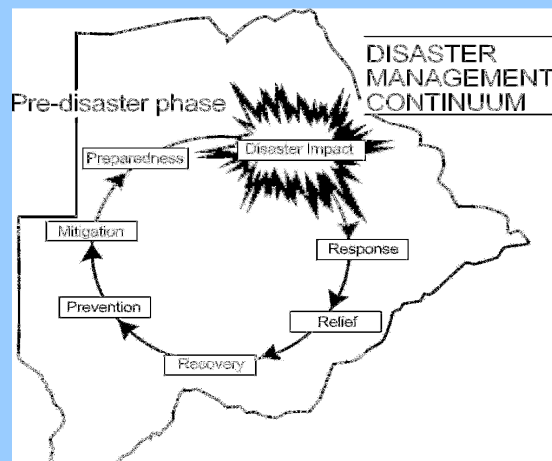




Republic of Botswana

THE REPORT OF THE AUDITOR GENERAL ON DISASTER MANAGEMENT



**BY THE NATIONAL DISASTER MANAGEMENT OFFICE
PERFORMANCE AUDIT REPORT**

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GLOSSARY AND ABBREVIATIONS

BDF	-	Botswana Defence Force
BPS	-	Botswana Police Service
CS	-	Council Secretary
DC	-	District Commissioner
DO	-	District Officer
DDM	-	District Disaster Management
DDMC	-	District Disaster Management Committee
DDMTC	-	District Disaster Management Technical Committee
DEC	-	District Emergency Coordinator
EOC	-	Emergency Operations Centre
DEOC	-	District Emergency Operations Centre
ESF	-	Emergency Support Function
IC	-	Incident Commander
ICP	-	Incident Command Post
ICS	-	Incident Command System
IDRD	-	International Disaster Reduction Day
IRT	-	Incident Response Team
MOA	-	Ministry of Agriculture
MLG	-	Ministry of Local Government
MOH	-	Ministry of Health
MMEWA	-	Ministry of Minerals, Energy and Water Affairs
MWT	-	Ministry of Works and Transport
NCDM	-	National Committee on Disaster Management
NCMO	-	National Disaster Management Office
NDMTC	-	National Disaster Management Technical Committee
NDMP	-	National Development Management Plan
NEC	-	National Emergency Coordinator
NEOC	-	National Emergency Operations Centre
NETF	-	National Emergency Task Force
NGOs	-	Non-Governmental Organisations
NPDM	-	National Policy of Disaster Management
OAG	-	Office of the Auditor General
OP	-	Office of the President
RMMP	-	Risk Management Master Plan
SADC	-	Southern African Development Community
S&CD	-	Social and Community Development
SRP	-	Supplies Regulations and Procedures
TOR	-	Terms of Reference
UNDP	-	United Nations Development Programme

EXECUTIVE SUMMARY

National Disaster Management Office (NDMO) was established in 1998 vide Presidential Directive CAB 31/98 of 15th December 1998. NDMO is responsible for the overall coordination of disaster management in Botswana. The Department falls under the Development Division in the Office of the President. It has three (3) Sections namely: The Information, Education & Public Awareness; Operations, Control & Coordination; and Logistics & Communications. Stakeholders involved in the coordination and implementation of the disaster management programme are Government Ministries and Departments, Parastatals, the Private Sector and Civil Society.

In Botswana, potential and actual disasters include drought, floods and animal diseases. These adversely affect human lives, livestock, habitat, infrastructure and disrupts social and economic development. An audit was carried out to find out whether disaster management structures existed and were working efficiently to deliver the Government Policy on Disaster Management.

The following is a summary of findings and recommendations detailed in the report in Chapters 4 and 5 respectively:

FINDINGS

1. National Disaster Management Legislation

The National Policy on Disaster Management (NPDM) had provided for development of a comprehensive National Legislation on disaster management. The Legislation would have been an umbrella to synchronise the sector specific disaster Acts. At the time of audit NDMO had not developed the legislation to coordinate enforcement.

2. Guidelines and Procedures

One of the functions of NDMO was to prepare and update the Guidelines. A review of the files and in-depth analysis of data contained therein and interviews with the district officers indicated that no Guidelines had been developed and Procedures formulated. This was corroborated by interview with the Director of NDMO. The Guidelines and procedures would interpret the Policy and provide guidance to stakeholders on what roles to play and processes to follow for preparedness, mitigation and response.

3. Emergency Operations Centre

OAG appreciates the fact that NDMO use the existing capacity and resources as far as possible. For instance, the Botswana Police Service stations countrywide are used as Emergency Operations Centres (EOCs) during disasters. OAG observed that the EOC was not established at national level. However it is mandatory that it be established at national

level in order to provide a centralised location, where all decisions would be made and activities coordinated by one body with a single voice during emergencies.

4. Resources

Human

There was very little or no capacity building for stakeholders involved in disaster management, hence response to incidents was slow. In most cases Committees focused only on the response factor of disaster management continuum instead of being proactive. Capacity in respect of disaster management at national and district levels was not developed in terms of basic infrastructure such as necessary skills to efficiently implement the disaster management programme.

4.2 Other Resources

4.2.1 Equipment

OAG found out during review of files at national and district levels that tents were either not complete (missing accessories), worn out or not collected from the victims after disasters. Moreover, review of files revealed that equipment was not used at appropriate places. With this situation prevailing, NDMO or DDMCs would not be prepared to respond promptly.

4.2.2 Database

NDMO had an inadequate and therefore unreliable database due to information not forthcoming from the districts. NDMO would benefit from a database that would allow them to record and maintain easily accessible information on the existence of property/commodities earmarked for disaster.

5. Evaluation

The programme had never been evaluated since NDMO's inception 7 years ago. The programme if evaluated, would apprise Parliament and all other stakeholders on whether it has achieved its stated objectives and value for money had been achieved. It would also provide independent measure of accountability that would be used to assess its impact since inception.

CONCLUSION

Notwithstanding the fact that the implementation of the disaster management programme was constrained by absence of Legislation from which the programme could derive its legislative authority and the fact that Guidelines and Procedures, National Disaster Management Plans, Database had not been developed, OAG acknowledges that NDMO, with the limited capacity and resources, managed to provide its best under the circumstances.

RECOMMENDATIONS

1. NDMO should ensure that legislation is developed to enforce disaster management measures on sectoral departments, private organizations and communities. Guidelines and procedures would give directions to all stakeholders and outline processes to be followed.
2. NDMO should develop Guidelines and procedures to interpret and explain in detail what the legislation and policies entailed.
3. NDMO should develop the NDMP and ensure that it is cascaded to districts (District Disaster Management Plans). NDMO should review and update the plans annually and ensure that they are cascaded to district level.
4. NDMO should develop a Strategic Plan that would ensure that NDMO and DDMCs focus in their disaster management activities.
5. NDMO should establish EOC at national level to achieve the objective of being proactive.
6. NDMO should ensure that the number of staff is strengthened and skill improved in order for the department to achieve its mandated activities
7. NDMO should devise mechanisms that will enable it to efficiently coordinate and monitor performance of the DDMCs. NDMO should also devise a reporting mechanism that would encompass all the disaster management structures. The mechanism should ensure that disaster management activities are reported regularly. The reports should be compiled annually to inform Parliament and stakeholders on the progress of the programme.
8. NDMO should evaluate the programme in order to apprise Parliament and all other stakeholders on whether it has achieved its objectives and also to assess its impact since its inception in 1996.

CHAPTER I

1. INTRODUCTION

1.1 BACKGROUND

Disaster management is an integrated series of activities and strategies involving disaster mitigation (and/or prevention), disaster preparedness and emergency response (including recovery, rehabilitation and reconstruction) implemented within the national development context. Botswana is likely to suffer the following potential and actual disasters; drought, earthquake, floods; veld and urban fires, epidemics (such as malaria, measles and chicken pox), HIV/AIDS, pest infestations, animal diseases, accidents (motor vehicle, Aircraft and Industrial), chemical spills, and hazardous materials

National Disaster Management Office (NDMO) was established in 1998 vide Presidential Directive CAB 31/98 of 15th December 1998. NDMO was established to improve coordination and effectiveness of disaster management in Botswana in order to promote sustainable development.

1.2 DISASTER MANAGEMENT INSTITUTIONAL FRAMEWORK

National Disaster Management Office (NDMO) falls under the Development Division in the Office of the President. A Director heads the unit. NDMO has three (3) sections: the Information, Education & Public awareness; Operations, Control & Coordination; and Logistics & Communications. Other stakeholders involved in the disaster management are national and district disaster management and technical committees. NDMO's mission; goals, objectives, mandate, and functions are as follows:

1.2.1 Mission Statement

NDMO is committed to coordinating and ensuring effective implementation of the National Policy on Disaster Management (NPDM) by facilitating the provision of comprehensive and integrated disaster management programme for disasters through effective measure of planning, early warning systems, mitigation, preparedness, response, recovery and development.

1.2.2 Mandate

The main responsibility of the NDMO is to ensure that disaster risk reduction is made an integral part of all development planning processes and activities and also to ensure a high state of disaster preparedness at national, district and local levels. This massive task can only be achieved through close collaboration between relevant stakeholders such as Ministries and Departments, Local Authorities, Private Sector, Communities, Individuals and International Organisations.

1.2.3 Goals

The following are NDMO's goals:

- a) To protect life, the environment and prevent loss of property from all types of hazards (both natural and human-made) through a risk prevention management approach.
- b) To strengthen inter-agency coordination and create an effective joint disaster management capacity with all stakeholders.
- c) To determine types of disasters, frequencies of their recurrences and their impacts.

1.2.4 Functions

The NDMO is responsible for proactively formulating national disaster management systems and coordination across the disaster spectrum within the framework of the National Policy on Disaster Management through:

- Establishing and maintaining a comprehensive Disaster Management Information system including:

An electronic data-base (meteorological forecasts, hydrological information, geographical information system)

- Providing early warning of an approaching disaster and predictions of its possible effects on the country, the population and peoples' livelihoods.
- Preparing and updating the National Disaster Management Plans and Guidelines.
- Formulating Standard Operating Procedures for emergency response and management.
- Maintaining strategic reserves of essential commodities and equipment at national and district levels with which to mount immediate disaster relief whilst further national and international assistance is being mobilized.
- Formulate guidelines for preparation of district and sectoral disaster management plans and to supervise the preparation of such plans.
- Maintain an up date inventory of all available resources (institutional facilities and equipment that can be called upon to respond to disasters).
- Formulate and implement, in partnership with training and academic institutions, programmes in disaster management education, training and public awareness, including training needs assessment, for all levels of government, communities, as well as NGOs as part of capacity building and disaster preparedness.
- Maintaining capacity for assessing vulnerability in partnership with academic and research institutions, NGOs and communities.
- Build partnership with other structures in developing disaster management programmes.

1.3 NATIONAL POLICY ON DISASTER MANAGEMENT

The National Policy was formulated in 1996. The Policy is meant to:

- Establish and maintain optimum systems for dealing with disasters other than drought/famine and integrate these systems into normal ongoing development activities at national, district and local levels within the national resource capacity;

- Create a framework, which facilitates preparation of plans and Legislation for the effective implementation of disaster management and its legitimacy;
- Outline the responsibilities of different personnel at different levels in the implementation of the disaster management programme;
- Ensure that disaster management policy is consistent with policies from other sectors and the objectives of the NDP.

1.4 DISASTER MANAGEMENT CYCLE

NDMO efforts of formulation of national disaster management system and coordination are sustained through a disaster cycle. The Disaster Management Cycle shows set of activities that should be undertaken in the pre disaster phase (the period before a disaster occurs) and post disaster phase (the phase after a disaster has occurred). These are prevention, mitigation, preparedness, response and recovery. For a proactive and effective disaster management programme, focus should be on the pre disaster phase. (See **Appendix I**)

1.5 NATIONAL DISASTER MANAGEMENT OPERATIONAL STRUCTURES

The primary focus of disaster management structures (National, District and Village level) is to ensure high state of preparedness in order to provide appropriate and timely assistance to communities affected by a disaster. (See **Appendix II**)

The overall national responsibility for disaster management rests with the Office of the President (OP) through the NDMO. There are three levels through which OP coordinates disasters in the country; each level develops its own operational logistics. The levels are as follows:

1.5.1 National Level

(a) **The National Committee on Disaster Management (NCDM)**

The National Committee on Disaster Management (NCDM), the then National Committee on Disaster Preparedness was established in 1992. Deputy Permanent Secretary for

Development in the Office of the President chairs the Committee. The Committee consists of Deputy Permanent Secretaries from 11 line Ministries together with representatives from Botswana Police Service, Botswana Defence Force (BDF), United Nations Development Programme (UNDP) and Botswana Red Cross Society. (See **Appendix III**) It is the principal policy formulating and coordinating body on disaster management. The primary role of the Committee is to develop strategies for disaster management in the country and oversee implementation of disaster plans and activities.

(b) **The National Disaster Management Technical Committee (NDMTC)**

National Disaster Management Technical Committee (NDMTC), composed of professionals and experts in different disciplines was established. The Permanent Secretary appoints the NDMTC. The Director of NDMO chairs the Committee. The membership of the Committee was drawn from technical departments like Geological Services, Meteorological Service, Department of Animal Health, Ministry of Health, BPS, BDF, private sector and Government Media. The mandate of the Committee is to advise the NCDM on all technical matters pertaining to disaster management issues.

The primary role of the Committee is to provide technical advice to both NCDM and NDMO on disaster management issues.

The functions of the committee are:

- To advise NDMO and the National Committee on Disaster Management on all disaster operations issues and activities;
- To participate in emergency operations activities during a state of disaster-induced emergency, including staffing the Emergency Operations Centre (EOC) when activated;

- To review the national disaster management plan and recommend any changes or amendments to the NCDM;
- To advise NDMO on the preparation of guidelines for sectoral and district disaster management plans;
- To recommend to Ministries, mitigation programmes to be integrated into development programmes and to monitor their implementation; and
- To assist in training and capacity building.

(c) Technical Sub-Committees

The NDMTC may establish permanent or ad hoc sub committees as it sees necessary to advise on some specific issues such as Logistics and Operations, Food and Nutrition, Health, Training and Capacity Building, Agriculture, Environment, Civil Engineering and any other groups. It is the responsibility of NDMTC to draw up Terms of Reference (TOR) and identify membership with the appropriate expertise, for the proposed sub committees.

1.5.2 District Level

District Disaster Management Committee

The basic disaster management organization at the districts consists of the District Commissioners (DCs), Council Secretaries (CSs), and representatives from the central government, NGOs and Dikgosi. Responsibilities of the District Disaster Management Committees are to provide guidance and policy advice on disaster mitigation, preparedness, response and recovery matters in the district. The DDMCs are responsible for emergency and disaster response decision-making within the district. Functions of the Committee are as follows:

- Develop Contingency Plans to the anticipated threats;
- Provide an overview of disaster management programmes and priorities for the particular jurisdictional area;
- Undertake disaster assessment during time of the disaster and man the Emergency Operations Centre when activated;
- Prepare the multi-sectoral district disaster preparedness plans for specific hazards that the district is vulnerable to;
- Participate in providing emergency assistance to disaster victims in the local jurisdictional areas during emergency;
- Act as a link between NDMO and communities on national disaster management objectives and community needs and priorities;
- Identify equipment and transport available in the village that could be used in case of disasters;
- Outline and define command and control structures for emergency response;
- Identify a place to be used as an EOC;
- Raise level of public awareness to prevent or reduce the impact of a disaster; and
- Utilize early warning information to help communities to minimise the impact of a disaster;

1.5.3 Sub-District Level

At Sub-District level, the District Officer is responsible for emergency and disaster management activities. As far as possible, sub-district plans, and programmes should embrace the National Policy on Disaster Management and integrate disaster risk reduction measures. The Committee provides guidance and policy advice in relation to disaster mitigation, preparedness, response and recovery in the Sub-District.

During response operations a location for coordination of operational activities is identified and contact details passed to the DDMC and the BPS. When the response to a major emergency or disaster is beyond the capability of Sub-District resources, assistance is sought from the DDMC.

1.5.4 Village Level

At the village level, the responsibility of disaster management rests with the traditional leaders and organised groups identified by each DDMCs and NGOs that may be within that particular locality.

(a) Village Disaster Management Committee

The following are functions of the Committee:

- Identify areas vulnerable to disasters, like flood, fire outbreaks, diseases outbreak, etc;
- Save lives and livelihoods and reduce damage to property and infrastructure;
- Ensure effective, and timely assistance to people affected;
- Identify places that could be used as evacuation areas when there is a disaster;
- Sensitize the public on disaster management issues;
- Identify means of communication in case of emergency;

1.6 FINANCES

National Disaster Relief Order

The National Disaster Relief Order was established in 1996 to provide financial assistance to natural disaster victims. The monies paid into the fund are funds as may be appropriated by Parliament, donations from persons and organizations and other contributions to the fund.

The fund is used to procure relief supplies to meet the basic needs of disaster victims. The following table indicates warranted provisions,

donations from international organizations, expenditure and balances for the financial years 1999/2000 – 2004/2005:

TABLE 1: NATIONAL DISASTER RELIEF FUND

Financial Year	Warranted Provision	Donations	Interest	Balance b/fwd	Expenditure	Balance Available
1999/2000	5,000,000	3,290,639	0	1,755,700	4,119,816	5,926,314
2000/2001	3,000,000	250,524	118,792	5,926,553	6,203,221	3,092,126
2001/2002	3,000,000	3,002,000	151,926	3,092,648	5,025,685	4,220,963
2002/2003	3,000,000	26,163	278,812	4,220,889	26,382	7,499,400
2003/2004	5,000,000	10,000	552,796	7,499,483	3,883	13,058,094
2004/2005	4,280,680		847,567	13,058,396	53,333	18,133,710

Sources: Votes Ledgers (Office of the President – Finance Unit)

CHAPTER 2

2.0 AUDIT DESIGN

2.1 MOTIVATION

Office of the Auditor General (OAG) management motivated an audit of the disaster management because it was considered one of the critical issues. In addition, Botswana was vulnerable to the following actual/potential disasters: drought, floods, and animal diseases. These adversely affected human lives, livestock, habitat, infrastructure and disrupted social and economic development. Following the 1999 – 2000 flood disaster a number of observations were made that prompted an audit of the NDMO. Some observations, among others, included the construction of infrastructure in the disaster prone areas and the non-integration of disaster management into the planning processes. Damages caused by floods in 1999 – 2000 were estimated at P1.1 billion.

OAG carried out an audit in order to find out if the structures at national and district levels had adequate capacity to proactively respond to any disasters that may occur.

2.2 SCOPE AND LIMITATIONS

2.2.1 Scope and Objective of the Study

The audit focused on the following:

- (i) Structures in place at national and district levels, whether there was adequate capacity to proactively respond to any disaster that may occur; and
- (ii) Whether disaster management was integrated into Government planning processes.

The objective of the audit was to find out whether disaster management structures existed and were working efficiently to deliver the National Policy on Disaster Management.

2.2.2 Time and Geographical Limitations

The audit covered four financial years from 2001/2002 to 2004/2005. 9 out of 28 (32%) districts were visited. These are Gaborone, Kanye, Lobatse, Mochudi, Mabutsane, Maun,

Molepolole, Ramotswa and Tlokweng. The audit could not cover 100% DDMCs due to financial constraints

2.3 METHODS OF DATA COLLECTION

The audit was based on document review, interviews and questionnaires:

2.3.1 Document Review

Most of the information was collected from the following documents:

- National Development Plan 8 and 9
- National Policy on Disaster Management,
- Finance and Audit Act
- Consultants Report of 1994
- Annual Performance Plan (30/6/04,10/1/05, 31/3/05)
- Annual Progress Report (30/9/04,)
- Strengthening of the National Disaster Management Structures and Mechanisms (July 1994)
- Job Descriptions
- Files

The purpose of document review was to gather more information about the organization, the structures, guidelines and regulations in place to implement the disaster management programme.

2.3.2 Interviews

Twenty-five (25) interviews were conducted with the management, staff at national and district levels. The interviews were conducted to understand the operations of the NDMO and implementing structures and to find out problems encountered by the organization and solicit suggestions for improvement. The following officers were interviewed:

- Deputy Permanent Secretary (Development)-OP
- Director -NDMO
- Operations, Control and Coordination Officer-NDMO
- Logistics and Communications Officer-NDMO
- Principal Finance Officer (OP)
- District Commissioner - Gaborone
- District Commissioner - Kanye

- District Commissioner – Maun
- District Commissioner – Mochudi
- District Officer – Tlokweng
- District Officer – Ramotswa
- District Officer – Lobatse
- District Officer – Mabutsane
- District Officer – Molepolole
- District Officer (Development) - Maun;
- Council Secretary - Maun
- 9 Supplies Officers of the visited areas

2.3.3 Questionnaires

50 questionnaires were distributed to members of NCDM, NDMTC and the Chairpersons of DDMCs and 24 (48%) were responded to. The questionnaires were developed to establish whether the disaster management structures at district level are operational and proactive enough to counter disaster risks within their areas of jurisdiction so much that the concept of disaster management forms the integral part of the developmental goals succinctly outlined in the urban/district development plans.

CHAPTER 3

3.0 COMPONENTS OF RESPONSE

3.1 INCIDENT OR EMERGENCY

When an incident occurs, an Incident Commander reports the incident to the District Emergency Coordinator (District Commissioner). The DC in consultation with the NDMO declares the state of emergency. Then a District Emergency Operations Centre is activated if it is a localized disaster. However, if it is a national disaster the National Emergency Coordinator (Director – NDMO) in consultation with the NCDM recommends that the Minister for Presidential Affairs and Public Administration should advise the President to declare a state of emergency and immediately activates the National Emergency Operations Centre (NEOC). The prompt action and decision of the NEOC is facilitated by the readily available database of contacts of all the members of the NCDM such as cell phone, telephone and fax numbers, and emails. The NCDM with the assistance of the NDMTC operate the EOC on a 24-hour basis.

3.2 EMERGENCY OPERATIONS CENTRE (EOC)

Emergency Operations Centre provides a central location where government can ensure effective interdepartmental and or inter agency administration and the making of decision for managing disaster response and recovery.

The location of the EOC is critical in that it must:

- Provide centralised control and direction
- Facilitate long-term operation
- Increase continuity
- Provide ready access to all available information
- Simplify information verification
- Aid resource identification and use

At the district level, members of the DDMCs staff the EOC, while at the national level; the members of NCDM assisted by members of the NDMTC staff the EOC.

At the national level, the EOC is known as the National Emergency Operations Centre (NEOC). It should nevertheless be noted that the activation of EOC for the prompt and calculated response strategies depends on the magnitude of disaster, whether it is an isolated local disaster, or a local disaster with national implications, or an all out national disaster. The later two (2) scenarios may require the activation of the NEOC. NEOC operates on 24 hours basis during the duration of the emergency operations. It is manned by the NDMO through the NCDM assisted by NDMTC on eight (8) hours shifts.

During the disaster response phase, dissemination of information will flow from the scene of the incident (this is referred to as the establishment of the ICS) to EOC and to the President as follows: IC, DEC, NEC and the President. When the emergency operations are initiated, the Director of NDMO will assume control as the National Emergency Coordinator (NEC). The NDMO will exercise this command in close cooperation with the National Emergency Task Force (NETF), a committee of the NCDM chaired by the Deputy PS (Development) responsible for Disaster Management. The President will be fully informed by the Minister of Presidential Affairs and Public Administration.

The line Ministries fully inform the EOC on damage to assets under their jurisdiction and response, recovery and mitigation measures to minimise the impact and vulnerability to future threats. For instance Ministry of Works and Transport provide EOC with initial report on the extent of damage to infrastructure facilities, properties and major installations within 48 hours from the time of disaster and thereafter, continuously updates, as information becomes available. It also maintains emergency alert in all districts and regular contact with DEOC on related matters.

At the district level, districts have responsibilities for emergency operations and uses all available resources including those of the private sector and voluntary organizations. The DC is in charge of command operation as the District Emergency Operations Coordinator (DEOC).

District Commissioner notifies the NDMO on the occurrences of a disaster. DC, in consultation with NDMO, declares a local state of emergency in order to activate the emergency response machinery. If local capacities are exceeded, aid may be requested from other districts or NDMO. The DC reports to NDMO on the state of disasters on the ground and thereafter proposes measures that are deemed adequate to address the situation. NDMO then coordinates the

response through the engagement of relevant sectors such as BDF, BPS, Fire Brigades by pooling and redirecting resources where they are most needed.

This being vertical response. However, if the required response is within the capacity of district-to-district partnership then the resources are pooled from one district to the next. This is horizontal response. DDMC maintains continuous contact with the NDMO throughout emergency period.

After disasters, DDMC are expected to report on the severity, magnitude and impact of damages to NDMO. Depending on the nature, magnitude and severity of the emergency/disaster, the NDMO will take action to identify requirements, mobilize and deploy state and volunteer resources to affected areas to assist district in their response efforts. If emergency exceeds both local and national resources, Government may seek aid from other countries.

Notification may be done through various modes of communication, that is, telephone, facsimile, e-mail and engaging a messenger to deliver the note.

A directory of key agencies and personnel is compiled, that is, NDMO, Emergency Support Functions (ESFs) Agencies and all Disaster Management Committees. The personnel is accessible 24 hours a day. During the disaster response phase, dissemination of information flows from the scene of the incident, to EOC and to the President (from Incident Commander to District Emergency Coordinator, National Emergency Coordinator and President). The ESFs Agencies should act promptly to determine the impact of the emergency and the need for their resources. They identify, mobilize and deploy resources to support activities in the affected area.

A notification cancellation is issued to indicate that no further action is required or that notification is being terminated, either because the anticipated emergency did not occur or that the actual incident has been controlled.

After disaster, DDMCs prepare a report to NDMO after establishing the extent of damage inflicted on infrastructure; people or animals. If the extent of damage is such that it is national proportion NDMO prepares a report for the President. Feedback through reports is given in order to assess the effectiveness of operational abilities, or how well, effectively and timely the necessary emergency operation functioned. It is also

given as lessons learnt that could be used in improving disaster management strategies.

3.3 DECLARATION OF STATE OF DISASTER

“If any disaster in any area is of such a nature and extent that exceptional measures are necessary to assist and protect residents of that area, the President may declare that with effect from a date specified by him in such declaration, a state of disaster exists within the area defined in such declaration and such declaration shall be published in the Government Gazette. The declaration of a state of disaster shall remain in force for a specific period as set out in the declaration and may be extended accordingly.”

3.4 INCIDENT COMMAND SYSTEM

The Incident Command System (ICS) is used to manage emergency or disaster response operations. ICS is responsible for the on the scene response activities.

An Incident Command Post (ICP) is established on a safe spot within the vicinity of the event, where all operations are directed and coordinated by the Incident Commander (IC). The IC heads the ICP management team. It comprises of senior representatives of the various Incident Response Teams (IRTs) who know their organizations' resources and have the authority to commit those resources to emergency response.

CHAPTER 4

4. FINDINGS

This chapter of the report presents the findings that OAG observed from the audit. The findings are as follows:

4.1 NATIONAL DISASTER MANAGEMENT LEGISLATION

The National Policy on Disaster Management (NPDM) provided for the framework for disaster management legislation, which would support the various facets of the disaster management. According to the NPDM the “legislation gives authority to the National Disaster Plan. Such legislation sets down requirements for disaster management in Botswana and cements the structures, mechanisms and relationships that are essential to make it function effectively. The disaster management legislation takes cognizance of aspects of disaster management contained in other legal instruments in order to avoid confusion and duplication.”

At the time of audit, the NDMO had not developed disaster management legislation as conceptualised in the NPDM. The significance of the legislation could not be underestimated given the legitimacy and authority that it would duly designate unto the Government bodies assigned emergency powers that were to be activated immediately following the declaration of a disaster. As such, the legitimacy of the NDMO on coordinating disaster management without all-encompassing umbrella legislation, lacked the authority to enforce disaster management measures on sectoral departments, private organizations, and communities. Hence there was nothing binding upon all the concerned. Therefore there was no enforcement because NDMO measures were not clothed with legal authority. The February 2004 Jao Flat Island and Xaxaba incident was a case in point that clearly gave thread bare indication of the weakness inherent in a non-legislative authority. The aforementioned settlements located in the Ngamiland District, were partially submerged as a result of the flooding of the Okavango River. According to End of Rainy Season Disaster Report October 2003 - March 2004, residents of these two islands resisted all efforts made to persuade them to evacuate to safer areas. The incident could have turned into a national crisis had the whole settlement been submerged into the Okavango floods after efforts to relocate them were without success.

The OAG therefore, came to the conclusion that the implementation of disaster management concepts by the NDMO or Government was constrained by non-legislative authority conferred on the Office of the President or the NDMO. Hence, the moral duty of the Government to carry out its mandate of saving lives and protecting property in all facets of disaster management was constrained.`

MANAGEMENT RESPONSE

Management agreed that there was no comprehensive disaster legislation and acknowledged that the existence of disaster legislation was of paramount importance; as it would legitimise the authority and enforcement of disaster management in a holistic manner. The Management stated that consultations would be made with all relevant authorities about the importance of developing such legislation, from which the disaster management programme in Botswana could derive its legislative authority. Moreover, they stated that while it was important that some sectors should have disaster related sectoral Acts there was need for comprehensive disaster legislation from the national level that would harmonise sectoral Acts. Furthermore Management stated that for securing public safety, the Constitution of Botswana Cap. 22:04 sets out emergency powers for the President, which could be invoked to deal with situations similar to that of Jao Flats and Xaxaba communities. .

4.2 GUIDELINES AND PROCEDURES

NDMO was tasked with the responsibility to develop and update the Disaster Management Guidelines and to formulate Standard Operating Procedures for emergency response and management. Guidelines and Procedures are essential in order to interpret and explain in detail what the legislation, and policy entail.

Guidelines would give directions to all stakeholders by *inter alia*: explicitly outlining the roles of stakeholders at individual, village, district and national levels. They would outline how the various agencies would respond to, and mitigate the impact of the emergencies.

On the other hand, procedures would outline the processes to be followed, how, where and when to act before, during and after disasters. They would also outline how disaster supplies or equipment should be distributed as well as the criteria for qualifying for the supplies and finally, the duration for use of disaster management equipment by victims. Such aspects as the monitoring, reporting, time frameworks and achievements as well as the evaluation of the

programme would form a major component of the Guidelines and Procedures.

Notwithstanding the above, a review of the files and in-depth analysis of data contained therein and interviews with the District Officers indicated to the contrary. Interview with DDMCs revealed that there were no guidelines and procedures. The NDMO management corroborated this shortcoming. During the field survey it was observed that the response phase of disaster management lacked coherence and organisation because the stakeholders were not well appraised of their responsibilities. The designation of duties to individual ministries and other resource personnel were not as precisely outlined to mount calculated and speedy response. This was considered critical in undermining the wreckages that disasters could impart on the infrastructure and citizens alike.

The need for simplified legislative directions, if developed, for individual Ministries, Private Sector entities, DDMCs and Communities in the form of Guidelines and Procedures cannot be over emphasised given the benefits that could be achieved: organisation, speed and clarity of responsibilities for all disaster management stakeholders.

4.3 OPERATIONAL STRUCTURES

The NDMO is responsible for proactively formulating national disaster management systems and coordination across the disaster spectrum within the framework of the NPDM. This is to be executed through building partnership with other structures in developing disaster management programmes. The primary focus of disaster management structures (National, District and Village level) is to ensure disaster prevention, mitigation and preparedness. According to NPDM “the overall responsibility for disaster management rests with district Councils, represented by the Council Secretary, in partnership with the District Commissioners representing Government. Each district, has to have a multi-sectoral disaster management committee with the responsibility to oversee implementation.”

Notwithstanding the provisions made in the NPDM on the operationalisations of the disaster management structures, it emerged that the disaster management structures were marginally operational at national and district levels. This was only exceptional during the disaster-induced strikes or when disasters were looming. This was corroborated by UNDP Consultancy report of 15th September 2000 following the aftermath of the 1999/2000 floods. The consultancy

highlighted findings, which were congruent to the OAG's observations. The observations made by OAG were as follows:

- According to the District Commissioners and/or District Officers in Lobatse, Mabutsane, Ramotswa and Tlokweng, meetings were scheduled quarterly but not consistently convened as scheduled. The DDMCs were available for meetings whenever there were increased prospects for traditionally seasonal disasters like floods or after such disasters had already hit their areas of jurisdictions. The operationalisation of DDMC was therefore in doubt given this situation at the lowest level of government. This is because it was at these meetings where supposedly planning, problem solving, reporting and appropriate action were to be taken regarding disaster management matters.

On a more positive side, Gaborone District Committees appeared more committed to disaster management as part of their developmental *sine qua non*. Documented information and a series of interviews with the resource persons within the District Commissioner's office, justified this view. Through well-established eight (8) Area-Technical Committees across the Capital City, that met on a two-month interval annually, issues of concern and areas of discussion were brought under the spotlight and where necessary duly referred to the main Committee, the Gaborone District Disaster Management Committee (GDDMC). In 2004, the meetings were held in January, March, July, September and November.

Leadership and commitment displayed by the Botswana Police Service in this regard cannot be overemphasised. Station Commanders as the chairpersons in their areas of jurisdiction were instrumental in the sustained operation of the area committees. A mechanism put in place to ensure that the area-committees attended the GDDMC meetings facilitated the flow of information between the technical and main committees through knowledge sharing which is the essence of existence of disaster management committees.

For these reasons, the effectiveness of the Gaborone DDMC had been directly linked to the active technical committees, which fed relevant information into its policy repertoires for informed undertakings. Technical Committees were not available in other districts, and this might have contributed to lack of meetings in those areas.

INTEGRATION OF DISASTER MANAGEMENT INTO DEVELOPMENT PROCESSES

The NPDM clearly stated that disaster management was to be integrated into development processes. The major prerequisite of the approach was to ensure that development projects and programmes were assessed for disaster impact and that where necessary, strategies aimed at reducing the vulnerability of population to various disasters be built into the development processes over time. Therefore, Ministries and Departments were to integrate disaster management into their development plans by considering possible disaster effects on their planned projects and come up with contingency measures that would completely prevent man-made disasters, mitigate natural disasters by assessing the vulnerability of the area, people, physical infrastructure to loss, injury/damage and assessing the level of exposure to risk through risk hazards, assessment and vulnerability analysis. In this regard, OAG acknowledges that some Sectoral Ministries/Departments have integrated disaster management in their planning process. A number of disaster prevention strategies had been developed to guide and control various development initiatives countrywide. Sectoral Ministries were assigned responsibilities to be actively involved in the prevention, mitigation and response phases at most. The Ministry of Agriculture (MoA) through the Department of Animal Health and Production (DAHP) zoned the country into cordoned fences to prevent and control the spread of animal diseases such as foot and mouth. Urban Development Standards in urban areas controlled the development of residential standards to meet the urban status standards, Building Regulations and Land Use Plans were as well instrumental in setting standards for infrastructural developments and how to best utilize land in a friendly manner respectively. These were all meant to integrate potential disasters in the development processes at all levels of Government. However, the implementation of these strategies was not without discrepancies at the monitoring stage given rapid urbanisation that took place in the past 2 decades.

- 4.4.1 OAG observed that the Sectoral Departments and District Councils partly integrated disaster management into their planning processes, more especially, in the development of their infrastructure. Contingency plans, which were to be used, as risk management strategies that would be devised to identify, assess and analyse various risks and making strategies to contain them were not developed. Response plans to outline specific hazards and their probability of

occurrences at the implementation level of disaster management (district level), were also not developed. This thwarted efforts towards an effective risk management strategy as a starting point to a disaster management integrated development strategy.

The results of this state of affairs were evidenced by:

- Lack of codified information on potential hazards within regions that could be catered for in the developments efforts;

Mitigation measures were not developed to reduce the impacts of disasters. For example, structural engineering measures such as in the construction of both residential buildings and urban internal roads in the flood prone areas were at risk of being flooded. For instance in 2004, Mohembo-Beetsha Road, a gateway to almost all villages was partially submerged in water putting the villages across the river at risk of being inaccessible by road. The Mohembo Water Treatment Plant located near the road was also under threat of being flooded. If they submerged, the water would have destroyed the electric pumps. Poor sewage and drainage systems in primary and secondary roads more especially within the urban areas where almost the entire road networks were exposed to flood hazards, in the process creating flood disasters. The awareness of risk management as part of the development planning among regional planners was inadequate. This conclusion was reached following the breach of land-use planning at national level and the negligible integration of potential disasters in the allocation of land for residential purposes in a considerable number of districts by the Land Boards (and/or other authorities entrusted with land allocation). The Department of Lands and Land Boards in general allocated plots on flood disaster prone areas for instance in Gaborone (Block 5 – BHC Houses), and Mochudi (Raserura Ward).

- NDMO indicated that last year the country witnessed urban fires in some districts, which indicate that the safety measures should be enhanced. In addition, Fire experts indicated that even Government enclave was vulnerable to fire hazards. According to the Gaborone

Urban Development Plan 2 (2003-2009), "a medium fire in any of these areas will result in great loss of property and even lives, as there was inadequate flow and pressure of water".

Internationally the rate of flow of water was supposed to +/-11000 litres per minute for a period of six hours, whilst Water Utilities Corporation (WUC) was only providing +/-1/3 of the minimum requirements. This was against a stipulation made to provide water on its mains considered adequate to extinguish fires within the planning area.

4.4.2 Secondly, it is important to note that disaster management was not wholly integrated into development planning and processes with the exception of Ministry of Agriculture as indicated above. Some sectors are still lagging behind especially in the area of the infrastructure, yet there are notable efforts that had been made. It is therefore OAG's view that the integration of disaster management into Botswana's development process was at basic level and as such more effort was needed to actualise these well-conceived measures.

OAG observed that NDMTC did not carry out its mandate of ensuring that disaster management was integrated into planning processes. Failure to carryout its functions resulted in buildings and roads such as a petrol filling station at the Gaborone Village, the Molapo Crossing Shopping Complex (Gaborone), the Mochudi – Gaborone Highway (Sebele) and Segoditshane Road in Broadhurst being constructed in flood prone areas, thus posing serious threat to the safety and security of infrastructure and the citizens. This it had by far not come close to achieving due to a number of factors that are discussed later on, such as lack of capacity to direct disaster management, inadequate training on the subject matter as well as limited financial and manpower resources.

4.5 NATIONAL DISASTER MANAGEMENT PLAN

According to the Policy, the National Disaster Management Plan (NDMP) would provide the framework for a coordinated and proactive set of actions of various stakeholders more especially the Government ministries and departments. The NDMP would outline the responsibilities of all Ministries and Departments, CBOs, NGOs, private sector and all other stakeholders in the

socio-economic, political and environmental affairs of the country.

NPDM stated that the National Disaster Management Plan (NDMP) would guide all levels of society in disaster management and mitigation. The plan would indicate the mechanisms by which the disaster mitigation activities would be incorporated into development planning and outline the management structures by which mitigation activities would be implemented, coordinated and facilitated.

However, OAG observed that NDMO had been slow in developing the NDMP as it was still in a draft form since 2004, which meant that NDMO had been operational for the last 7 years without a plan. OAG also observed that there were no District, Town and City Disaster Plans, which would reflect specific implementation requirements at different levels. However, Gaborone DDMC developed the Risk Management Master Plan (RMMP) while the South East District had prepared a Draft District Disaster Management Plan (undated). In the same vein, Mabutsane Sub District had a Draft Contingency Plan dated 9th August 2005. The plans if formalized, would cater for amongst others, veld fires and floods that are most common hazards in the districts. The absence of a Disaster Management Plan at national level had a trickling down effect on the districts. Districts did not have a framework of reference through which to base their Plans on in the form of the National Disaster Plans. Without these plans it would be difficult for the NDMO to control, organise, direct and coordinate the activities of the disaster management at national and district levels. It would also be difficult to measure the extent at which the mitigation and preparedness facets of disaster management had been incorporated into the development planning. In addition, the absence of the Disaster Management National Master Plan compromised the efficiency of the disaster structures to operate in a systematic manner. However, at the time of audit, NDMO sent Guidelines to DCs/DOs and sectors, for the formulation of the Contingency Plans.

MANAGEMENT RESPONSE

Disaster Management structures derive their authority from the NPDM. There are some sectoral Acts that legitimise authority of disaster management at that level. However, the existence of NDMP is important because it is a critical component of the disaster management framework

4.6 STRATEGIC PLANNING

Strategic Planning keeps the organisation focused. It provides a base from which progress could be measured and establishes a mechanism for informed change when needed. Strategic Planning increases productivity from increased efficiency and effectiveness and ensures most effective use of the organisation's resources by focusing the resources on the key priorities. It clearly defines the purpose of the organisation to establish realistic goals and objectives consistent with the mission in a defined timeframe within the organisation's capacity for implementation.

However, interviews with NDMO management and DDMCs revealed that there were no strategic plans in place for disaster management. This was confirmed by 13 of 28 (46%) questionnaires from DDMCs. The document review at NDMO revealed that the national strategic plan has been in a draft form since 2000. The absence of a strategic plan made it difficult to measure the performance of the organization and establish whether it was achieving its stated objectives and goals.

4.7 EMERGENCY OPERATIONS CENTRES

An Emergency Operation Centre (EOC) would provide a centralised management centre where Government could ensure an effective interdepartmental and/or interagency administration that facilitates policy making, coordinates and gives direction to a large-scale emergencies which include all the facets of disaster namely; preparedness, mitigation, response and recovery. As far as disaster management was concerned, decisions are as useful as the rationale behind them, in terms of the availability of systematically codified information (Management Information Systems) to guide and direct preventative measures before disasters occur and in the aftermath of disasters or response and relief measures. The role of the EOC would be effectuated only if the following conditions were met:

- Provide centralised control and direction;
- Facilitate long-term operation;
- Increase continuity;
Provide ready access to all available information;
- Simplify information verification;
- Aid resource identification and use

However, it emerged that the ideal EOCs as pronounced above were non-existent at both national and district levels to accommodate disaster personnel, equipment, facilities and database. As such, the Botswana Police Stations across the country became the best alternatives because they possessed some of the key features considered important for an EOC albeit with limitations that have implications for effective EOCs more especially at national level. For instance:

BPS's EOC is more of a response measure and does not include other disaster facets as indicated above;

BPS does not act as a repository of and conduit for information concerning disasters and disaster management.

Nevertheless, OAG also observed the following shortcomings as a result of the current arrangement:

- The availability of data on disasters across the country remained limited. In fact, the district disaster profiles were limited in content and technical in-depth to accordingly replenish the NDMO's information repertoires which was supposed to draw reliable information from the EOC's systematic Information Recording and Management Systems for prompt and informed decision-making before, during and after disaster strikes;
- National disaster profiles at Sectoral level also remained fragmented, accessible only to the relevant departments at the exclusion of the NDMO that was supposed to be hosting the National Emergency Operations Centre (NEOC) and coordinating disaster management as provided for in the National Policy on Disaster Management. As such, the coordinating role of the NDMO remained inadequate because of limited information at its disposal from the (policy implementers) ministries, departments and districts.

MANAGEMENT RESPONSE

EOC is a focal point for all decision-making and for all incoming and outgoing disaster information. NDMO and Districts do not have EOCs. In the meantime we rely on other stakeholders. However, we have plans to have them in place, and have started a project on the disaster

management system. We are currently working on a project to engage a consultant to develop the Statement of the User Requirements (SOUR). The System will help set up EOCs.

4.8 RESOURCES

4.8.1 Human Resources

(a) Capacity Building

Human resources is the nerve centre for any performance driven entity. Similarly, the capacity of the human resources within the NDMO to effectively discharge their duties in a timely and appropriate manner reflect positively for the capabilities to approach disaster management from a dimensional perspective of prevention, mitigation and preparedness, response and recovery, and development as conceptualised by the NPDM.

One way of building human resources capacity is through a customised and practical training regime geared to the core competencies of staff. This is but the first step to hands-on- job training. The crux of human resource capacity building is how it should be approached. Basically, the training structure should be effective enough to match the emerging challenges of disaster strikes. It was for this reason that, the NPDM proposed that the established training and educational institutions would through their existing curricula offer the necessary disaster management training with special emphasis on the acquisition of specific skills, particularly for those with sectoral responsibilities on disaster related activities.

The NPDM endorsed a comprehensive approach to disaster management preparedness strategy through a holistic utilisation of the available media-mode of communication, civil servants, district officials and village and community leaders to raise public awareness at all levels of society. Such a holistic approach to public awareness would be effectuated through the

use of the traditional fora for consultation, the *Kgotla* on issues of national and communal concern. In this way, the involvement of all stakeholders in the disaster management programme development and implementation would be facilitated whilst simultaneously building their capacity to be resilient to disasters. This would be one way of building a culture of prevention and preparedness through capacity building. Moreover, it would be through such public awareness initiatives that a self-reliant and sustainable nation as per the Vision 2016 goal of an informed, educated and prosperous nation would be the eventuality. The Vision document clearly states that Botswana must significantly enhance its preparedness as an integral part of ensuring the safety and security of the nation.

According to the NPDM, NDMO was to identify, develop and implement national public education and awareness programmes. The target audiences were to be all stakeholders such as, key officials and decision makers, NCDM, NDMTC, DDMCs, NGOs diplomatic and donors, community leaders and the public.

However, OAG observed that there were limited capacity building initiatives, if any, undertaken by the NDMO for stakeholders involved in disaster management. The level of understanding displayed at the implementation level (DDMCs) and by their (DCs/DOs and CCs) own admission, following discussions and interviews with OAG was therefore limited. Disaster management was basically interpreted as a two dimensional phenomena, confined to disaster response and relief. The disaster management strategies adopted by several DDMCs (e.g. Lobatse, Molepolole, Kanye, and Maun) perfectly represented a vivid picture of the response and relief focused disaster management strategies.

DDMCs through direct interviews and questionnaires were adamant that lack of or inadequate training was the root cause of one-

dimensional approach to disaster management. It was therefore, logical that the communities understood disaster management as the application of response and relief measures on the victims of disasters.

The consequences of inadequately trained executing authorities (DDMCs) had in turn hindered proper public education of disaster management because the need for workshops and seminars had been down-played (were less of a priority) at district level. This is a clear manifestation of incapacitated disaster management institutions within the implementing authorities at all levels. It is OAG's considered view that, from a broader perspective, little understanding of this concept has had undesirable repercussions that were evident at all levels of Government, more especially lack of basic infrastructure, such as necessary skills, equipment, manpower and technology. The following evidenced this:

4.8.1.1 Training

a) At National level

The discussion with NDMO management revealed that OP had developed a training plan for the financial years 2001/2002 – 2004/2005 (the period under review) for various departments including that of NDMO. The plan indicated that officers within the NDMO were to be sent for developmental courses or training for the duration ranging between 3 and 6 weeks within the region and overseas.

At the time of audit, 2 of 3 officers had already completed their training whilst the third officer was scheduled to go for a three-week training in January 2006. In addition, the officers were given on-the-job

training. According to the staff, the training already offered was inadequate to build their capacity, to effectively coordinate the disaster management activities. The officers were still not confident to diligently do their work and impart knowledge to DDMCs and other stakeholders.

MANAGEMENT RESPONSE

So far, 3 NDMO officers have been trained as per the 2003/04 to 2005/06 training plans. Disaster Management courses are of short duration.

(b) At District Level

1. District Disaster Management Committees

Training at district level as at national level was problematic. There were complex issues besieging efforts to integrate training of staff and stakeholders at DDMCs. The most contentious issue that was still to be resolved was the source of funds for disaster management training initiatives. This issue, chiefly, emanated from the persisting perception at district level that disaster management was outside the mandate of their duties and responsibilities except on voluntary basis or through centrally financed mechanisms. For this reason, the activities of disaster management were not budgeted for in the financial

years, including training or workshops and/or seminars.

Efforts made to amicably find the lasting solution to this outstanding issue, were hampered by the multiplicity of stakeholders or role players directly linked to this issue. This included, the Ministry of Local Government, which approves and allocates financial and policy related guidance to the District Councils as well as the Ministry of State President, which has the overall responsibility for disaster management countrywide.

OAG concludes that training initiatives had been held hostage by the failure of the District Councils and District Commissioners' offices to make budgetary considerations for disaster related issues as part of their core business, in the process undermining the appropriate implementation of this concept.

There are several ways of raising public awareness on disaster management issues. Some methodologies are suitable for confined and targeted groups while others are effective for raising public awareness on a mass scale. The latter could be cost-effective in Botswana through the use of public fora like the *Kgotla* meetings. In view of this, NDMO had devised several ways through which to convey the disaster management message to the nation.

Firstly, NDMO took part in the commemoration of the International Disaster Reduction Day (IDRD). The Division commemorated the IDRD for the first time in 2004/05 to sensitise the public about disaster management issues. Secondly, the Minister of State President read the speech in the early hours of the day (6 am) on Radio Botswana, sensitising the nation about disaster management. The use of the national radio station was intended to ensure nationwide coverage. Thirdly, NDMO bought a stall/slot at the Botswana International Trade Fair in 2004. Fourthly, NDMO has a slot in the "Botswana Daily News" every Monday for disaster management issues. This slot is to be utilised by all

stakeholders. Other than NDMO, the following departments have made invaluable contributions in this regard: Department of Meteorological Services, Ministry of Health, Ministry of Agriculture, Department of Water Affairs, Attorney General's Chambers and Gaborone City Council Fire Department.

However, the initiatives while well intended, had limitations. The OAG is of the view that the speeches appear to have not been given wider advertisement countrywide prior to the commemoration day, while the timing of the speech was considered to be a limitation in terms of the actual numbers of listeners as compared to the prospective listeners that were receptors of the live broadcast. In addition to that, the commemoration of the disaster reduction day in Gaborone, left out the ordinary citizens who are located outside the capital city. The Daily News also does not reach all the Communities.

The DDMCs who are custodians of disaster management at district and village levels, did not observe international practice, citing financial resources' constraints as a major impediment to commemorating the (IDRD).

At the time of audit, a solution to this anomaly had not been found. Data collected from files in districts visited and interviews, indicated that the level of the Communities' involvement in disaster management issues was at its lowest. Tribal leaders in contravention of the Herbage and Fire Act, which empowered them to take to task those who did not take part in disaster management activities, were encouraging the negative attitude of citizens who demanded payment in pursuance of their national responsibilities. Mabutsane residents stood out as the proponents for the remuneration of citizens who engaged themselves in fire-fighting brigades within their peripherals.

It is the ultimate position of OAG that much still needed to be done to bring public awareness to the desired levels countrywide if disaster management was to be taken serious by all stakeholders not excluding the ordinary person at the village. On the overall, it is clear that NDMO did not adequately fulfil its obligations of raising awareness, even within the government sectors given that:

- 8 out of 13 DCs representing 71.5% indicated that no workshops or seminars had been held in their

districts to sensitise the members of the DDMCs and the Community on disaster management. (OAG questionnaire finding).

The DDMC in Gaborone had on the other hand responded positively to the message. 110 out of 120 (91.3%) DDMC members (main and subcommittees) were trained on Disaster Risk Management and Emergency response in January and February 2004.

4.8.1.2 **Manpower**

NDMO had staff compliment of 4 including the Director. At the time of audit, one post had been vacant for 7 months. The duties and responsibilities of the post were thus shared between the 2 officers resulting in increased or additional workload for them. Staff limitations certainly constrained the NDMO to coordinate disaster activities countrywide more especially at district level. For instance NDMO could not frequently visit districts in order to observe and give feedback which may improve operational modalities of DDMCs. NDMO did not have district disaster specific officers at districts to ensure coordination of disaster management issues at district level.

Hence, OAG is of the view that, NDMO lacked capacity to fulfil its

expectations of coordinating disaster management activities countrywide. The department also lacked authority to influence the development paths assumed by the Government for a number of reasons referred to above.

4.8.2 Other Resources

4.8.2.1 Equipment and Supplies

One of the facets of disaster management is preparedness. According to NPDM all the stakeholders from a wide spectrum of society such as the Private Sector, Public Sector and Communities were expected to make available necessary equipments and supplies ready for use when the need arose. They were to maintain strategic reserves of essential commodities and equipment at national and district levels with which to mount immediate disaster response and relief whilst further national and international assistance was being mobilised.

For sustainability reasons, the NPDM had emphasised that where possible no additional resources were to be acquired in mounting response and relief measures, which is what preparedness is about. NDMO was therefore dependent on line Ministries, Departments and District Offices for financing of equipment and disaster activities relevant to their sectors. During disasters equipment was pooled from different Ministries and Department. For instance, Botswana Defence Force provided airplanes and boats whilst Botswana Police Services, Central Transport Organisation provided EOCs and transport respectively.

NDMO and its sister structures had played a leading role in the relief phase of disaster management, yet they were equally faced with logistical challenges which could compromise their capacity to respond with speed and vigour to the potential disaster. OAG found out during review of files at national and district levels that not all tents

were usable. Tents were either not complete (missing accessories), worn out or not collected from the victims after disasters. For instance, at NDMO warehouse, 44 bell, 430 cottage, 7 marquee and 2 tarpaulin tents were useable whilst all the 210 (100 %) bow tents did not have accessories, and 65 (23%) bow, 28 (6%) cottage and 6 (75%) tarpaulin tents were due for write off. In Ngamiland, 28 (41%) bow tents were usable, 40 (59%) bow and 36 (100%) cottage tents were worn out whilst 26 tents (not described) had not been collected from victims, At Mabutsane, 73 (65%) bell, 44 (58%) cottage and bow, and 6 (100%) marquee tents were usable, 40 (35%) bell, 32 (42%) cottage and bow tents were not usable. Mabutsane had a total of 195 tents out of which 123 (63%) were usable, 72 (37%) were not usable and 23 (12%) had not been returned from victims, 3 fire beaters and 2 motorised fire-fighting machines were also not usable. OAG found out from review of files that equipments were unsuitable for the purpose they were used for. For instance, in Mabutsane the motorised fire fighting machines, which were suitable for use along tarred roads, turned out to be used on roads that were not tarred. As such the machines were in a bad repair and maintenance state. (See **Appendix IV**)

An indication is that with tents worn out, not collected from victims and equipment not repaired it meant that NDMO or DDMCs would not be prepared to respond should disaster strike.

It is OAG's view that NDMO takes into consideration incorporating its resource requirements into its planning process to enable them:

- to measure the adequacy of the available resources
- to replace worn out and lost equipment and maintain those available.

This will ensure that the resources are available at any given time and are allocated in the most efficient manner.

4.8.2.2 Database

One of the objectives of NDMO was to create and maintain an efficient information network nationwide by establishing a comprehensive database for disaster management. The NPDM also requires the coordinated database to be developed to enhance its ability to monitor and control the disaster management process. The database would provide corporate (national) information on all the resources of disaster throughout the country. The information would entail, among others, types of disasters by districts, history/frequencies of the occurrences of disasters by districts, the impact magnitude of disasters, update on the supplies inventory, status of equipment, and stock levels. As such it was the responsibility of NDMO to ensure that parties specific to disaster management were providing compatible and comparable data that will allow assessment of disaster management programme.

OAG observed that NDMO had inadequate and therefore unreliable database due to information not forthcoming from the districts. This reflected badly on the level of prevention and preparedness of the NDMO to respond efficiently to national disasters. NDMO would benefit from a database that would allow them to record and maintain easily accessible information on the existence of property and commodities earmarked for disaster. Lack of appropriate database (information system) was an impediment to the determination of the resources required by NDMO. Consequently, the absence of appropriate database has constrained the effective management of the sustainability elements of disaster preparedness. As a result, the preparedness principle would be defeated.

Moreover the role of the NDMO in the preparedness, response and relief stages of disaster management failed to strike a balance

between the resource requirements and their supply at district level because there was no reliable basis (historical occurrences and the magnitude of disasters like floods) upon which to provide the 'approximately right quantities of relief measures in terms of material and equipment requirements as well as the requisite personnel. This resulted in the oversupply of equipment in other districts whilst others were without adequate supply. Documented information indicated that in Lobatse district there were 237 textile materials that had been lying unused since 2000. In addition, the absence of electronic database resulted in lack of control over maintenance of consumable supplies. Review of files revealed that food relief was allowed to overstay their lifespan. For instance, 28 x 410g tomato paste, 72 x 350g Medammes, 8 x 50kg Tsabana and 39 x 50kg corn bags were condemned from consumption in Mabutsane in 2002. The evident implication of this state of affairs, was that during the audit it was observed that there were blankets and African attire which remained during 2000 floods in Maun. There were 3 bales of blankets and 203 pieces of African Attire print in the said district headquarters. **(See Appendix IV)**

Lack of electronic database resulted in oversupply of consumables in one area, which ended up not being distributed whilst there were other victims in other areas who could have benefited. For instance, according to NDMO District Disaster Relief Supplies Inventory, as at 25th July 2005, in Tshabong 20 litres of vegetable oil, Selebi Phikwe 30 x 20 litres general-purpose chemical had reached their expiry dates.

It was therefore evident, that without adequate database it would be difficult for NDMO to make informed decisions, in term of preventing, preparing, mitigating, responding to disasters promptly and relief during disasters. The non-availability of readily accessible information deterred effective interdepartmental and interagency coordination resulting in uninformed decision making for effective disaster

preparedness, prevention, mitigation, response and recovery.

OAG appreciates that NDMO is in the process of developing a database. A form has been designed and sent to DCs/DOs to enable them to collect uniform and consistent data for the database although the districts were slow to comply.

MANAGEMENT RESPONSE

A National Disaster Management database involves coming up with a system. We are therefore currently working on the project to engage a Consultant that will develop the Statement of User Requirements and recommend the appropriate system for NDMO.

4.9 INVENTORY MANAGEMENT

According to documents review, NDMO was to maintain an up-to-date inventory of all available resources countrywide (institutional facilities and equipment that can be called upon to respond to disasters). Resource management was necessary for ensuring that a complete inventory of available resources was known to decision makers and used appropriately. The equipment and supplies were to be safeguarded against theft, fraud, pilferage, fire, damage and deterioration. According to Supplies Regulations and Procedures (SRP) Government property was to be recorded in the appropriate stores ledger cards and stored safely. The inventories were to be updated whenever transactions (issue or receipt) took place. It had become a normal practice that the District Administration would, post the relief phase of disaster strikes, make a request from the NDMO, to dispense the remaining consumables to the Social and Community Development (S&CD). This was meant to ensure that the consumables were dispensed within the predetermined lifespan to avoid wastage.

However, according to interviews with Supplies Officers at Gaborone, Lobatse, Mabutsane, Maun, Ramotswa and Tlokweng items such as tents, toilets, water tanks, clothing and foodstuff were not recorded properly and kept safely in the warehouses. In Gaborone the DO stated that there was no storage facility. The equipment and supplies were kept at Mogoditshane Police Station and Roads

Department. In addition, the Storekeeper (GDDMC) revealed that the equipment and supplies were not recorded and therefore could not provide information pertaining to the inventory. Therefore, OAG could not reconcile the supplies in the warehouse against records, as these were not available to auditors. It was further revealed that there was no proper handing over between outgoing Supplies Officers and the incumbent officers. This was prevailing in all the districts visited, as no handing over notes were made available for audit.

In Mabutsane, files reviewed revealed that ledger cards did not reconcile with CIRVs. For instance, 14 packs for tents were in CIRV but not recorded in the stores ledger. Blankets (grey) were stated in CIRV as 100 and recorded in the stores ledger as 600. 98 tents bell, 2 tents bow and 20 kitchen utilities were not recorded in the ledger. Furthermore, 43 tents were not collected from the victims after disasters. It was observed during inspections of the warehouses that the tents and clothes were not properly arranged, as they were not packed neatly. However at the time of audit incumbent stores officer was arranging, packing tents and clothing as well as up dating the records. The absence of efficient records management and the fact that the items were not properly arranged, made it difficult for OAG to form an objective opinion on the status of the supplies.

A Storekeeper from NDMO compiled a report dated 8th February 2001, on the equipment and supplies, after a countrywide inspection tour. The report revealed that remaining supplies, which were not distributed to disaster victims, were kept in the warehouses. According to the report, in Mahalapye, Bobonong, Francistown, and Kasane some of these items had expired and subsequently it was recommended that they be destroyed. The supplies included 20 litres vegetable oil in Mabutsane and 30 by 20 litres general-purpose chemicals in Selebi Phikwe. Destruction of these items could have been avoided had they been distributed to S&CD before their expiry date for onward distribution to the needy.

It was observed that there were 203 pieces of African Attire print in Maun, which had been there since 2000. The attire was exposed to destruction by moth as it had been lying there for the last 5 years. Moreover, the movable toilets in all the areas visited and 3 water tanks in Maun were kept in an open area and were exposed to vandalism. This is a waste of scarce resources

MANAGEMENT RESPONSE

What happens is that Districts inform NDMO of unserviceable items in their warehouses with a request that the items be disposed off. NDMO would agree indicating that the destructions should be in accordance with Supplies Regulations.

4.10 COORDINATION, MONITORING AND REPORTING

4.10.1 Coordination and Monitoring

Different disaster management structures have been assigned their responsibilities as referred to at chapter 1. The NCDM as the principal policy formulating and coordinating body had been mandated the overall responsibility to supervise and play an advocacy role on disaster management activities at national level. On the other hand, the NDMO (or secretariat) was primarily to coordinate and to some extent (implicitly) monitor the disaster management's structures at national and district levels pertaining to the latter's assigned responsibilities. It is worth noting, though that, the NDMTC had been primarily mandated the responsibility to recommend mitigation programmes to be integrated into the development programmes. To ensure compliance to the recommended mitigation measures, the NDMTC was expected to monitor their implementation by the sectoral Ministries.

OAG made the following observations pertaining to the aforementioned responsibilities:

- NDMO's capacity was overstretched due to staff constraints and inadequate proficiency on the subject matter. Hence, the coordinating role of NDMO was limited to the requisitions of committees' meeting minutes from the district disaster management structures. The system had proved ineffective as a result of communication lapses between the DDMC and NDMO. In fact, the DDMC rarely communicated their Committee minutes to the NDMO because meetings were not held accordingly. As a result OAG concluded that NDMO was unable to effectively carryout its mandate in this regard.

The monitoring aspect of disaster management had not been explicitly expressed mainly because the National Disaster Management Plan and the Legislation were still to be developed. At the time of audit there was no documented information on the recommended mitigation measures or the monitoring of their integration in the completed projects. In addition, there were neither documented monitoring mechanisms at national nor district levels. The standard procedure was that the NDMTC would route their recommendations through the NDMO. This created more communication bottlenecks between NDMTC and other structures in place. It was therefore incomprehensible how this structure would monitor public organisations when it was confined only to a two-way relationship with the NDMO.

Furthermore, the NDMTC was expected to have created an enduring relationship with the sectoral Ministries through the sector specific ministerial focal persons. According to the NPDM, these competent and capable focal persons were to maintain a reliable and mutual relation between their Ministries and the NCDM. This was meant to ensure that Ministries were well informed of their responsibilities with regard to the disaster management. This far, OAG was not successful in identifying what the focal persons had really done. Nothing was recorded to substantiate what they had accomplished. NDMO was also adamant that the focal persons were still to perform their duties. In the final analysis, it was established that the NDMTC was inefficient in performing its assigned mandates. There is substantial evidence that is reported in this report with regard to the integration of disaster management. **(See paragraph 4.4)**

- The DDMCs were to furnish NDMO with progress on relief measures in the prescribed format. However, review of files disclosed that the monitoring of the disaster management issues by NDMO was weak and this was corroborated by the Consultants report, mentioned at paragraph 4.3.

Effective communication is essential in planning for and responding to disasters or emergency situations. Therefore, the establishment of clear and effective

communication networks at national and district levels is integral in ensuring that preparedness measures and response operation are properly coordinated. In this context, audit reviewed the communication structures and associated roles and responsibilities in place between various stakeholders in the disaster management and observed the following:

- At the time of audit, it was difficult for NDMO to coordinate and monitor implementation of disaster management because there was deficient communication between NDMO and DDMCs. This was evident from files review, because there was no regular correspondence to indicate the linkage between them. The correspondence was sporadic. There was no indication that the communication structure was communicated to all relevant stakeholders. The interviews with NDMO and DDMCs revealed that DDMCs did not communicate frequently. NDMO sought information regarding disaster profiles; contact addresses of the Committee members, and inventories within DDMCs jurisdictions DDMCs would not give feedback. The DDMCs did not feel compelled to respond because they contended that they were not under NDMO's control.

OAG learnt from the interviews with DDMCs that there was no Annual Schedule of Disaster Management Activities, which would indicate performance measures. Absence of such schedule rendered it difficult for NDMO to efficiently coordinate and monitor performance of the DDMCs, as it could not assess what the DDMCs achieved in a particular period.

There was need on the part of management to address this anomaly in order to coordinate activities at the districts to ensure that the programme was implemented efficiently.

4.10.2 Reporting

The reporting structure would entail information generation, management, sharing and transfer across wide spectrum of disaster management structures and systems. The structure

would facilitate effective flow of information between the national and district levels and in the process keeping them abreast of disaster development activities. For instance, all

stakeholders at national level would know what was being done at district level and would therefore be in a better position to control the activities and give advice where necessary. An efficient reporting structure would entail DDMCs reporting regularly to NDMO and NDMO preparing a consolidated report through OP for Parliament on the progress of the programme. The annual report would entail reports from all the districts regarding disaster management issues in their areas of jurisdictions. The purpose of the report would be to sensitise Parliament and the other stakeholders on the issues regarding disaster management in their areas.

However, OAG found out from review of documents and interviews that there were no established and standardised reporting mechanisms for disaster management related activities between the NDMO and DDMC. OAG also found out that there was limited or no reporting from districts to NDMO on disaster management activities. Consequently, the reports at national level were also not prepared by NDMO on disaster management activities. Moreover, there were also no reports prepared by NDMO through OP to Parliament to assure this consultative body that the programme had achieved its objectives as intended. Reports availed to NDMO by districts were on disasters prevailing at that time when there were disasters.

OAG is of the view that without an effective reporting structure it would be difficult for NDMO to keep track of DDMCs performance regarding implementation of disaster management. It would be difficult for NDMO to compile an Annual Report, which would sensitise the Parliament, and other stakeholders on disaster management activities. The DDMCs would not be able to benefit from the knowledge, ideas and experiences of other DDMCs.

11 EVALUATION

The programme evaluation is the feedback to both policy makers and operational staff as it assists decision makers to:

- Assess whether programme outcomes achieve stated objectives that is being effective.

- Ascertain whether there were better ways of achieving these objectives, that is being efficient

Evaluation also assists operational staff to measure their level of involvement to ensure their participation in the programme's success. However, OAG observed that the programme had never been evaluated since inception 10 years ago. The programme if evaluated, would assure Parliament and all other stakeholders that the programme achieved its stated objectives and that value for money had been achieved. It would also provide independent measure of accountability that would be used to assess its impact since inception. According to NDMO management the Policy had not been evaluated. Management felt that the Policy was still relevant and therefore did not need to evaluate it. There was no independent assurance that the programme was running efficiently and effectively and that it was appropriate in relation to the current Government policy, in absence of its evaluation. This defeated the public accountability requirement.

4.12 OVERALL CONCLUSION

The implementation of the disaster management programme was constrained by absence of Legislation from which the programme could derive its legislative authority. It was also constrained by absence of Guidelines and Procedures, which could guide Ministries, District and other stakeholders in interpreting the Policy and Procedures. Furthermore NDMO had not developed NDMP. The absence of a Disaster Management Plan at national level had a trickling down effect on the Districts, which resulted in the Districts not having a framework of reference. It was also impeded by lack of resources such as human, equipment and database. Monitoring was ineffective in that there was no monitoring mechanism for implementation of the programme including reporting and coordination.

Notwithstanding the above deficiencies and others mentioned in this report, OAG acknowledges that NDMO with the limited capacity and resources had managed to provide its best under the circumstances.

CHAPTER V

5. RECOMMENDATIONS

OAG came up with the following recommendations which if implemented could enable the NDMO improve its efficiency and effectiveness thus reducing the impact of disasters, sustain lives, livestock, habitat, infrastructure and lead to improved economy:

5.1 LEGISLATION

NDMO should ensure that legislation is developed to enforce disaster management measures on sectoral departments, private organizations and communities.

MANAGEMENT RESPONSE

Consultations are ongoing with OP authorities on this.

5.2 GUIDELINES AND PROCEDURES

NDMO should develop Guidelines and procedures to interpret and explain in detail what the legislation and policies entailed. Guidelines and procedures would give directions to all stakeholders and outline processes to be followed.

MANAGEMENT RESPONSE

NDMO has developed Guidelines for developing Contingency Plans and will continue to develop other documents.

5.3 OPERATIONAL STRUCTURES

- NDMO should ensure that all structures are operational in order to achieve the premise of being proactive.

NDMO should encourage DDMCs to convene meetings regularly so that committee members are knowledgeable about current issues regarding disaster management.

MANAGEMENT RESPONSE

NDMO would like to have all structures operational and this has been communicated to all structures. We would also appreciate guidance from OAG on how NDMO should go about this as NDMO has in the report been labeled as using a top-down approach.

5.4 INTEGRATION OF DISASTER MANAGEMENT INTO PROCESSES

- NDMO should encourage all stakeholders to integrate disaster management activities into planning processes.
- NDMO should also encourage all stakeholders to use their resources as much as possible in the implementation of disaster management as stipulated in the Policy

MANAGEMENT RESPONSE

NDMO is already working on these. Stakeholders are being continually urged to do so.

5.5 NATIONAL DISASTER MANAGEMENT PLAN

- NDMO should develop the NDMP and ensure that it is cascaded to districts (District Disaster Management Plans).
- NDMO should encourage Ministries and departments to develop contingency plans at national and district levels.
- NDMTC should be encouraged to review and update the plans annually and the review should be cascaded to district levels.

MANAGEMENT RESPONSE

It is still being developed and stakeholders will be consulted.

5.6 STRATEGIC PLANNING

NDMO should develop a Strategic Plan that would be cascaded to DDMCs in order to develop their own plans. The plans would ensure that NDMO and DDMCs remained focused in their disaster management activities.

5.7 EMERGENCY OPERATIONS CENTRE

NDMO should establish EOC at national level to achieve the objective of being proactive.

MANAGEMENT RESPONSE

The NDMO is having this in the pipeline.

5.8 RESOURCES

5.8.1 Human Resources

(a) Training

At National Level

- NDMO should ensure that the staff is adequately trained in order to enable them to perform their duties diligently and also to train other stakeholders at national and district levels.
- NDMO should also ensure that committee members (NCDM and NDMTC) are also sensitized on disaster management activities in order to enable them to sensitize other staff members in their respective ministries/offices.

At District Level

District Disaster Management Committees

- NDMO should ensure that a training plan for DDMCs and other stakeholders is designed and implemented to enhance the delivery of disaster management services.

- NDMO should encourage DDMCs to participate in mock drills to give them a touch of reality on disaster management. They should also be given specialized training on response mechanisms such as First Aid and other relevant training to equip them with effective skills on managing actual and potential disasters.

Public Awareness

- NDMO should ensure that public education and awareness is conducted at all levels.
- NDMO should also ensure that DDMCs are supporting the awareness programmes by identifying special requirement for their areas, disseminating materials, and conducting visits to ensure that the communities are familiar with the materials and are aware of preparedness measures to be taken.
- NDMO should encourage DDMCs to host International Commemoration Day countrywide. This will ensure the shift in emphasis from response and relief aspect of disaster management to prevention, mitigation and preparedness.

(b) **Manpower**

NDMO should ensure that the capacity of staff is strengthened and improved in order for the department to achieve its mandated activities

MANAGEMENT RESPONSE

NDMO would continue to improve capacity through training, attending and organising workshops and information sharing. All Disaster Management Committees will be continually sensitised on the need to integrate disaster risk reduction measures in their

operations, as surely, this is the only way to reduce both occurrences and impacts of disasters. NDMO will work on an intensified IEPA Programme.

5.8.2 Other Resources

5.8.2.1 Equipment and Supplies

- NDMO should ensure that essential equipment and supplies are availed by all stakeholders (governmental and non-governmental organisations, ordinary citizens) for distribution to disaster victims at national and district levels.
- NDMO should also ensure that the equipment and supplies are available, complete and in good state for consumption or use for preparedness, response and relief purposes

5.8.1.2 Database

NDMO should develop a comprehensive database to enhance its ability to monitor and coordinate all the facets of the disaster management process.

MANAGEMENT RESPONSE

NDMO would continue to urge Districts to provide and update information on resources in their respective Districts.

5.9 INVENTORY MANAGEMENT

- NDMO should ensure that DDMCs keep and maintain up-to-date records of relief supplies and equipment of all available resources countrywide (institutional facilities and equipment that can be used to respond to disasters).

NDMO should also ensure that the equipment and supplies are safeguarded to avoid pilferage and theft.

- NDMO should encourage DDMCs to declare remaining supplies after disasters to enable prompt distribution of supplies to S&CD so that they are redistributed to the needy before they expire to avoid wastage.
- NDMO should encourage DDMCs to ensure that proper handing over is conducted between officers.

5.10 COORDINATION, MONITORING AND REPORTING

- NDMO should devise mechanisms that will enable it to efficiently coordinate and monitor performance of the DDMCs, and to also assess what the DDMCs achieved in a particular period.
- NDMO should develop a suitable balanced output measurement framework, which will address quantitative and qualitative aspects of performance to enable NDMO to better monitor standards of implementation of disaster management.
- NDMO should prepare a schedule of visit to districts and should sit in any of their meetings to assess their progress in implementing the policy. The following should be implemented to ensure that the programme is coordinated and monitored efficiently:

5.10.1 Coordination and Monitoring

- NDMO should ensure that all disaster management structures, especially the NCDM as the principal policy formulating and coordinating body, carry out their mandated responsibility of coordinating disaster management activities.
- NDMO should ensure that NDMTC monitor sectoral ministries in the implementation of mitigation measures integrated into development programmes.

- NDMO should devise a mechanism that will enable it to monitor the operations of DDMCs. The mechanism should be documented and communicated to stakeholders at national and district levels.
- NDMO should make periodical tours countrywide to establish the state of disaster management at district level through assessments of the DDMC structures. In the process NDMO would appreciate and attempt to attend to the problems besieging DDMC.
- NDMO should ensure efficient/regular communication between NDMO and DDMCs to enhance monitoring. The communication network should be communicated to stakeholders involved.

5.10.2 Reporting

NDMO should develop mechanism that will ensure that:

- All DDMCs report disaster management activities regularly; and
- NDMO prepare Annual reports for Parliament and all other stakeholders on the progress of the programme.

NDMO should encourage Ministries through NDMTC and DDMCs to report on regular basis in order to assess the progress at national and district levels and to strengthen the day-to-day supervision of disaster management operations.

NDMO should ensure that the effectiveness of communication links with field agencies is reviewed periodically. NDMO should also ensure that DDMCs closely interact amongst themselves (district to district) and with different implementation agencies as well as furnish information regularly to NDMO on the disaster management activities.

MANAGEMENT RESPONSE

NDMO would continue to work closely with stakeholders and develop requisite structures and procedures to achieve this.

5.11 EVALUATION OF THE PROGRAMME

NDMO should evaluate the programme in order to assure Parliament and all other stakeholders that it has achieved its objectives. NDMO should also evaluate the disaster management programme in order to assess its impact since its inception in 1996.

NDMO should ensure that the programme is evaluated to assess its effectiveness in achieving its stated goals and objectives. The programme should also be evaluated to assess its overall impact on the society.

MANAGEMENT RESPONSE

NDMO was already working on most issues raised in the recommendations.

Appendix I

DISASTER MANAGEMENT CYCLE

Mitigation: refers to plans, strategies and actions taken to reduce a population's vulnerability to a future disaster threat. It can be directed towards the hazard, the vulnerable population or both.

Prevention: refers to measures taken to prevent natural or human induced phenomena from giving rise to or causing disasters or other emergency situations.

Preparedness: refers to plans, procedures and actions taken to ensure an effective response to a future disaster strike.

Response: refers to actual operations and actions taken immediately after a disaster has struck to provide assistance and support to the stricken population and area.

Recovery: refers to actions taken immediately following the provision of life sustaining assistance first, to return the stricken area and population to normal and second, to phase in mitigation activity to allow for better protection for the future.

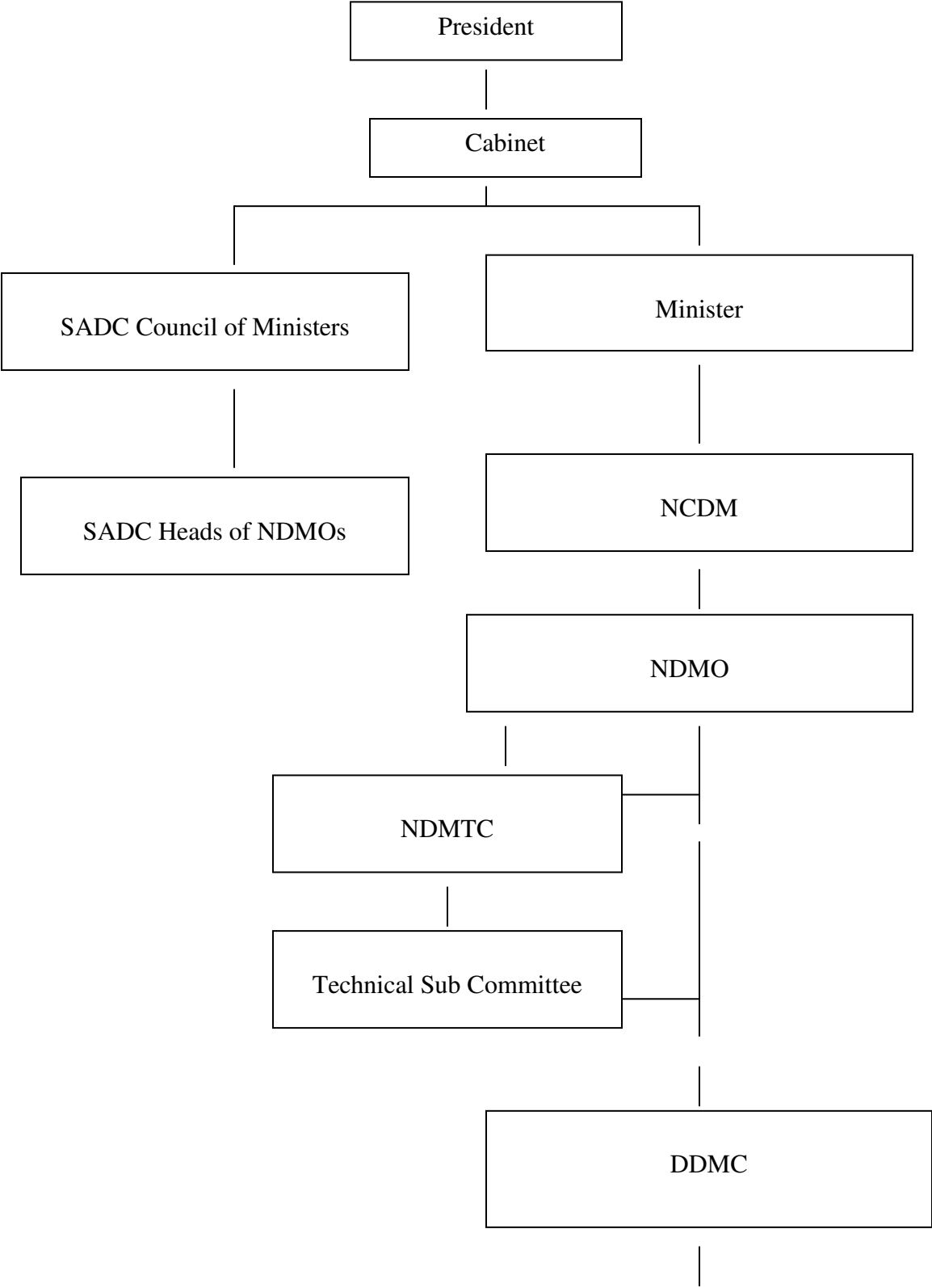
Development: relates to the overall objectives of poverty alleviation, economic growth, the establishment of social justice and economic independence and the sustainability of these over time, that are central to the development process in Botswana.

Prevention measures are taken for the purpose of preventing natural or man-caused phenomena from causing or giving rise to disaster or other emergency situations.

Before disaster occur NDMO together with other stakeholders are involved in prevention of risk through:

- Forecasting based on the knowledge and monitoring of natural or technological circumstances that may cause disasters such as meteorological conditions at the origin of floods;
- Risk assessments such as identification of populations at risk.
- Alerting the population by sounding a warning signal pre-agreed by stakeholders;
- Risk reduction measures;
 - The NDMO informs the public of the hazards to which Botswana is exposed and also of the plans established to address them.
 - The office designs protection measures designed to reduce the vulnerability of people, property and the environment.
 - Establishes measures and imposing adherence to the rules for the security of persons, property and the protection of the environment.
 - Putting in place measures regulating land use and prohibiting allocation in risk areas to be put in place.

DISASTER MANAGEMENT ORGANIZATIONAL CHART



Village Disaster Committee

Appendix III

3. NATIONAL COMMITTEE ON DISASTER MANAGEMENT (NCDM)		
Deputy Permanent Secretary (Development) (Chairperson) Office of the President	Mrs. G. Muzila	3950853
Ministry of Minerals, Energy & Water Resources	Mr. K. G. Moshashane	3656620
Ministry of Finance & Development Planning	Mr. N. J. Manamela	3950269
Botswana Police Service	Mr. T. E. Tsimako	3914702(D) 3952300(H)
Botswana Defence Force	Brig. B. B. Mogamisi	3939925(D) 3500102(H)
Ministry of Works & Transport	Mr G. L. Tlogelang	3901026 (D) 3958509 (H)
Ministry of Agriculture	Dr. M. C. Chimbombi Plot 747 Lenganeng Tlokweng	3950575/6 3959658 (D) 3925069 (H)
Ministry of Local Government	Mr. K. Selotlegeng	3658553 3905854(D)
UNDP	Mr. R. P. Moaneng	3952121 Ext. 203
Ministry of Health	Dr. T. L. Moeti	3952000 3952216
Min of Education, Non Formal Education	Mr. P. Maphorisa	3656300 3656301(D)
Botswana Red Cross Society	Mrs. L. N. Motlhabane Bokaa Ward Mogoditshane	3952465 3974521(D) 3165284(H)
Ministry of Labour and Home Affairs	Mr L.T. Moahi	3611100 3611152(D)

Ministry of Environment, Wildlife and Tourism	Ms. T. Tsiang	3914955
Ministry of Lands and Housing	Mr. V. Rantshabeng Plot 26111 Block 9	3904223 3904237(3925707 (H)
Ministry of Communications, Science and Technology	Mr. A.O. Sesinyi	3907230 3612083(D)

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Appendix IV

District Disaster Relief Supplies Inventory as at 25th July 2005

District	Tents Missing Accessories	Worn out	Tents on Loan	Other equipment not serviceable
Maun		36 cottage and 40 bow tents	26	
Bobirwa			120	Have expired Food
Masunga			161 bell and 22 cottage	
Tutume		395 bow	21 cottage	
Letlhakeng			9 marguee	
Chobe			15 cottage	
Jwaneng	Pegs and poles (20 bell)	91 bell and 47 cottage	12 bell	
Lobatse			1 bow	
Mabutsane		32 cottage and 40 bell		3 fire beaters, 2 motorised fire fighting machines
Tshabong			26 cottage	20 vegetable oil expired
Hukuntsi		24 cottage and 2 bell	2	

