one threat in all coastal cities, such as Buchanan, Greenville and Robertsport. For example it is observed that sea erosion has removed at least 250 meters of beach in Balehwreh Town, since 1969, an encroachment of 6.6 meters per year. While the lack of technical data on the sea erosion processes is considered scarce,[4] the impact of sea erosion is visible everywhere. The same report indicates that in Buchanan City, in May 2008, Sea erosion destroyed houses and properties, leaving 1000 people homeless. In Robertsport, Grand Cape Mount County an Airfield is now under water and a sub-Police Station has been destroyed. Fishing communities in Buchanan, Greenville and Robertsport can no longer be regarded as "living by the sea" but "living in the sea."

[4] See Buchanan Sea Erosion Second Assessment Report, A Joint team of the Ministry of Land, Mines and Energy and Environment Protection Agency, June 2008)

While Sea erosion a natural process caused by high energy waves, it is exacerbated by human activities, such as sand mining, extraction of rock fragments and removal of scrape metals.

Photo of a home of a fisherman who use to “live by the sea” but now lives “in the sea” (Greenville)

Industrial Waste: Disposal of hazardous waste in plantation areas by Firestone Rubber is a major concern. Communities have complained of contamination of rivers to UNMIL Human Right Unit and Civil Affairs. Working with EPA, UNMIL has investigated the community’s concerns but notes that EPA has limited capacity to follow up. In consultation with environment unit of UNMIL Major Disaster Risk Issue for Government is the protection of these communities and their livelihoods against toxic waste.

Land Disputes: Issues of land disputes were also identified as having potential to generate conflict. As part of mitigation process one Land Commissioner proposes regular meetings between Land Commissioners to discuss common problems and identify strategies. Meetings between Land Commissioners and City Mayors are also considered necessary. Training Chiefs on regulations for land allocation and administration is regarded critical.

Other Hazards and Potential Disasters: Unregulated mining activity that resulted in a landslide in No Way Camp (1982) Grand Cape Mount Killing over 40 people. In Bangoma, the site of open diamond and gold mining, presents a potential danger of a landslide. In general unregulated mining activities may also negatively impact the environment.

The existence of crater in Robertsport indicates evidence of volcanic action perhaps in some distant past. The possibility of seismic activity needs to be investigated.

The issue of invasion of towns and villages in Lofa and Sinoe Counties by wildlife (Elephants, Chimpanzees, Buffalo, etc) needs some serious consideration from the Forestry Development Authority and relevant institutions.

Liberia is also known to be endemic for Cholera. Some communities especially in Montserrado including Monrovia, Maryland, Sinoe, Nimba, Gbarpolu and Grand Bassa Counties record outbreaks annually. The country has become more vulnerable due to the serious political-economic disruptions and intermittent civil wars which destroyed most infrastructures for response. [5] In Sinoe County the establishment of a Committee on Asian influenza indicates awareness of the threat of the epidemic and efforts to address it.

Photo of a potential danger in the Mining Town of Bangoma, Grand Cape County

[5] Liberia Cholera Control Contingency Plan, Ministry of Health and Partners. 2007

Table 1.1 provides summaries of disaster risk profiles and disaster occurrences by County. Note, this profile was gathered from counties and sites visited by the team.

Sinoe	
Hazards	**Rate of Occurrence**
Windstorm	**36%**
Sea Erosion	**41%**
Flood	**14%**
Fire	**9%**

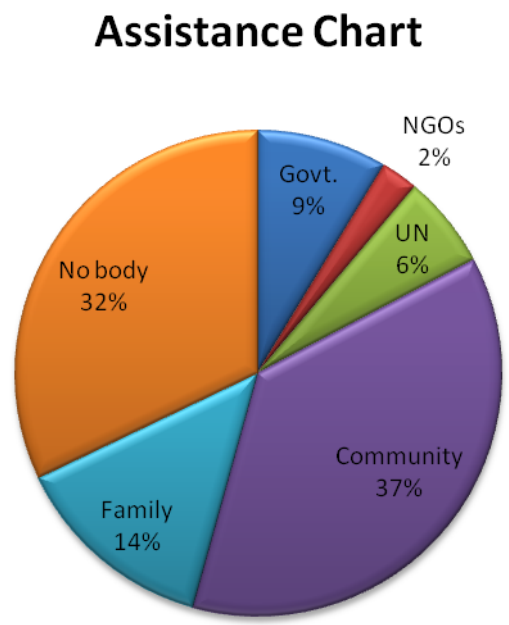
Nimba	
Hazards	**Rate of Occurrence**
Windstorm	**65%**
Flood	**25%**
Fire	**10%**

Margibi	
Hazards	**Rate of Occurrence**
Windstorm	**25%**
Floods	**59%**
Water Pollution	**8%**
Fire	**8%**

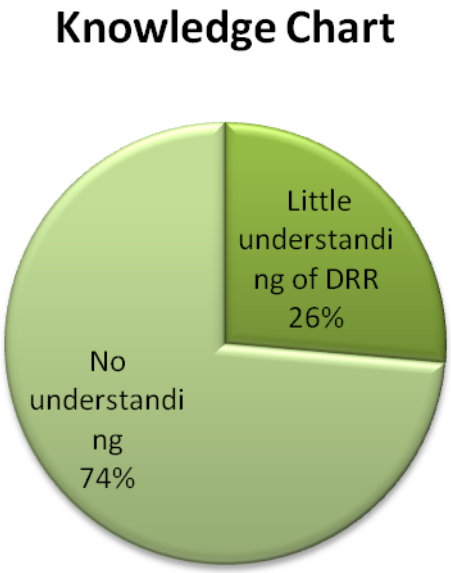
Grand Bassa	
Hazards	**Rate of Occurrence**
Windstorm	**17%**
Sea Erosion	**41%**
Flood	**17%**
Fire	**25%**

Grand Cape Mount	
Hazards	**Rate of Occurrence**
Windstorm	**10%**
Sea Erosion	**40%**
Flood	**30%**
Fire	**20%**

Lofa	
Hazards	**Rate of Occurrence**
Windstorm	**67%**
Flood	**13%**
Fire	**20%**



The chart above shows the level of asssistance received by victims in communities that were affected



This chart shows the level of DRR understanding amongst communities, local authorities and institutions visited.

Kind of Disaster	Affected Community		Approximated Number of Victims
	County	City/Town	
Flooding	Montserrado	Virginia	N/A
		Wein Town	500
		St. Paul Bridge Community	N/A
	Grand Cape Mount	Robertsport, Fanti Town	N/A
	Margibi	Jo-Bloe Town	N/A
		RIA Community(Smell No Taste)	N/A
	Nimba	Sanniquelle	N/A
	Lofa	Porulu	N/A
		Voinjama City	N/A
	Sinoe	Greenville	N/A
Sea Erosion	Montserrado	Virginia, Hotel Africa Community	N/A
		Sinkor 24th Street	N/A
		West Point	N/A
	Grand Cape Mount	Robertsport, New Kru Town	N/A
	Sinoe County	Greenville	N/A
	Grand Bassa	Buchanan	N/A
Windstorm	Nimba	Karnplay	N/A
		Tappita	N/A
	Sinoe County	Karmoh Town	N/A
		Bellibukree	191
	Lofa County	Kolba City	1050
		Wanwoma	420
		Tahamba	780
		Hendeh	158
		Wulukoha	180
		Bakedu	N/A
	Grand Cape Mount	Tewor Fahnbulleh	275
	Margibi	Vaila	90
		Katata	70
Fire	Grand Cape Mount	Tewor Fahnbulleh	275
	Montserrado	Sinkor Airfield	N/A
	Margibi	Mandingo Town	N/A
	Lofa	Foya	N/A

3.1.2 Vulnerabilities

Vulnerability of communities is fuelled by many factors and takes many dimensions. The main causes of vulnerability are pervasive poverty, food insecurity, illiteracy, unemployment, lack of awareness of risks, health risks destruction of infrastructure, poor governance, lack of institutional capacity including the inability to enforce regulations.

Poverty is the overwhelming source of vulnerability. Years of poor economic management led to rising levels of poverty. More than half of the estimated populations of 3.5 million people (2008 Census LISGIS) live on less than half a US dollar per day, with 86 percent living in rural areas. Unemployment in the formal sector is estimated at 80 percent, characterized by pervasive youth unemployment. The evidence of poverty is glaring for both urban and rural people. Poverty limits choices, determines where people live, and undermines coping capacity. For example in many fishing communities threatened by sea erosion, efforts to relocate people or ask them to move to safer locations are being vehemently resisted, because of the fear of losing their livelihoods. Protecting livelihoods seems to out-weigh the dangers posed by sea erosion.

The systems of governance are weak with very low capacity to provide services to the public, particularly in the areas of health, education, water and sanitation. This leaves the people vulnerable and hence unable to cope with disasters.

The country's physical infrastructure was destroyed leaving many communities inaccessible. Poor infrastructure impedes rapid delivery of assistance to communities during disasters. Lack of capacity to respond to disasters timely tends to aggravate the vulnerability of disaster victims.

Many of these factors increase vulnerability and risk to disasters. This means also that disaster risk issues require to be addressed on a broad front. Any efforts or programmes in health, education, infrastructure, water and sanitation and so forth aimed at improving the quality of life and livelihoods can make significant contribution towards strengthening people's capacity, enhancing coping mechanisms and building resilience.

Human Story

On June 17, 2009 the Assessment Team on DRR visited the disaster affected community in Virginia. During the visit the team met Mr. Zoana Gibson a resident of that disaster prone community. In an interview with Mr. Zoana, he said his father moved in the community to live during the construction of Hotel Africa, a hotel that was constructed to host the African Leaders and their delegations during the OAU summit in 1979. He moved in to live with his father in 1987 and considers the place the only place to live. A view his family shares with him as well.

He operates a primary school that is about 20 meters away from the sea, just right across the street. According to Gibson, 22 years ago the sea was about 50 meters away from where it currently occupies and continues to consume the land and at a faster pace. The community is also located at the bank of one of the tributaries of the St. Paul River. The tributary overflows during the rainy season basically because the covert that was built for passage is blocked. Every year they have to relocate whenever disaster comes from either front and later move back.

The community has been able to cope over the past decade with their back and forth movement but for how long will they continue to cope? They are at the mercy of these hazards that could become a disaster and that may occur at the same time and probable overnight

What happens to the community? The obvious answer would be that the community will be obliterated.

Despite these threats people are reluctant to relocate. The community is aware of the hazards, conscious of the risk but lacks capacity to mitigate the effect. Request for assistance from relevant authorities has fallen on fatal grounds. The community has attempted to at least unblock the culvert, but lack the technical capacity.

3.2 Governance and Institutional framework:

3.2.1 Management and Coordination

HFA Priority for Action: 1

Ensure that disaster risk reduction is a national and local priority with strong institutional basis for implementation

National policy and legal framework for disaster risk reduction exist with decentralized responsibility and capacities at all levels.

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels.

Community participation and decentralization are ensuring through the delegation of authority and resources to local level.

A national multi-sectoral platform for disaster risk reduction is functioning.

Institutional capacity includes management and coordinating structures, planning mechanisms, plans, policies and operational procedures. Capacity also includes partnerships and networks with resources and mandates that can be harnessed when needed.

The County administration is headed by the Superintendent as the Chief Administrative Officer representing the Ministry of Internal Affairs. Coordination of sectors and various stakeholders at County is performed through a hierarchy of forums or committees namely: Pillar Working Committees, the County Cabinet and the County Development Steering Committee (CDSC).

Starting at sector level where sector specific issues are discussed, these issues are taken to Working Committees (WC) organized around the four pillars of the Poverty Reduction Strategy (PRS) namely: Security, Economic Revitalization, Governance and the Rule of Law and Infrastructure and Basic Social Services. Each Working Committee also has sub-clusters.[6] The County Development Steering Committee is the highest development and planning and coordination body, where all sectors and pillars report progress and identify priorities. Disaster risk reduction however has not found way into the vocabulary of these forums. Nevertheless a planning and coordinating mechanism exists at County level that can be harnessed for disaster risk reduction. A common theme of inadequate institutional and operational capacity is consistently articulated in all Counties.

In Nimba County some progress has been made with the establishment of a Disaster Preparedness and Awareness Committee in 2007.The Committee is chaired by the County Inspector and meets when disasters are reported to undertake assessments. Lofa has also made some considerable efforts in establishing a disaster relief committee. There is nevertheless little evidence of systematic approach to disaster risk reduction. Activities at county level are limited to undertaking assessment after disaster and reporting to the MIA and NDRC. Relief assistance is often provided from the central level and largely based on personal, official and political

[6] Structure obtained from Nimba County "County Level CDA M&E Structures"

patronage. Many local authorities and communities raised concerns about the excessive delays in assisting victims of disasters.

3.2.2 Partnerships and Institutional Networks

Within a developmental and disaster risk reduction framework, disaster risk reduction is everyone's business. In this context all agencies and institutions operating at local level should be considered as a part of the local institutional capacity.

Many institutions and agencies including Non-Governmental Organizations, (both national and international) and private sector institutions operate at County and Community level. Because of the lack of coordination mechanism, it was not possible to obtain a comprehensive list of all stakeholders operating in each County, except for Nimba County. Some of the key institutions and agencies identified include the office of the Superintendent, the Liberia National Red Cross Society (LNRCS) the National Fire Services, Environmental Protection Agency the Ministry of Health and Social Welfare, Liberia Institute of Statistics and Geo- Information Services, Liberia Refugees Repatriation Resettlement Commission (LRRRC) and UNMIL.

The Office of the Superintendent: The Superintendent is the Chief Administrative Officer at County level and has oversight responsibility for all aspects of the County's development. However, the designated officer responsible for Disaster Risk Reduction is the County Inspector. There is no established coordination mechanism in any of the county except Nimba County where there is a Nimba County Disaster Awareness and response Committee established in 2007. Also in Lofa County a Disaster Relief Committee was established in 2008 but with limited membership consisting mainly of UN Agencies, NGOs and LRRRC. None of these Committees has any legal institutional status and they are not recognized at National level. In Grand Bassa County there was a task force constituted to address the problem of sea erosion. The task force is chaired by the Ministry of Public Works and a membership comprising of Land Commissioner, Ministry of Land, Mines and Energy, Arcelor Mittal and Buchanan Renewable Energy.

County Inspector: The County Inspector is the third in authority administratively in the county with oversight of all commissioners in the various districts. According to the MIA the Inspector is the focal point for disaster related issues/activities in the county. However, most County Inspectors appear not to be aware of this responsibility least of all have any knowledge of DRR.

District Commissioner: The District Commissioner is the chief administrator of the district. The district comprises of chiefdoms, clans and towns. The commissioner is accountable to the county inspector. In each district there are township commissioners who are accountable to the district commissioner.

Paramount Chief: The Paramount Chief is the head of the chiefdom. He/she is considered the "chief of chiefs". The paramount chief is accountable to the township commissioner. It is comprised of Clans and Towns.

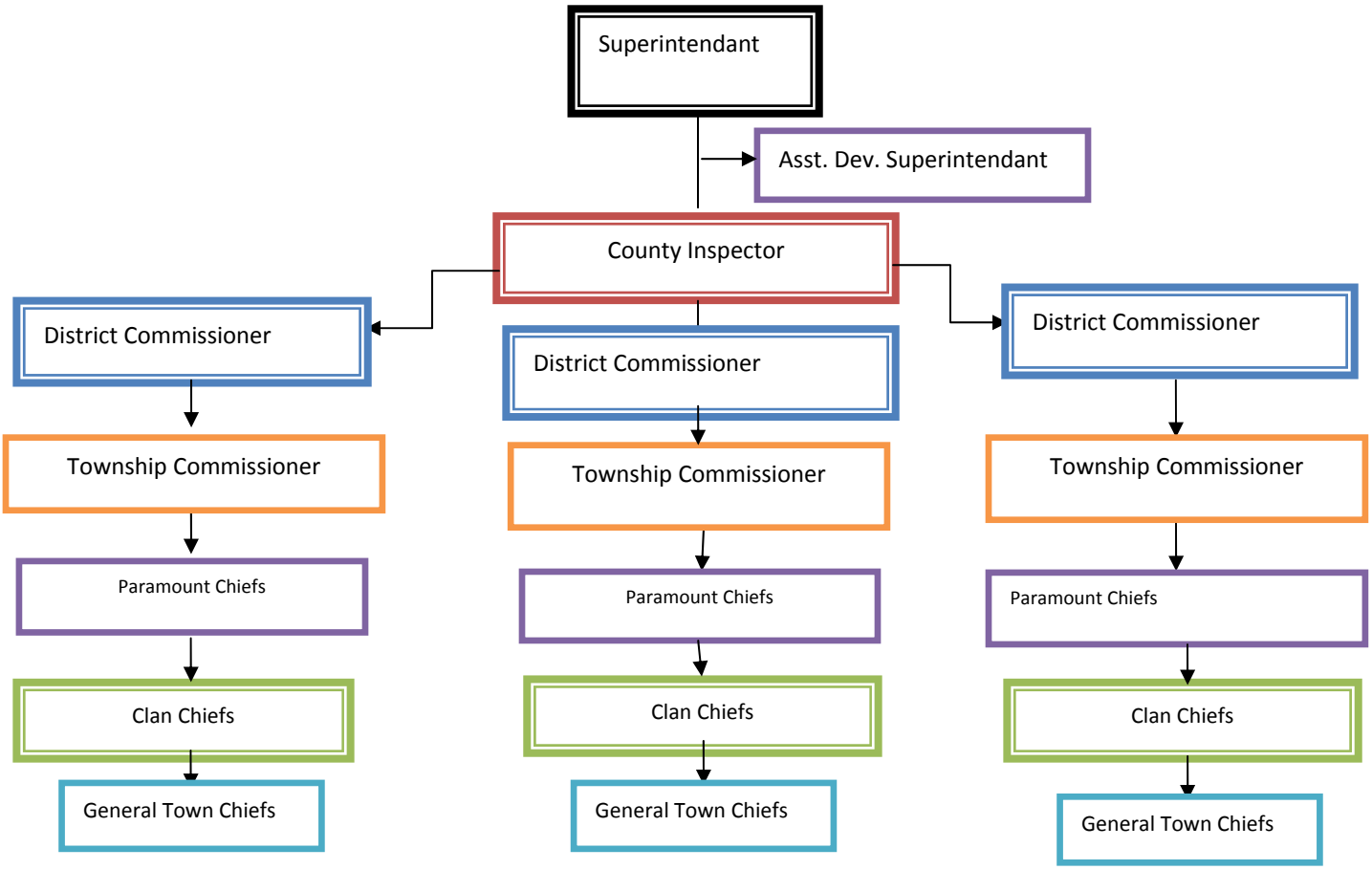
Clan Chief: The clan chief is the head of the clan. The clan comprises of towns. The clan chief is accountable to the paramount chief

General Town Chief: The General Town chief is the head of towns, and accountable to the Clan Chief He is aided by Town Chiefs who are also head of small towns. These General Town Chiefs are accountable to the Town Chief, who also is accountable to the clan chief.

The local structures (below the County structures) seem to be fairly coordinated through their leadership during periods of disasters. Local early warning and communication systems are quickly activated during disasters. Although there are constraints, disaster events are relayed quickly to the County authorities. However capacity to assist is nonexistent at district and local levels.

The effectiveness of these structures can be enhanced through training and awareness programmes.

Chart showing the chain of administration with specific reference to the strategic position of the County Inspector.



The Liberian National Red Cross Society: The Liberian National Red Cross Society, as the Red Cross Society elsewhere has the mandate for disaster preparedness and disaster response. The Red Cross is the partner to Government. In all Counties, the Red Cross is identified as the main actor in disaster response. Counties rely on initial assessment by Red Cross when disasters are reported by District and Community leaders. While the Red Cross is able to undertake initial assessment, in every County the lack of response capacity is identified as the major gap. The main strength of Red Cross currently is Field officers posted throughout all the counties and a cadre of committed volunteers that have been trained in disaster preparedness and response. To strengthen its disaster response capacity, the LNRCS has developed a Disaster Response Plan which provides guidance for providing immediate assistance to disaster victims.

The main gaps identified are logistics and emergency supplies. In some Counties, such as Sinoe, Margibi and Cape Mount efforts are being made to provide stockpiles of non-food items, with support from other National Societies notably the Spanish Red Cross Society. The Red Cross structures provide viable and sustainable mechanism for building sustainable capacity in disaster risk reduction. The capacity of the Red Cross nevertheless needs to be enhanced.

National Fire Service: The National Fire Services at County level are largely non-operational due to lack of capacity. Most have skeleton staff and there are no Fire Stations and equipment. In Grand Bassa County the National Fire Service is relatively prepared as compared to other counties. There is a fire truck that was donated by BRE and few extinguishers unlike other counties that are yet to have an office.

The need for trained manpower was also highlighted in all of the counties. In Margibi, the Fire Stone Rubber Plantation Company has a Fire Station that could be linked to the National Fire Service through proper coordinating mechanisms.

Photo of a dilapidated and empty structure use as the offices of National Fire Service in Sinoe County

Environmental Protection Agency: The EPA is in the process of decentralization. Currently EPA has offices in 8 of the 15 Counties. Environment Committees are to be established at County, District and Chieftainship. In Buchanan the EPA is making considerable efforts in raising awareness of environmental hazard and sustainable environmental practices.

UNMIL: The United Nations Mission in Liberia has prominent presence in all the 15 counties and constitutes the main capacity support for local government authorities. As Mandated by Resolution 1509 the United Nations Mission in Liberia has an overarching role in complimenting and building the capacity of local authorities. The PRS is the main framework through which UNMIL supports the efforts of the Government. This support is been channeled largely through the County Support Team (CST).Local authorities can also benefit from UNMILs' logistics apparatus for disaster response. In a number of Counties UNMIL participates in disaster assessment and response activities. It also provides strong advocacy for rights based development programmes. However, counties seem to vary in their attempt to tap into the resources of UNMIL.

Ministry of Health & Social Welfare: The Ministry heads the County Health Team and works with the Red Cross Society and other stakeholders in assessments and responding to health related aspects of disasters, sometimes providing medical supplies. In Kakata the Ministry of Health is attempting to address the problem of teenage pregnancy, through awareness programmes in family planning, and promoting the use of contraceptives in schools.

Ministry of Gender: It is believed that for a successful implementation of the HFA there must be a full, active and balance participation of women, men and children in disaster risk reduction activities. Though very vulnerable (women and children) they are also very resilient; therefore, must form an integral part of any disaster risk reduction activities. Some of the Key gender issues that underline the vulnerability of women and children are gender-based violence, rape, persistent non-support by father, child labor teenage pregnancy and the high rate of illiteracy. The High rate of illiteracy among women is particularly of concern as it acts as a constraint for women's participation in decision making processes.

> "Women are vital agents of change, holders of valuable knowledge and skills and can be powerful leaders from communities in disaster risk reduction"
>
> The Manila Declaration

During disasters the key issues specific to women and children include Shelter, health in camps, and need for counseling during disasters as women tend to get disorientated and confused.

The Ministry of Gender and Development is working through Women's Groups together with Women and Children Section of the Liberia National Police in providing training and awareness on Sexual and Gender based Violence (SGBV).

The existence of Women's' Groups and Networks and Youth organizations provides channels that can

be used to address gender related issues. These groups are thus critical targets for capacity development interventions

The major gaps in addressing gender related issues are the lack of logistical support and poor collaboration and coordination with agencies.

Community Radios: Most Counties have Community Radio stations that can be useful tools for early warning information dissemination and communication. Lack of financial resources however prevents local authorities using radio facilities especially for awareness raising.

3.2.3 Planning:

Each County has a County Development Agenda (CDA), a local complement of the Poverty Reduction Strategy. The CDA developed through a consultative and participatory process, provides a blue print for each County's development. It identifies key priorities for each County and critical interventions required for realizing the objectives of the PRS and Millennium Development Goals (MDGs). The CDA is thus a tool that can be used to integrate disaster risk reduction programmes into the development agenda of each County.

However, a review of several County CDAs indicates that there is little or no reference to natural hazards. Some CDAs make reference to environmental hazards, but with no links to associated disaster risks. There is no evidence of a consciousness or understanding of risks as problem for County development. This in spite of the fact that hazards such as sea erosion, floods and strong winds have been experienced in some communities in most of the Counties. This simply illustrates that disaster risk concepts have not yet found their way into the development dialogue in Liberia in general and particularly at local level.

With the exception of One County, there is no disaster preparedness or contingency plan.

3.2 **Risk Identification and Analysis**

No systematic risk identification and assessment has been undertaken, Areas at risk are however generally known through observations and experiences of disasters as in the case of Cape Mount. The LNRC Cape Mount Chapter has identified areas like Gbassalor, Central Wards, Fanti Town to be flood prone, Tosor, Sembehum, Tewor District to be Windstorm prone, etc. The City Corporation of Sanniquille in Nimba County has also undertaken some limited risk assessment exercise.

It is noted that the UNDP is currently in the process of recruiting a firm to undertake a national hazard mapping, risk assessment and vulnerability analysis exercise.

Risk identification is closely linked to early warning, as indicated in the diagram below. In Liberia no early warning mechanisms are existent at local government levels. Activation of the PUMA project discussed under section 3.5 and rebuilding of the hydro-meteorological stations should strengthen early warning systems in Liberia.

HFA Priority 2: Continuous identification and assessment of disaster risks, including the monitoring and early warning of hazards provides the very basis of disaster risk education. Risk identification and assessment are the necessary first steps for any disaster risk reduction initiative and involves two sets of activities: hazard analysis and assessment of risks in including vulnerability analysis.

At community level the use of traditional methods such as town criers, bells and drums are used as warning and communication methods. These traditional early warning systems need to be documented and utilized.

Elements of Effective Early warning

3.3 Education and Knowledge Management

There is little activity going at County or District levels with respect to knowledge management and education. Few people have received training in DRR and public awareness has been conducted in some Counties on a limited basis. Public awareness programmes are not in place, only the LNRCS conducts regular public awareness programmes, through its volunteer corps. Bill boards and posters are common modes of public awareness addressing issues such as prevention of malaria, HIV and AIDS, sea erosion, environment.

Some training has been undertaken by the Red Cross, on limited basis, restricted to Red Cross structures. Some local government officials have received some limited training through the consultation processes on the draft National Disaster Risk Management Policy.

In Nimba County the County Administration collaborated with the City authorities in holding a "Flood Disaster Awareness Workshop" supported by a broad range of agencies. The workshop was for raising awareness of the danger of floods for all people living in wetlands.

HFA Priority 3: To succeed in building resilient of societies, DRR needs to be integrated into the country's many sectors. This can be achieved through better information management, training opportunities to the various professions, incorporating disaster risk reduction into educational programmes at primary, secondary and tertiary levels. Training builds capacities that allow individuals to take responsibility for their own safety and further the disaster risk reduction agenda. Training activities also provide the opportunity to discuss traditional or indigenous practices and to integrate into or abandon them in formal DRR practice. Targeting DRR education at school is effective as schools are respected places of learning and teachers are often seen as leaders and can influence behavior. Similarly, universities and institutions of higher learning allow an open forum for exchange of ideas not easily found in other societal institutions. Public awareness programmes are essential in order to develop active and continuous commitment for risk reduction measures. The public should be made aware of the hazards they face and how to reduce their vulnerability, including practical

3.4 **Risk Management Applications**

The issue of disaster risk reduction is closely link with development. We are more likely to undermine our agricultural, economics, infrastructural, political, gains by ignoring disaster risk reduction. Various sectors and organizations are implementing projects such as food security, agriculture, health, water and sanitation, infrastructure development, education. While many of these projects may contribute towards improving livelihoods and building the capacity of communities, and thus reducing vulnerability to disaster, there is also need to consciously target disaster risk issues. As it is, there is little evidence of understanding or sensitivity towards disaster risk reduction. Discussion with stakeholders and results of the mini survey has indicated limited knowledge and understanding of disaster risk reduction.

There are nevertheless efforts and initiatives to tackle the challenges of climate change and Sea erosion. Liberia's National Adaptation Programme of Action (NAPA) has identified three key priorities to address the effects of climate change. The three highest priorities of the National Adaptation Plan of Action, which are linked to poverty reduction, are also central to disaster risk reduction. In particular 2nd highest priority which calls for enhancing adaptive capacity through rebuilding the national hydro-meteorological monitoring system, will build capacity for early warning system, the heart of effective disaster risk reduction. 3rd highest priority of NAPA calling for reduction in the vulnerability of coastal urban areas erosion, floods, siltation and degraded landscapes will address Liberia major hazard.

Many of the disaster faced in the communities can be reduced through more effective implementation of policies, laws, ordinances such as zoning, building regulations, waste disposal, and prohibition of cutting of trees and so on. Communities exposed to disaster risks especially in coastal areas can also be encouraged to relocate.

In some towns during the period of the Harmattan there are local laws that prohibits the use of fire in towns within hours specified by the chief (10am to 4pm) but there are always violators who put the towns at risk.

> **HFA Priority 4:** Risk Reduction Applications means mainstreaming disaster risk reduction in development programmes and integrating risk reduction into sectoral activities. As examples: introducing hazard-sensitive land-use and urban planning, addressing the issue of informal construction, and improving the standards for construction will, in the long term, reduce the growing risk of urban centres; The protection of critical facilities and infrastructure, for instance through relocation and structural retrofit, as well as the protection of assets scales down the impact of disasters significantly making them more manageable and less costly to the nation.

3.5 Preparedness and Response

As noted disaster response is undertaken on ad hoc basis and there is generally no preparedness and contingency planning except in Nimba County as discussed below. The Red Cross is currently piloting establishment of Response teams in 8 Counties. Meanwhile, a mini-survey conducted in affected areas shows that the community is always the first line of assistance to victims which is obvious. Though the community is not prepared and with limited capacity, 37% of responses gathered shows that the community provided assistance follow by family members, government, UN Agencies to include UNMIL and NGOs,14%,9%,6% and 2% respectively . It also shows that 32% got no assistance from any of the above mentioned. (See chart 1.)

In most cities Fire Hydrants are non-functional and fire extinguishers are not available, even though business owners are willing to install them.

3.5.1Coordination

There is no systematic coordination. Disaster response and management of relief is ad hoc,

3.5.2 Early Warning

No early warning system is in place. There are no hydrometric stations throughout Liberia. In a number communities traditional early warning systems are practiced, but not on a systematic basis. These include observation of weather patterns, observation of cloud formation and color, observation of tree. For example communities generally understand that trees provide protection against strong winds. It is also known that strong wind and fires are associated with dry seasons, while floods are associated with the rain season. This is basic knowledge that should normally inform preparedness measures, however most of its traditional value seems to be lost.

Individual with the knowledge and understanding of weather patterns are often reluctant make go public for fear of being ridiculed. This knowledge is also being lost to young generations who regard them as archaic.

Community Radio Stations are ideal channels for disseminating early warning information Counties however are constrained by lack of finances from making use of these radio facilities.

Liberia however, has dormant capacity for weather forecasting capacity for early warning through the PUMA Project which Liberia is a part. It is a network of 53 Countries and four regional centers in Africa linked to a direct reception of new data stream from the new European Weather Satellite, Meteostat Second generation (MSG).

Under the project Liberia received an antenna and computing equipment in 2004. The system is stationed in Roberts International Airport, but is currently not working.

The most common use of Meteostat in Africa is for routine weather forecasting. The data obtained from the system can be used for a multitude of purposes: to provide better and more timely information for early warning of natural disasters, improved food security, better health management, more efficient water and energy management, as well as the strengthening of environmental monitoring. It also has the ability to track Desertification and Climate Change effects.

Activating the system would address the current vacuum in Early Warning System (EWS) The PUMA Project will provide much needed capacity for weather monitoring and early warning, as efforts to rebuilt Liberia's hydro-meteorological stations are stepped up as recommended in the National Adaptation Plan of Action.

3.5.3 Contingency Planning

Only One County has a Preparedness and Contingency Plan. Nimba County has an "Integrated Contingency Plan for Awareness and Response to Disaster. The Plan is quite comprehensive and covers most aspects of emergency response and relief requirements. It provides a brief description of key sector services identifies key hazards and the regions most at risk. It outlines objectives, planning parameters, target populations, and identifies key actors with definitions of roles and responsibilities.

The key weaknesses of the plan are lack of identification of the preparedness measures that need to be in a place and an absence of a framework for public awareness. Missing is also an identification of disaster risk measures needed to address the vulnerabilities in the disaster prone communities. The transition from response to recovery provides opportunities for articulating disaster risk reduction measures. Nevertheless the existence of such a plan sets Nimba County apart and demonstrates a sense of direction and leadership in addressing disaster issues, and therefore a framework that can be built.

3.5.4 Response Mechanisms

HFA Priority 5: *Disaster preparedness plays a critical role in saving lives and livelihoods particularly when it is integrated into an overall disaster risk reduction approach. Strengthening preparedness for hazard events is mainly concerned with two objectives: increasing capacity to predict, monitor and be prepared to reduce damage or address potential threats and strengthening preparedness to responds in an emergency and assist those who have been adversely affected. Disaster Preparedness is undertaken to address likely scenario through contingency plans, and often include preparedness for post-disaster actions. Disaster response requires policy makers and practitioners to look beyond replicating pre-disaster conditions of communities, to address in a participatory manner the vulnerabilities of communities and groups. It should be informed by lessons learnt from previous*

With the exception of Nimba County, there is no coordinated emergency response system at County level.

3.6 Cross Cutting Issues

3.6.1 Gender

Key Issues are gender-based violence, rape, persistent non-support by farmers. Poverty has also generated child labor. Teenage pregnancy is also identified as a major challenge, especially in Kakata City. High rate of illiteracy among women is considered major source of vulnerability, as acts as a constraint for women's' participation in decision making.

Specific capacity development and awareness programmes should therefore be targeted towards, women especially.

3.6.2 Resource Mobilization

Currently there are no budget allocations for disaster risk reduction. One of the key priorities is the allocation of a budget for disaster risk reduction. A strategy for mobilization of resources for disaster risk reduction will need to be integrated into the reconstruction and n programme.

3.7 Assessment of Dimensions of Capacity

DIMENSIONS	AVAILABLE CAPACITY
Vision and Mission	Vision and mission articulated in draft National Disaster Risk Management Policy. No County has articulated a vision and mission for DRR.
Culture, Structure and competences	Little or no coordination. Largely ad hoc response
Processes	Non in place
Human resources	No personnel designated for DRR. Knowledge and skill are limited
Financial Resources	Non in place
Information Management	Non in place
Infrastructure	None
Community Coping Mechanisms	Limited coping mechanism. Largely family. Traditional knowledge and early warning exist but of limited utility

4. MAIN CAPACITY GAPS

The overriding need for the development of capacity in disaster risk reduction and local government level is national framework and legislation that establishes disaster risk reduction mechanisms and defines responsibilities at various levels of Government. In the context, the finalization and adoption of the National Disaster Risk Management Policy and the enactment of an enabling legislation must receive the highest priority. The implementations of all other recommendations for capacity development for DRR, including the National Action Plan will depend on the existence of a DRR policy and legislation, leading to the establishment of structures and mechanisms at national and local levels. To realize the developmental objectives of the Hyogo Framework of Action and Millennium Development Goals DRR will also need to be integrated into the Poverty Reduction Strategy.

Within the context of this overarching gap, the capacity gaps in DRR at County, District and Community levels can be summarized as follows:

4.1 Governance and Institutional Mechanism

Disaster risk management remains centralized. Counties and Districts do not have established disaster management structures and where any exists it is not officially recognized. Coordination mechanism is not in place both at County and District levels. There is planning activity relating to disaster risk reduction, and DRR is not reflected in County Development Agendas.

4.2 Risk Identification and Assessment

There is no risk mapping and hazard analysis in place. LISGIS which has requisite skills and knowledge lacks the technical capacity and adequate equipment to undertake hazard analysis. Early Warning Systems are not in place.

4.3 Knowledge Management

Little training is being undertaken in DRR, whatever knowledge has been acquired has been received through workshops. Only the LNRCS undertakes some limited training for its volunteers. There is no continuous public awareness programmes to sensitize communities of disaster risks, except those undertaken by the Red Cross and few other NGOs.

Disaster events and disaster management processes are not documented.

4.4 Risk Management Applications

Disaster risk reduction not integrated into PRS or any sector polices and strategies at local levels. There is limited capacity at local government levels to implement basic risk reduction measures

such as zoning, building procedures, location of farming, environment impact assessment and similar measures

4.5 Disaster Preparedness Mechanism

It suffices to say that disaster preparedness measures such as contingency plans, coordination mechanisms, logistics capacity, and stockpiles so forth, are generally missing.

5.0 Recommendations

The recommendations identify the key priority actions for capacity development in disaster risk reduction for Liberia.

5.1 Governance: Legal and Institutional Systems

a. Government should adopt the National Policy on Disaster Risk Management
b. Parliament should enact Legislation on disaster risk reduction.
c. Government should establish structures and mechanism provided for in the Policy at National County, District and community levels
d. Government should decentralize the disaster risk management including decentralization of resources.
e. Government should demonstrate commitment to disaster risk reduction ensure that disaster risk reduction integrated into the PRS
f. Government should establish a National Platform for DRR
g. Resources for capacity development for DRR should be provided through budgetary allocations and mobilization of funds from the international community
h. Government should develop and implement a capacity building programme

5.2 Risk Identification and Assessment

a. Government should conduct a risk assessment and a hazard mapping exercise and integrate with the vulnerability analysis exercise.
b. Build the early warning system
c. Each County should undertake hazard analysis and risk assessment
d. Strengthen capacity for LISGIS in risk assessment
e. Document traditional early warning and communication systems

5.3 Knowledge Management

a. Develop training and staff development plans at national and district levels.

b. Develop training programmes for partners at central level, DDMTs, Local Authority personnel and VDMTs.

c. Develop a sustained and regular programme for national disaster risk reduction awareness for all levels, with special focus on Local Authorities

d. Establish mechanisms for collaboration between the University and training institutions to enhance training, education and research.

e. Through the National Platform, ensure that disaster risk reduction is included in school curricula at all levels.

f. Ensure greater participation and involvement of the media in information dissemination on DRR

5.4 Risk Reduction Applications

a. Facilitate the mainstreaming of disaster risk reduction into the PRS and sector development strategies and programmes.

b. Strengthen and enhance the implementation of risk reduction measures and activities already programmes in sectors such as agriculture, health and environment.

c. Enhance EPA capacity for environmental impact assessment and implementation of building codes

d. Increase awareness of communities on the importance of adhering to building procedures. Empower chiefs to regulate farming locations/ distances from towns.

e. Document traditional early warning and communication systems and educate communities on their use.

f. Build capacity of City and town authorities for implementation of zoning regulations and city ordinances

   Raise awareness and mobilize communities towards proper waster disposals.

   Mobilize communities to participate in clearing drainages

g. Development building codes and regulations should be made mandatory for and by relevant institutions and structures such as Municipal Authorities and Regional and Urban Planners and Land-use plan.

h. Ensure that DRR is integrated into Country Assistance Programmes of development partners.

i. Ensure greater involvement of the private sector in disaster risk reduction through their involvement in disaster risk reduction awareness and planning

j. Implement tree planting programmes in vulnerable communities

k. Implement the NAPA priority actions

5.5 Disaster Preparedness and Emergency Response

a. Increase operational capacity by building planning and logistics capacity and their links at central and district levels.

b. Sensitize Counties and Districts on the National Contingency Plans.

c. Facilitate Counties and Districts, Cities and Towns to develop disaster preparedness plans, with clear definition of responsibilities and coordinating authority for emergency response

d. Strengthen the National Fire Services (Facilities, equipment and personnel.

e. Develop a comprehensive training for Youth and Women's groups

References

Ministry of Health and Partners, Cholera Control, Liberia, Contingency Plan, March 2007
Liberia, Community Rights Law, 2008
Government of Liberia, Draft National Disaster Risk Reduction Policy,
Government of Liberia, 150 Day Action Plan, Poverty Reduction Strategy: A Working Document for New Liberia.
UNDP, National Human Development Report 2006,
UNDP Annual Report, 2007,
UNDP Annual Report, 2008.
United Nations in Liberia, United Nations Development Assistance Framework 2008-2012
Liberia National Adaptation Programme of Action (NAPA) 2008,
Edward Mugabi, UNDP, A Concept Note for Decentralization in Liberia: Issues and Challenges in Designing a Decentralization Programme,
Government of Liberia, Draft Policy on Decentralization and Local Government,
Steven Radelet "Reviving Economic Growth in Liberia" (for Global Development) November 2007,
Comprehensive Assessment of Agriculture Sector – Synthesis Report, Policy on Education,
First State of the Environment Report 2006,
Maryland County, County Development Agenda

Nimba County Development Agenda

Sinoe County Development Agenda

Margibi County Development Agenda

Grand Kru County Development Agenda

ANNEXES

Annex 1: Summary of Assessment by County

Grand Bassa County

RISK IDENTIFICATION					GAPS
Date	**Institutions**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
June 22-23, 09	LNRC Fire Service LIGIS Min. Gender Min. LME Superintendant District Commissioners Paramount Chiefs, City Mayor, land Commissioner UNMIL,Affected Communities	Sea Erosion(major) Floods Fire Disaster	Poverty, Lack of DRR/DRM Structure, Lack of Preparedness, Means of livelihood, Inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Stubbornness	No early warning system, Disasters are expected during the change of season, rising tides strong waves, etc	Lack of DRR structure Lack of continuous awareness Lack of knowledge/concept of DRR Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early Warning System

Sinoe County

Risk Identification					GAPS
DATE	**INSTITUTIONS**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
June 24-25, 09	LNRC Fire Service LISGIS Min. Gender Superintendant Min. Agriculture Clan Chiefs Town Chiefs City Mayor, land Commissioner UNMIL Affected Communities	Windstorm Sea Erosion Floods Fire Disaster Wildlife Lightning	Poverty, Lack of defined DRR/DRM Structure, Lack of Preparedness, Means of livelihood ,Inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Stubbornness Poor Infrastructure	There are Traditional Early Warning though most often not consider Disasters are expected during the change of season	Lack of DRR structure Lack of awareness Lack of preparedness Lack of knowledge/concept of DRR Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early warning System

Margibi County

RISK IDENTIFICATION					GAPS
DATE	**INSTITUTIONS**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
June 26-27, 09	LNRC land Commissioner UNMIL, LRRRC Mini. Gender	Flood Fire Water Pollution	poverty, lack of DRR/DRM Structure, Lack of Preparedness, inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Poor Infrastructures	No Early Warning System in Place Disasters are expected during the change of season	Lack of DRR structure Lack of awareness Lack of knowledge/concept of DRR No Contingency Plan Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early Warning System

Nimba County

RISK IDENTIFICATION					GAPS
DATE	**INSTITUTIONS**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
June 24-25, 09	LNRC Fire Service LISGIS Min. Gender Superintendant Min. Agriculture MoH/SW Clan Chiefs Town Chiefs City Mayor, land Commissioner UNMIL,Affected Communities	Windstorm Floods Fire Disaster Lightning	Poverty, Inadequate awareness activities Inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Poor Infrastructures Stubbornness Deforestation	Traditional Early Warning((movement and color of clouds) Disasters are expected during the change of season	Recognition of DRM Structure Inadequate awareness Lack of knowledge/concept of DRR Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early Warning System

Grand Cape Mount County

RISK IDENTIFICATION					GAPS
DATE	**INSTITUTIONS**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
July 06-08, 09	LNRC Fire Service LISGIS Superintendant Min. Agriculture Town Chief City Mayor, land Commissioner UNMIL Affected Communities	Sea Erosion Fire Floods Windstorm	Poverty, Inadequate awareness activities, Means of livelihood, Inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Stubbornness Poor Infrastructure	Traditional Early Warning (color of the Clouds) Disasters are expected during the change of season	No DRR Structure in place Inadequate awareness Lack of knowledge/concept of DRR No Contingency Plan Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early Warning System

Lofa County

RISK IDENTIFICATION					GAPS
DATE	**INSTITUTIONS**	**HAZARDS**	**VULNERABILITIES**	**EARLY WARNING SYSTEMS**	
June 15-18, 09	LNRC LISGIS Superintendant District Commissioners Min. Agriculture Paramount Chief Town Chiefs City Mayor, land Commissioner UNMIL Affected Communities	Windstorm Fire Floods Wildlife	Poverty, No awareness activities, Inability to enforce regulations that mitigates disaster(zoning, building codes, etc) Stubbornness Poor Infrastructure	Traditional Early Warning (color of the Clouds) Disasters are expected during the change of season	No DRR Structure in place No awareness Lack of knowledge/concept of DRR No Contingency plan Lack of logistics/equipment (Vehicles, firefighting equipment, etc.) Early Warning System

Capacity Needs Assessment Team Members

Aneson Ronald Cadribo	**International Consultant**	**UNDP**
Morrison N. Chelleh	**National Consultant**	**UNDP**
Boye Johnson	**Project Assistant Energy & Environment**	**UNDP**
T Dweah Nypean	**Acting Director NDRC**	**MIA**
Claudia Page Cephas	**Field Coordinator**	**LRRRC**
Zanda Johnson	**Planning Officer**	**MOGD**
Joseph Zeah	**Driver**	**UNDP**

INTERVIEWEES

Name	Institution	Position	Location
Hon. Jimel A. Kamara	MIA	County Inspector	Lofa County
Stephen Tamba	UNMIL	Civil Affairs Officer	Lofa County
Joseph S. Cooper	LRRRC	County Coordinator	Lofa County
Ervin A. Yango	UNHCR	OIC	Lofa County
Santigie L. Sesay	UNMIL	Civil Affairs Officer	Grand Bassa County
Nettie Doepoe	MODG	Gender Coordinator	Grand Bassa County
C. Pupo Toe	LNRCS	Field Officer	Grand Bassa County
Isaac Duah	LISGIS	County Director	Grand Bassa
Thomas Q. Suah	MIA	County Inspector	Nimba County
Emmanuel Zangboy	LNRCS	Health Care & DMO	Nimba County
Rufus S. Leesaw	LRRRC	Field Monitor	Nimba County
Hon. Ciapha Jaleiba	MIA	Commissioner	Nimba County
Hon. John Z. Buway	MIA	Development Supt.	Margibi County
Danilette D. Asilton	MODG	Gender Coordinator	Margibi County
Dorothy Ben Everett	MIA	Land Commission	Margibi County
Eddie Murphy	LRRRC	Field Monitor	Margibi County
Col. James Y. B. Freeman	NFS	Commander	Margibi County
Jean Fokwa	UNMIL	HRO	Margibi County
Eric V. Pinney	MIA	County Inspector	Grand Cape Mount
Sheik Musa Nyei	LNRC	Field Officer	Grand Cape Mount
Erasmus D. Fahnbulleh	MIA	Development Supt.	Grand Cape Mount
Joseph N. Jah	MIA	Development Supt.	Sinoe County
Juhah Kanmoh	LNRC	Field Officer	Sinoe County
Alexander Slewion	LISGIS	County Director	Sinoe County

DISASTER RISK REDUCTION TERMINOLOGY

Capacity:

A combination of all the strengths and resources available within a community, society, or organization that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social, or economic means as well as skilled personnel or attributes such as leadership.

Contingency Planning:

A management tool used to analyze the impact of potential crises and ensure that adequate and appropriate arrangements are made in advance to respond in a timely, effective and appropriate way to the needs of the affected populations

Disaster

A serious disruption of a community or society causing widespread human, material, economic and environmental losses, which exceed the ability of the affected community / society to cope using its own resources.

Disaster Risk Management (DRM):

The systematic management of administrative decisions, organization, operational skills and capacities to apply policies, strategies and practices for disaster risk reduction.

Disaster Risk Reduction (DRR):

The systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) adverse impact of hazards, within the broad context of sustainable

Early Warning System:

The provision of timely and effective information, through pre-identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response. Early warning systems include a chain of concerns, namely: risk knowledge (by systematically collecting data and undertaking risk assessments); monitoring and warning service (by developing or strengthening such services); dissemination and communication (by communicating risk information and early warning), and response capabilities to undertake appropriate and timely actions in response to the warnings.

Ecosystems:

A functional unit consisting of all the living organisms (pants, animals and microbes) in a given area, as well as the non-living physical. Chemical factors of their environment, linked together through nutrient cycling and energy flow. Ecosystems can be of any size – a log, a pond, a field of Earth's biosphere – but it always functions as a unit.

Ecosystems services/ Ecosystem good and services:

The benefits people derive from ecosystems. These include provisioning services such as food and water, regulating services such as floods and disease control; cultural services such as spiritual, recreational and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on earth,

Emergency management:

The organization and management of resources and allocation of responsibilities for dealing with all aspects of emergencies. It includes preparedness, response and rehabilitation measures.

Environmental degradation:

The reduction in the capacity of the environment to meet social and ecological objectives and needs. Potential effects are varies and may contribute to an increase in vulnerability and frequency and intensity of natural hazards. Some example include land degradation, deforestation, desertification, loops of biodiversity, land, ware and air pollution, climate change, sea level rise and ozone depletion.

Geological hazard:

Natural earth processes of phenomena that may cause the loss of life or injury, property damage and economic disruption or environmental degradation.

Geographic Information Systems (GIS):

Analysis that combine relational databases with spatial interpretation and outputs often in the form of maps. A More elaborate definition is that of computer programmes for capturing, storing, checking, integrating, analyzing and displaying data about the earth that is spatially referenced

Governance:

The system of values, policies and institutions by which a society manages its economic, political and social affairs through interaction with and among states.

Hazard:

A potentially damaging physical, event, phenomenon or human activity, which may cause the loss of life or injury, property damage, social and economic disruption and environmental degradation.

Hazard analysis:

Identification, studies and monitoring of nay hazard to determine its potential, origin, characteristic sand behavior.

Hydro-meteorological hazards:

Natural processes of phenomena of atmospheric, hydrological or oceanographic nature, which cause loss of life or injury, property damage, social and economic disruption or environmental degradation.

Mitigation: Structural and non-structural measures undertaken to limit the adverse impact of natural hazard, environmental degradation and technological hazards

Monitoring:

The process of performing regular or continuous observations and recording them for use in scientific studies, alert or early warning systems. The process of monitoring is set up to detect abnormal behavior of phenomena or comparison with thresholds and limits that can indicate that a danger may be imminent. Monitoring can be done through visual human observations, or automatically through instrumentation.

Preparedness:

Activities and measures taken in advance to ensure effective response to the impact of hazards, including issuance of timely and effective early warning and the temporary evacuation of people and property from threatened locations.

Prevention:

Activities to provide outright avoidance of adverse impact of hazards and means to minimize related environmental, technological and biological disasters.

Recovery:

Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary measures to reduce disaster risk.

Relief/Response:

The provision of assistance or intervention during and immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of immediate, short-term of protracted duration.

Risk:

The probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interaction between natural and human-induced hazards and vulnerable conditions.

Risk assessment/analysis:

A methodology to determine the natural and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat of ham to people, property, livelihoods and the environment on which they depend

Sustainable development:

Development that meets the needs of the present generations without the ability of future generations to meet their own needs.

Vulnerability:

The conditions that determine the physical, social, economic and environmental factors or processes that increase the susceptibility of a community to the impact of hazards. It is the existence of conditions of defencelessness and insecurity resulting from physical, social, economic and environmental factors, which expose a community to the impact of hazards. In contrast positive factors, which increase the ability of people to cope with hazards, are referred to as **capacity** (a *combination of all the strengths and resources available within a community, society, organization that can reduce the level of risk or the effects of a disaster)*

Vulnerability analysis:

A methodology use to determine the existence of the degree of vulnerabilities-m the degree to which individual human characteristics influence the impact of the hazard on them.

Universal Ground Rules for Rural Interactions

- Appreciate the importance of local traditional knowledge.
- Respect all community members regardless of age gender and socio-economic Status.
- Appreciate gender differences in all actions involving women and men.
- Consider the importance of knowledge held by elderly community members.
- Encourage community participation in all actions without imposing roles.
- Ensure transparency in all actions.
- Avoid raising false expectations among community members.

United Nations Development Programme
Simpson Building
Sekou Toure Avenue
1000 Monrovia, Liberia