

The Alfred Nzo District Municipality Disaster Management Plan

November 2014

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Resolution code:				
	_			
Municipal Manager	Date			
Executive Mayor	Date			

Development of Disaster Management Plan – November 2012

Acknowledgement

The drafting of this report depended on input, provisioning of information, cooperation and insight of various Alfred Nzo District Municipality Stakeholders and community representatives.

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It should, accordingly, not be assumed that all possible and applicable findings, information and/or measures are included in this report.

Review of Disaster Management Plan – November 2014

This plan was reviewed during November 2014 by DMS. Information collection was done through workshops in the four local municipalities, as well as a workshop with the district municipality. Follow-up interviews with disaster management personnel and the Head of the Centre were also conducted. The views with regard to the implementation status were derived from the information received during these workshops and interviews. The formal collection of evidence was not included in the scope of work.

ACRONYMS

Acronym	Explanation
ANDM	Alfred Nzo District Municipality
ANDM DMP	Alfred Nzo District Disaster Management Plan
ANDM DMAF	Alfred Nzo District Disaster Management Advisory Forum
ANDM DMC	Alfred Nzo District Disaster Management Centre
ANDM DMF	Alfred Nzo District Disaster Management Framework
СВО	Community Based Organisation
COG	Department of Cooperative Governance
DM	District Municipality
DMC	Disaster Management Centre / Disaster Risk Management Centre
DOC	Disaster Operations Centre
ECP	Eastern Cape Province
ECPDMC	Eastern Cape Provincial Disaster Management Centre
E.g.	Example
Etc.	Etcetera
EMP	Environmental Management Plan
FCP	Forward Command Post
FPA	Fire Protection Associations
IDP	Integrated Development Plan
JOC	Joint Operations Centre
LA	Local Authority
LM	Local Municipality
MDGs	Millennium development Goals
MFMA	Municipal Finance Management Act
MMC	Member of the Mayoral Committee
MSA	Municipal Systems Act
NDMC	National Disaster Management Centre
NDMF	Policy Framework for Disaster Management in South Africa
NGO	Non-Governmental Organisation
Prov	Province
PSC	Project Steering Committee
SANDF	South African National Defence Force
SANDMC	South African National Disaster Management Centre
SANDMF	South African National Disaster Management Framework
SAPS	South African Police Service
SAWS	South African Weather Service
SDF	Spatial Development Framework
SOPs	Standard Operating Procedures

TERMS AND DEFINITIONS

The following accepted Disaster Management definitions¹ are applicable in this document:

Term	Definition
Capacity	The combination of all strengths, attributes and resources available within a community, society or
	organisation that can be used to achieve agreed goals.
Contingency Planning	A management process that analyses specific potential events or emerging situations that may
	threaten society or the environment and establishes arrangements to enable timely, effective and
	appropriate responses to such events and situations.
Development planning	An integrated, multi-sectoral process through which governmental institutions streamline social,
	economic and spatial growth.
Disaster	A serious disruption of the functioning of a community or a society involving widespread human,
	material, economic or environmental losses and impacts, which exceeds the ability of the affected
	community or society to cope using its own resources.
Disaster Risk	The potential disaster losses, in lives, health, status, livelihoods, assets and services, which could
	occur to a particular community or society over some specified future time period.
Disaster Management	The systematic process of using administrative directives, organisations, and operational skills and
	capacities to implement strategies, policies and improved coping capacities in order to lessen the
	adverse impacts of hazards and the possibility of disaster. This term is an extension of the more
	general term 'Risk Management' to address the specific issue of disaster risks. Disaster
	Management aims to avoid, lessen or transfer the adverse effects of hazards through activities and
	measures for prevention, mitigation and preparedness.
Disaster Risk Reduction	The concept and practice of reducing disaster risks through systematic efforts to analyse and
	manage the causal factors of disasters, including through reduced exposure to hazards, lessened
	vulnerability of people and property, wise management of land and the environment, and improved
	preparedness for adverse events.
Disaster Risk Reduction	A document prepared by an authority, sector, organisation or enterprise that sets out goals and
Plan	specific objectives for reducing disaster risks together with related actions to accomplish these
	objectives.
Emergency Management	The organisation and management of resources and responsibilities for addressing all aspects of
	emergencies, in particular preparedness, response, and initial recovery steps. A crisis or
	emergency is a threatening condition that requires urgent action. Effective emergency action can
	avoid the escalation of an event into a disaster. Emergency management involves plans and
	institutional arrangements to engage and guide the efforts of government, non-government,
	voluntary and private agencies in comprehensive and coordinated ways to respond to the entire
	spectrum of emergency needs. The expression 'disaster management' is sometimes used instead
	of emergency management.
Hazard	A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury
	or other health impacts, property damage, loss of livelihoods and services, social and economic
	disruption, or environmental damage.
Mitigation	The lessening or limitation of the adverse impacts of hazards and related disasters.
Preparedness	The knowledge and capacities developed by governments, professional response and recovery
	organisations, communities and individuals to effectively anticipate, respond to, and recover from,
	the impacts of likely, imminent or current hazard events or conditions.
Prevention	The outright avoidance of adverse impacts of hazards and related disasters.
Recovery	The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of
,	disaster-affected communities, including efforts to reduce disaster risk factors.
Residual Risk	The risk that remains in unmanaged form, even when effective disaster risk reduction measures are
Troolada Frien	in place, and for which emergency response and recovery capacities must be maintained.
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to
1.0001.00	and recover from the effects of a hazard in a timely and efficient manner, including through the
	preservation and restoration of its essential basic structures and functions.
Response	The provision of emergency services and public assistance during or immediately after a disaster in
	order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence
	needs of the people affected.
Risk	The combination of the probability of an event and its negative consequences.
Risk Assessment	A methodology to determine the nature and extent of risk by analysing potential hazards and
1	evaluating existing conditions of vulnerability that together could potentially harm exposed people,
	property, services, livelihoods and the environments on which they depend.
Risk Management	The systematic approach and practice of managing uncertainty to minimise potential harm and loss.
Vulnerability	The characteristics and circumstances of a community, system or asset that make it susceptible to
v dirici ability	the damaging effects of a hazard.
	Line damaying enects of a flazard.

Note: For the purposes of this document, the terms 'Disaster Management' and 'Disaster Management' are used interchangeably.

iii

¹UNISDR. 2009. 2009 UNISDR Terminology on Disaster Risk Reduction. Geneva: Switzerland

TABLE OF CONTENTS

4CRO	NYN	1S		.ii
TERM	S AN	ID DEFINITIONS		iii
Table	of C	ontents		iv
1		Executive Summary to the 2014 Review of the 2012 DM Plan		.1
2		Introduction		
2.1		General Area Description		
2.2		Disaster Management Plan (DMP) Description		
	.2.1	Objectives of the DMP	6	
	.2.2	Scope of the DMP	6	
	.2.3	A brief description of each KPA and EnablerANDM DMP approach and methodology		
	.2.5	Stakeholder Consultation		
	.2.6	Collection of data and literature review		
2.3		Legal requirements applicable to the Alfred Nzo District Municipality	11	
	.3.1	The Disaster Management Act (the Act)		
	.3.2	Requirements for national departments and public enterprises to compile plans		
	.3.3	Requirements for commerce and industry to compile plans		
		•		
2.4		Linkage with the Integrated Development Plan of the Alfred Nzo District Municipality		
_	.4.1	Linkage with the Spatial Development Framework of the Alfred Nzo District The relationship between disasters and development		
	.4.3	Integrating development and Disaster Management planning		
2.5		Structure of the ANDM Disaster Management Plan (DMP)		
2.5				
3		KPA 1: Institutional Capacity	2	<u>?</u> 4
3.1		Current Institutional Arrangements within ANDM	24	
3.2		Shared responsibility for Disaster Management	27	
-	.2.1	Key outcomes of the Disaster Management Plan		
_	.2.2	Focal points for Disaster Management		
	.2.3	Departments with primary responsibility for specific hazards and disaster risks		
3	.2.4	Assignment of responsibility to deal with specific disaster risks		
3.3		The Alfred Nzo Municipality Disaster Management Structure		
-	.3.1	Alfred Nzo District Disaster Management Advisory Forum Interdepartmental Disaster Management co-ordination		
	.3.3	Focal points for Disaster Management within municipal departments	29	
	.3.4	Departmental planning groups		
	.3.5	Risk reduction project teams		
	.3.6	Preparedness planning groups		
	.3. <i>1</i>	Recovery & rehabilitation project teams		
	.3.9	Technical Task Teams	31	
	.3.10	O Company of the comp		
3	.3.1			
3.3		Institutional Responsibilities	34	
3.4		Information Management	35	
1		KPA 2: Risk Assessment	3	36
4.1 4	.1.1	Risk Profile of the Alfred Nzo District Municipality		
4.2		The dynamic nature of disaster risk	40	
4.3		Risk communication	41	
4.4		Gaps and recommendations	41	

4.5	Data collection for future risk assessment	
5	KPA 3: Disaster Risk Reduction	43
5.1	Risk reduction process	43
5.2	Risk reduction proposals for the Alfred Nzo Municipality	43
5.3	Risk reduction capacity for the Alfred Nzo Municipality	44
5.4	Gaps and recommendations	44
5.5	Risk reduction initiatives to address response and recovery preparation needs	44
6	KPA 4: Response and recovery	45
6.1	Preparedness Plans of the Alfred Nzo District Municipality	45
6.2	Preparedness capacity for the Alfred Nzo District Municipality	45
6.3	Gaps and recommendations	
6.4	Any-hazard Response Procedure	46
6.5	Declaration of a state of disaster and disaster classification	46
6.6	Gaps and recommendations	46
7	Enabler 1: Information management and communication	
8	Enabler 2: Education, training, public awareness and research (Knowledge management)	
9	Enabler3: Funding arrangements for disaster risk management	
10	Testing and review of the plan	
11	Conclusion	
12	Reference documents / Bibliography	
13	Appendixes to the ANDM Disaster Management Plan (as per 2014 plan review)	51
LIST OF	Figures	
	1: The expand / contract model of Disaster Management	
	2: KPAs and Enablers of the National Disaster Management Framework	
	4: The relationship between plans	
Figure	5: The Relationship between the SDF, IDP and Disaster Management PlanPlan	20
Figure	6: The relationship between disasters and development	21
	7: Planning Process for developing a DMP	
	8: Structure of the Alfred Nzo Municipal Disaster Management Plan	
	10: ANDM Disaster Management Structure 2014	
Figure	11: Suggested design for the DMC	29
Figure	12: District Disaster Management Coordination and Collaboration	33
List of	Maps	
Мар 1:	Locality map of ANDM	4
List of	Tables	
Table 1	: NDMF KPAs, Enablers and Objectives	8
Table 2	2: Status of compliance with Disaster Management Act within Alfred Nzo District	18
	3: Identified hazards in Alfred Nzo District Municipality	
ı able 6	S: ANDM Common Hazards	38

1 EXECUTIVE SUMMARY TO THE 2014 REVIEW OF THE 2012 DM PLAN

The original 2012 ANDM DM Plan consisted of 7 main chapters whereas the reviewed plan now consists of 10 chapters. The three new additional chapters i.e. chapters 7, 8 and 9, deal with the three Enablers components of the National Disaster Risk Management Policy Framework. Although these critical components of the Framework were described in detail in the 2012 Plan, they were not included as separate chapters in the drafting of the main plan. On the contrary, the 2012 plan only acknowledges the four Key Performance Areas (KPAs) of the Framework as the key components of the original 2012 plan.

This limitation, not to include the Three Enablers components as separate chapters, with separate Enabler plans, has now been addressed in the reviewed plan.

The reviewed plan also now includes references to the specific Support Policies of the ANDM's new Policy Framework, which are now clearly indicated in the appropriate sections and appendixes. Furthermore the Enabler chapters 7, 8 and 9, highlight the critically important plans needed to enable and support each KPA to effectively and efficiently address its specific area of disaster risk management.

The other major change in the structure of the reviewed plan is the division of the core plan (a core not requiring regular changes) from the detailed appendixes of the various sub sections of the plan that require regular and continuous changes. This approach to the planning framework offers a more dynamic and flexible system of plan implementation and administration. This system now consists of 30 appendixes as opposed to the original plan which only had two annexures. It must be noted that many of these appendixes are directly linked in some way to the ANDM's new 2014 Policy Framework's 15 Support Polices.

This review process has initiating these major changes to the 2014 plan content and structure however, other areas reviewed focused on the implementation of directives and action imperatives prescribed in the 2012 plan. The findings clearly indicate that many of the key directives contained in the plan have not been actioned over the period under review.

Some of these findings and recommendations are indicated directly in the text of the plan. However, there is also a formal 17-page Review Report which summarises the findings and offers relevant recommendations.

The 2014 Review Report addresses the review mandate and its objectives and sets out the review processes followed. The findings of the review are divided into two sections: firstly, the general findings and secondly the specific findings regarding the four KPAs and three Enablers.

The general findings indicate that the original plan was drafted during the time when the ANDM did not have a DRM Policy Framework. The ANDM's new Framework was adopted earlier in 2014 and the Framework's 15 Supporting Policies have now been included and referenced appropriately in the reviewed plan and its 30 appendixes. However, there is still a need for additional support policies – such as a "Funding Plan for Disaster Management in the ANDM."

The other important findings and recommendations regarding the KPAs and the Enablers include the following:

- The following structures that ensure integrated multi-entity coordination of the disaster management function in the ANDM have not fully functional or have not been established:
 - The Inter-municipality Committee for DRM: See Appendix C 2: "The ANDM Inter-municipality Committee on DRM"
 - Interdepartmental DRM Committee: See Appendix C 3: "The ANDM Interdepartmental DRM Committee"
 - Not all ANDM Departments Mandates and Focal Appointments established or appointed. See Appendix C 4: "ANDM departments: Mandates and Focal Points"
- 2. The hazards classified as high identified across the ANDM during 2014 are:
 - Veld/forest fires
 - Extreme weather; hail, high winds, etc.
 - Motor vehicle accidents
 - Stock theft
 - Human diseases: TB; HIV; cholera

It is recommend that ANDM focus on the 5 priority hazards, develop risk reduction plans, integrate into IDPs and develop response plans which the ANDM can develop and implement according to available capacity.

- 3. The need to urgently establish the following formal emergency response and communication systems and the relevant technical task teams:
 - Emergency Communication system
 - Early Warning System
 - Incident management systems
- 4. For the three Enablers the findings and recommendations made are:
 - Enabler 1: Information Management and Communication: To address the planning gap found in this area and to comply with the NDMC's Guidelines for a Level 1 Plan, the following two technical task teams (TTT) need to be urgently established: firstly, a TTT for Information Management System Development and secondly a TTT for Emergency Communications.
 - Enabler 2: Knowledge Management: A training needs analysis must be undertaken in 2015 and a training plan developed to address the specific priority areas needs identified. The development of a Framework for education, training and the formal promotion of public awareness is urgently required. A strategic research agenda must also be developed.
 - Enabler 3: Funding arrangements for DRM in ANDM: Funding plans be urgently established for risk reduction; risk relief; disaster recovery and rehabilitation.

The review concludes with recommendations on the need for formal testing of the 2014 DRM Plan because there was no evidence found of any formal testing or exercise processes in place. These recommendations include both the overall DM Plan review process and also the exercising and testing of the components and sub components of the plan which can be done on a quarterly or 6-monthly basis.

The quality of the plan and the execution thereof is dependent on the skills and knowledge of those that use the plan. Therefore the regular formal testing, exercising and review of the plan will ensure that the staff and stakeholders using the plans are more proficient and well-resourced when a disaster or serious incident occurs.

2 INTRODUCTION

Emergencies and disasters respect no boundaries and can destroy life and property suddenly and without warning. The South African government has recognised the need to prepare for disasters and to reduce the risk of disasters and has made provision for such measures through the three spheres of government in partnership with the private sector and civil society.

The ANDM is not immune to emergencies and disasters and annually suffers the impact of various humaninduced and natural hazards that have the potential to kill, injure, destroy and disrupt. The District is committed to ensuring the safety of its inhabitants and the sustainability of its communities, economy and environment and therefore intends to effectively manage disaster risk within the District in close collaboration with all relevant stakeholders and especially the local municipalities within the District.

The ANDM is required as per the Disaster Management Act, 2002 (Act 57 of 2002), to compile municipal Disaster Management plans. This document fulfils this legal requirement and confirms the arrangements for managing disaster risk and for preparing for- and responding to disasters within the ANDM.

The intended outcomes of this plan are:

- The integration of Disaster Management into the strategic and operational planning and project implementation of all line functions and role players within ANDM;
- The creation and maintenance of resilient communities within the District; and
- An integrated, fast and efficient response to emergencies and disasters by all role-players.

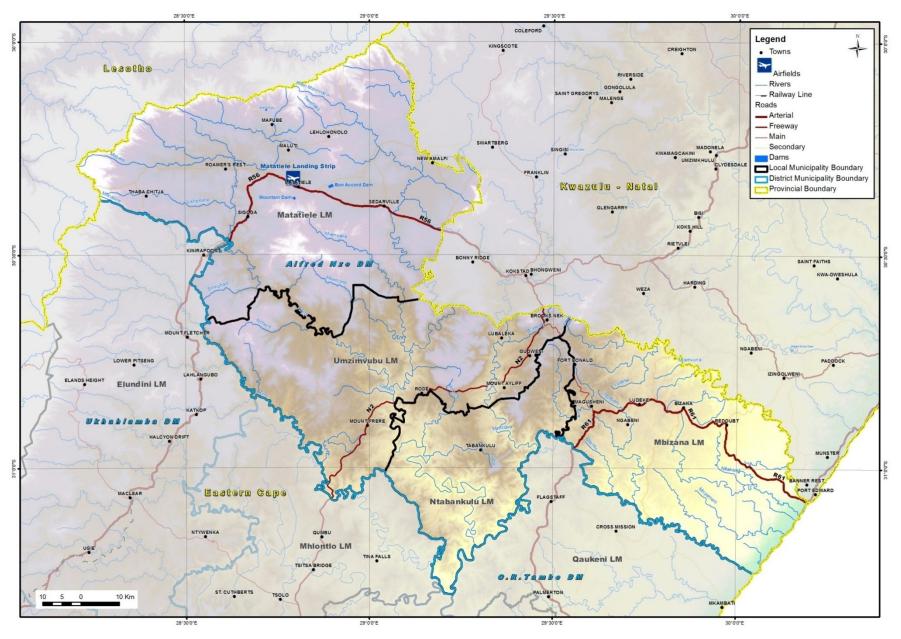
The overall objective of this document is not only to define the essential elements and procedures for preventing and mitigating major incidents or disasters, but also to ensure rapid and effective response and aspect specific contingency planning in case of a major incident or disaster that will:

- Save lives:
- · Reduce risk exposure;
- Reduce suffering;
- Protect property;
- Protect the environment;
- Reduce economic and social losses; and
- Provide for the safety and health of all responders.

In this chapter the study area will be described, after which the compilation of the Disaster Management Plan will be presented with specific attention given to the relationship between the plan and the Key Performance Areas and Enablers of the Alfred Nzo District Municipality's Disaster Management Framework, as well as the Policy Framework for Disaster Management (National Disaster Management Framework) in South Africa.

2.1 General Area Description

The ANDM lies in the north-eastern part of the Eastern Cape and includes both mountainous, as well as coastal regions. It is the smallest district in the province, and is sub-divided into Umzimvubu, Matatiele, Mbizana and Ntabankulu local municipalities. The District covers an area of 11 119 square kilometres and is bordered by Lesotho and KwaZulu-Natal. The main towns are Matatiele, Maluti, Mount Ayliff, Mount Frere, Bizana and Ntabankulu. Mount Ayliff is the administrative centre of the District but Kokstad serves as important commercial linkage town. Kokstad lies 50km from Mouth Ayliff and lies outside the boundaries of the District, in Sisonke District Municipality, KwaZulu-Natal Province.



Map 1: Locality map of ANDM

The District is vulnerable to the impact of natural and human-induced disasters and the population of the area has historically suffered loss of life and injury, property destruction or damage, the interruption of socio-economic activity and damage to the environment due to disasters.

In order to minimise disaster impacts, decrease disaster risk, reduce hazards and vulnerability and to increase capacity and resilience, it is necessary to compile and implement a comprehensive Disaster Management Plan. Disaster Management is a continuous and integrated multi-sectoral and multidisciplinary process of planning and implementation of measures aimed at preventing or reducing the risk of disasters; mitigating the severity or consequences of disasters; ensuring emergency preparedness; enabling a rapid and effective response to disasters and facilitating post-disaster recovery and rehabilitation.

The Figure 1 illustrates how the various work streams within Disaster Management increase and decrease in intensity and resource requirements over time as crises approach and are dealt with. The figure further demonstrates that Disaster Management involves the simultaneous management of several disaster risks in various stages of the life cycle of disaster risks.

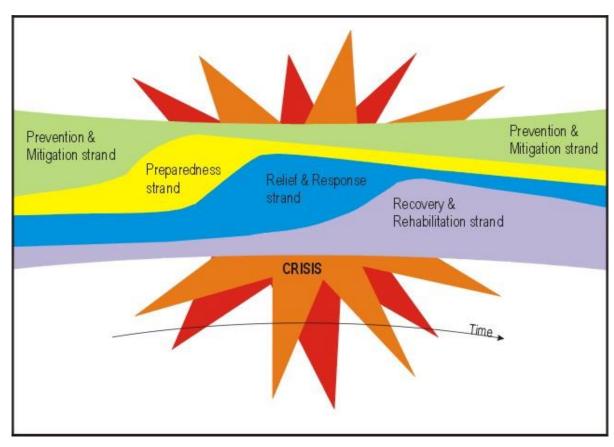


Figure 1: The expand / contract model of Disaster Management

The South African government has responded to the negative consequences of disasters by developing legislation (The Disaster Management Act, 2002 – Act 57 of 2002) and national policy (The National Disaster Management Framework, 2005) to deal with the management of disaster risk and disaster impact.

The Disaster Management Act, hereafter termed the Act, provides for an integrated and co-ordinated Disaster Management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery. The Act prescribes the establishment of national, provincial and municipal Disaster Management centres. Most importantly in the context of this document, the Act also requires the compilation of Disaster Management Plans in all spheres of government. The ANDM is primarily responsible for the implementation of the Act within its area of jurisdiction, with a specific focus on ensuring effective and focused disaster risk reduction planning.

2.2 Disaster Management Plan (DMP) Description

2.2.1 Objectives of the DMP

The Policy Framework for Disaster Management in South Africa indicates that the main objectives of Disaster Management in any particular jurisdiction within South Africa, such as the ANDM, are to:

- Establish integrated institutional capacity within the District to enable the effective implementation of Disaster Management policy and legislation;
- Establish a uniform approach to assessing and monitoring disaster risks that will inform Disaster Management planning and disaster risk reduction undertaken by the District and other role-players;
- Develop and implement integrated Disaster Management plans and risk reduction programmes in accordance with approved frameworks; and
- Ensure effective and appropriate disaster response and recovery.

The objectives of the DMP are aligned to the National Policy Framework and to the ANDM Policy Framework and are thus to focus on:

- The development of Institutional Capacity for Disaster Management through the establishment of a District Disaster Management Advisory Forum and related management structures and processes;
- The completion of a Disaster Risk Assessment and related reports and guidelines;
- The development of Risk Reduction Planning (Strategy) and related products; and
- The development of Operational Response and Recovery Plans and related products.
- The development of the three Enablers (Information Management and Communication; Education, Training, Public Awareness and Research; as well as Funding Arrangements) in support of the above.

2.2.2 Scope of the DMP

This DMP falls within the paradigm of the South African (National), Eastern Cape (Provincial) and ANDM Disaster Management Frameworks as well as the strategy frameworks of the ANDM and the four Local Municipalities within the District. The DMP applies to the whole of the ANDM and will influence the interaction of all spheres of government and sectors of society within the District with regards to disaster risk and disaster impact.

The ANDM DMP will function as a guideline for the practical implementation of all aspects of Disaster Management within the Alfred Nzo District and will serve as management decision-making tool that will assist with the identification of disaster risks and the functional and organisational integration of disaster risk reduction as well as disaster response actions and projects.

The ANDM DMP will therefore provide Disaster Management stakeholders with clear guidance on activities they need to undertake to meet the objectives and targets of the National, Provincial and Alfred Nzo District Disaster Management Framework (ANDM DMF) and to reduce disaster risk and increase disaster resilience within the district.

The Policy Framework for Disaster Management in South Africa, also known as the National Disaster Management Framework (NDMF) was published in 2005. It is the legal instrument specified by the Act to address needs for consistency across multiple interest groups by providing a coherent, transparent and inclusive policy on Disaster Management appropriate for the Republic as a whole. The NDMF is organised into four Key Performance Areas (KPAs) and three Enablers as illustrated in Figure 2.

The four KPAs of the NDMF correspond with the main sections of the DMP and thus serves as the document structure as illustrated in Figure 2.

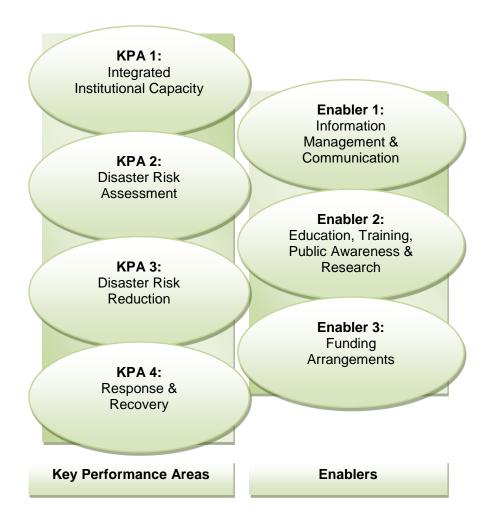


Figure 2: KPAs and Enablers of the National Disaster Management Framework

The four KPAs and the three Enablers are:

- KPA 1: Integrated Institutional Capacity for Disaster Management;
- KPA 2: Disaster Risk Assessment;
- KPA 3: Disaster Risk Reduction;
- KPA 4: Response and Recovery;
- Enabler 1: Information Management and Communication;
- Enabler 2: Education, Training, Public Awareness and Research; and
- Enabler 3: Funding Arrangements for Disaster Management.

In the table on the overleaf the KPAs and Enablers are illustrated with the main objective for each of these KPAs and Enablers indicated in the right-hand column.

Table 1: NDMF KPAs, Enablers and Objectives

NDMF KPAs and Enablers	National Framework objectives translated to District-level objectives
KPA 1: Integrated Institutional Capacity for Disaster Management	Establish integrated institutional capacity for Disaster Management within the Alfred Nzo District to enable the effective implementation of Disaster Management policy and legislation.
KPA 2: Disaster Risk Assessment	Establish a uniform approach to assessing and monitoring disaster risks that will inform Disaster Management planning and disaster risk reduction undertaken by organs of state and other role players.
KPA 3: Disaster Risk Reduction	Ensure all Disaster Management stakeholders develop and implement integrated Disaster Management plans and risk reduction programmes in accordance with approved National, Provincial (Eastern Cape) and District (Alfred Nzo) frameworks.
KPA 4: Response and Recovery	 Ensure effective and appropriate disaster response and recovery by: Implementing a uniform approach to the dissemination of early warnings; Averting or reducing the potential impact in respect of personal injury, health, loss of life, property, infrastructure, environments and government services; Implementing immediate integrated and appropriate response and relief measures when significant events or disasters occur or are threatening to occur; Implementing all rehabilitation and reconstruction strategies following a disaster in an integrated and developmental manner.
Enabler 1: Information Management and Communication	Development of a comprehensive information management and communication system. Establish integrated communication links with all Disaster Management role players.
Enabler 2: Education, Training, Public Awareness and Research	Promote a culture of risk avoidance among Disaster Management stakeholders within the Alfred Nzo District by capacitating all role players through integrated education, training and public awareness supported by scientific research.
Enabler 3: Funding Arrangements for Disaster Management	Establish mechanisms for the funding of Disaster Management in the Alfred Nzo District.

Both the Eastern Cape Provincial Disaster Management Framework and the Alfred Nzo District Disaster Management Frameworks are structured around the KPAs and Enablers as set out in the Policy Framework for Disaster Management in South Africa.

2.2.3 A brief description of each KPA and Enabler

In this section a short description of each of the KPAs and Enablers of the Policy Framework for Disaster Management in South Africa is provided to enable the reader to contextualise the use of the KPAs and Enablers within the Municipal Disaster Management Plan of the Alfred Nzo District.

Each of these KPAs and Enablers are further elaborated upon in the Disaster Management Frameworks of the Eastern Cape Province and Alfred Nzo District.

2.2.3.1 KPA 1: Integrated Institutional Capacity for Disaster Management

Key Performance Area 1 of the Policy Framework for Disaster Management in South Africa (NDMF) establishes the requirements for effective institutional arrangements in the national sphere to ensure the integrated and coordinated implementation of Disaster Management policy and legislation and the application of the principle of co-operative governance. Key Performance Area 1 also places appropriate emphasis on arrangements that will ensure the involvement of all stakeholders in Disaster Management in order to strengthen the capabilities of national, provincial and municipal organs of state. Arrangements that will facilitate co-operation with countries in the region and the international community for the purpose of Disaster Management are also discussed.

2.2.3.2 KPA 2: Disaster Risk Assessment

Disaster risk specifically refers to the likelihood of harm or loss due to the action of hazards or other external threats on vulnerable structures, services, areas, communities and households within an area. Key Performance Area 2 addresses the need for conducting ongoing disaster risk assessments and monitoring to inform Disaster Management planning and priority setting, guide disaster risk reduction efforts and monitor the effectiveness of such efforts. It also outlines the requirements for implementing disaster risk assessment and monitoring by organs of state within all spheres of government.

2.2.3.3 KPA 3: Disaster Risk Reduction

The successful implementation of the Act critically depends on the preparation and alignment of Disaster Management frameworks and plans for all spheres of government. The legal requirements for the preparation of Disaster Management frameworks and plans by national, provincial and municipal organs of state are specified in sections 25, 38 and 52 of the Act. This Key Performance Area addresses the requirements for Disaster Management planning within all spheres of government. It gives particular attention to the planning for and integration of the core risk reduction principles of prevention and mitigation into ongoing programmes and initiatives.

2.2.3.4 KPA 4: Response and Recovery

The Act requires an integrated and coordinated policy that focuses on preparedness for disasters, rapid and effective response to disasters and post-disaster recovery and rehabilitation. When a significant event or disaster occurs or is threatening to occur, it is imperative that there should be no confusion as to roles, responsibilities, funding arrangements and the procedures to be followed. This section addresses key requirements that will ensure that planning for disaster response and recovery as well as rehabilitation and reconstruction achieves these objectives.

2.2.3.5 Enabler 1: Information Management and Communication

Disaster Management is a collaborative process that involves all spheres of government, non-governmental organisations, the private sector, a wide range of capacity-building partners and communities. Integrated Disaster Management depends on access to reliable hazard and disaster risk information as well as effective communication systems to enable the receipt, dissemination and exchange of information. It therefore requires capabilities to manage risks on an ongoing basis, and to effectively anticipate, prepare for, respond to and monitor a range of natural and other hazards. It further requires systems and processes that will enable all role players to make timely and appropriate decisions during emergencies. These systems and processes must also inform Disaster Management and development planning processes by all stakeholders.

2.2.3.6 Enabler 2: Education, Training, Public Awareness and Research

Sections 15 and 20(2) of the Disaster Management Act specify the promotion of education and training, the encouragement of a broad-based culture of risk avoidance, and the promotion of research into all aspects of Disaster Management. This Key Performance Area addresses the development of education and training for Disaster Management and associated professions as well as the inclusion of Disaster Management and risk-avoidance programmes in school curricula. It also outlines mechanisms for awareness creation and the development of a national disaster risk research agenda.

2.2.3.7 Enabler 3: Funding Arrangements for Disaster Management

The provision of funding for Disaster Management is likely to constitute the single most important factor contributing to the successful implementation of the Act by national, provincial and municipal spheres of government. The Act, with the exception of Chapter 6 on funding of post-disaster recovery and rehabilitation, does not provide clear guidelines for the provision of funding for Disaster Management. In order to give effect to the requirements of the Act, four Key Performance Areas and three Enablers have been identified in the NDMF to guide the implementation of the Act. Accordingly, funding from a range of sources for the different aspects of Disaster Management outlined in the Key Performance Areas and Enablers will be required. Enabler 3 builds on the recommendations made by the Financial and Fiscal Commission on funding arrangements in its Submission on the Division of Revenue 2003/04, and describes the Disaster Management funding arrangements for organs of state in the national, provincial and local spheres of government. From the perspective of the ANDM, it is important that all the Enablers and Key Performance Areas are adequately addressed in the framework and the Disaster Management plan of the district.

In this plan, the Key Performance Areas are reflected in specific dedicated chapters, while the Enablers are interwoven into all chapters of the plan. Figure 3 illustrates the relationship between the chapters of the plan and the KPAs and Enablers of the National Framework.

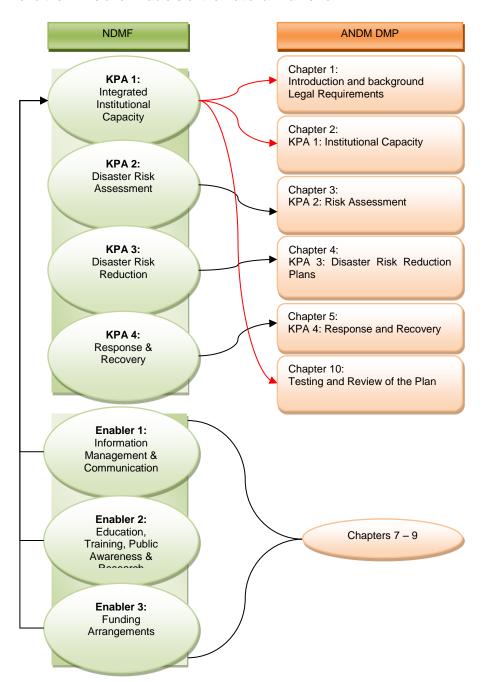


Figure 3: The Interrelationship between the NDMF and the ANDM DMP

2.2.4 ANDM DMP approach and methodology

The methodology used during the compilation of the ANDM DMP is aligned with existing methodologies and practice utilised within the Eastern Cape Province and is aligned with the Policy Framework for Disaster Management in South Africa.

The overall approach combines participatory-consultative aspects with expert opinion based on research and experience. The data used in the compilation of the DMP was gathered from stakeholder consultation as well as a desktop study which summarised existing data provided by ANDM officials and other supporting documents retrieved from credible internet sources.

2.2.5 Stakeholder Consultation

The approach for managing the assembly of the ANDM DMP entailed a close collaboration and liaison with the top management of ANDM Disaster Management, the ANDM Disaster Management Project Manager, and the Disaster Management representatives from the four local municipalities within the district. The Project Steering Committee met as and when required to discuss the DMP progress and any administration.

The Project Steering Committee (PSC) for the project consisted of:

- Alfred Nzo DM Senior Manager Community Development Services;
- Alfred Nzo Disaster Management (Project Manager); and
- Service provider Project Leaders.

The relevance and quality of the ANDM DMP is reliant on inputs from a wide variety of stakeholders and a series of stakeholder consultation workshops were held. During 2011, two workshops were held at a District level and one in the Umzimvubu and Matatiele Local Municipalities respectively. In 2012, one workshop was held in Ntabankulu and one in Mbizana to align the process.

The ANDM Disaster Management took responsibility for inviting stakeholders to the workshops. The workshops were facilitated by the service provider using participative methodologies to identify and assess risks. The attendance registers of all workshops are available in electronic format and hard copy.

During the review process, stakeholder workshops were repeated. The information obtained during these workshops and subsequent interviews with key disaster management personnel, was used to determine the outcomes of the review.

2.2.6 Collection of data and literature review

Existing information and data was collected in hardcopy where possible, as well as in electronic format from ANDM officials as well as from credible internet sources for review. The existing and relevant Disaster Management legislation and policy frameworks, together with the Alfred Nzo IDP and other documents, studies, policies, frameworks and strategies formed a point of departure. Available information was supplemented with the service provider's own research and information database as well as leads and references provided by the Client and the PSC.

In the next section the legal requirements related to Disaster Management within the ANDM will be defined and the current compliance with these legal requirements will be discussed.

2.3 Legal requirements applicable to the Alfred Nzo District Municipality

South Africa is prone to a variety of natural and human-induced hazards, which occasionally lead to loss of property and lives. In the past decade, these hazard occurrences have become more frequent and severe. The Constitution of the Republic of South Africa (Act 108 of 1996) gives everyone the right to a safe environment. Section 24 states that everyone has the right to an environment that is not harmful to their health or well-being.

The National Government recognised a need to establish an institutional framework that allows for risk prevention and rapid action during an occurrence and has taken certain steps towards this end, such as:

- White Paper on Disaster Management: The White Paper introduced a new paradigm in the management of disasters, by placing an emphasis on risk reduction and preparedness;
- Disaster Management Act (the Act): The White Paper led to the promulgation of the Disaster Management Act, Act57 of 2002, which is the regulatory framework for Disaster Management in South Africa. The Department of Cooperative Governance (COG), through the National Disaster Management Centre (NDMC), administers the Act.
- National Disaster Management Framework (NDMF): The NDMC has prepared a Policy Framework for Disaster Management in South Africa, which aims to guide the development and implementation of Disaster Management in the country.
- National Disaster Management Centre Guidelines: The NDMC developed guidelines for the establishment of disaster management centres (DMCs).
- **Provincial Disaster Management Generic Plans**: The PDMC appointed a service provider to compile generic Disaster Management plans that will assist districts and local municipalities with the compilation of their plans using standardised action lists.

2.3.1 The Disaster Management Act (the Act)

The Disaster Management Act, Act 57 of 2002 (the Act), requires that, inter alia, the three spheres of government prepare *Disaster Management Plans* (Sections 39 and 53 of the Act).

Section 39 of the Act addresses the disaster management planning requirements for Provinces, namely:

- "(1) Each province must-
 - (a) prepare a disaster management plan for the province as a whole:
 - (b) co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players; and
 - (c) regularly review and update its plan.
- (2) A disaster management plan for a province must-
 - (a) form an integral part of development planning in the province;
 - (b) anticipate the types of disaster that are likely to occur in the province and their possible effects;
 - (c) guide the development of measures that reduce the vulnerability of disaster-prone areas, communities and households:
 - (d) seek to develop a system of incentives that will promote disaster management in the province;
 - (e) identify the areas or communities at risk;
 - (f) take into account indigenous knowledge relating to disaster management:
 - (g) promote disaster management research;
 - h) identify and address weaknesses in capacity to deal with possible disasters:
 - (i) provide for appropriate prevention and mitigation strategies;
 - (j) facilitate maximum emergency preparedness; and
 - (k) contain contingency plans and emergency procedures in the event of a disaster, providing for-
 - (i) the allocation of responsibilities to the various role-players and
 - (ii) prompt disaster response and relief;
 - (iii) the procurement of essential goods and services:
 - (iv) the establishment of strategic communication links;
 - (v) the dissemination of information; and
 - (vi) other matters that may be prescribed.
- (3) Municipal organs of state in the province, to the extent required by the province, may be requested to co-operate with the province in preparing a disaster management plan for the province.
- (4) A province must submit a copy of its disaster management plan and of any amendment to the plan to the National Centre and each municipal disaster management centre in the province."

Section 53 of the Act addresses the disaster management planning requirements for Municipal Entities, namely:

- "(1) Each municipality must, within the applicable municipal disaster management framework-
 - (a) prepare a disaster management plan for its area according to the circumstances prevailing in the area;
 - (b) co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players;
 - (c) regularly review and update its plan; and
 - (d)through appropriate mechanisms, processes and procedures established in terms of Chapter 4 of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000), consult the local community on the preparation or amendment of its plan.
- (2) A disaster management plan for a municipal area must-
 - (a) form an integral part of the municipality's integrated development plan;
 - (c) anticipate the types of disaster that are likely to occur in the municipal area and their possible effects;
 - (d) place emphasis on measures that reduce the vulnerability of disaster-prone areas, communities and households;
 - (e) seek to develop a system of incentives that will promote disaster management in the municipality;
 - (e) identify the areas, communities or households at risk;

- (f) take into account indigenous knowledge relating to disaster management;
- (g) promote disaster management research;
- (h) identify and address weaknesses in capacity to deal with possible disasters;
- (i) provide for appropriate prevention and mitigation strategies:
- (j) facilitate maximum emergency preparedness; and
- (k) contain contingency plans and emergency procedures in the event of a disaster, providing for-
 - (i) the allocation of responsibilities to the various role-players and co-ordination in the carrying out of those responsibilities;
 - (ii) prompt disaster response and relief;
 - (iii) the procurement of essential goods and services;
 - (iv) the establishment of strategic communication links;
 - (v) the dissemination of information; and
 - (vi) other matters that may be prescribed.
- (3) A district municipality and the local municipalities within the area of the district municipality must prepare their disaster management plans after consulting each other.
- (4) A municipality must submit a copy of its disaster management plan, and of any amendment to the plan, to the National Centre, the disaster management centre of the relevant province, and, if it is a district municipality or a local municipality, to every municipal disaster management centre within the area of the district municipality concerned."

The current understanding of the Act as it relates to *Disaster Management Plans* is that Municipalities must plan for the following:

- Disaster Risk Reduction (Disaster Mitigation) Planning: Disaster Risk Reduction Plans should reduce the risks to which vulnerable communities are exposed to acceptable levels (described in Sections 39 (2) and 53 (2) (a); (b); (c); (e); (f); (h) and (i) of the Act). In preparing their Risk Reduction Plans, Municipalities should apply their minds and produce cost-effective and innovative risk reduction solutions. The majority of these plans will be linked to the Integrated Development Plan (IDP) as projects and programmes;
- Disaster Preparedness (Response & Relief) Planning: Disaster Preparedness Plans (described in Sections 39 (2) and 53 (2) (b); (e); (f); (h) (j) and (k) of the Act), should address response and relief actions to be implemented should a disaster hit a community that is not particularly vulnerable to risks and/or find it acceptable to live with such risks; and
- Disaster Impact Assessment and Recovery (Recovery, Rehabilitation & Reconstruction)

 Planning: Disaster Impact Assessment and Recovery Planning should focus on assessing the impact of a disaster; identifying appropriate reconstruction and rehabilitation measures; and monitoring the effectiveness of the reconstruction and rehabilitation measures.

According to section 53 of the Act, the ANDM is legally obliged to

- Prepare a Disaster Management plan for its area according to the circumstances prevailing in the District;
- To co-ordinate and align the implementation of its plan with those of other organs of state and institutional role players;
- To regularly review and update its plan; and
- Include consultation with its local municipalities as well as local communities in the preparation or amendment process.

In the Disaster Management Amendment Bill the responsibilities of local municipalities are expanded to include more details for the development of their plans and the capacity for implementation (See sections 43 and 52 of the Bill). These are already included as "best practise" in this plan.

Section 53(2) (a) of the Act specifies that the Disaster Management plan for a municipality must form an integral part of the municipality's Integrated Development Plan (IDP). Section 26(g) of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) lists "applicable disaster management plans" as core components of an IDP. The linkage between the Disaster Management Plan and the IDP will be explored in later sections of this chapter.

According to Section 53(4) of the Act, the Municipality must submit a copy of its Disaster Management Plan (DMP), and of any amendment to the plan, to the Disaster Management Centre of the Eastern Cape Province and the National Disaster Management Centre.

Additional legislative requirements that will inform the way in which the ANDM approaches the management of disaster risks within its jurisdiction includes the Municipal Structures Act of 1998 (Act 117 of 1998). According to Section 84(1)(j) of this act, the ANDM is responsible for the provision of firefighting services serving the area of the District Municipality as a whole.

This section has focused on the implications of the Act for the ANDM, but the Act also provides for the responsibility of other stakeholders to attend to Disaster Management. The Disaster Management planning responsibilities of national departments and public enterprises operating within the jurisdiction of the ANDM will be described in the next section.

2.3.2 Requirements for national departments and public enterprises to compile plans

The ANDM working in isolation of other organs of state and the private sector would not be able to significantly reduce the variety of disaster risks which confront the inhabitants of the District. Disaster Management is truly everybody's business and collaboration and co-operation would be required to reduce disaster risk. The success of the ANDM DMP depends on effective planning by several other stakeholders as illustrated in the figure below.

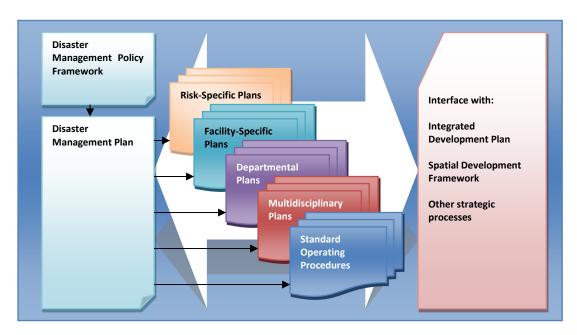


Figure 4: The relationship between plans

National government departments and public enterprises operating within the boundaries of the ANDM can make considerable contributions to disaster risk reduction within the district through the compilation of their own Disaster Management plan. This sub-section describes the legal requirement for national departments and public enterprises conduct Disaster Management planning.

Part 2, Section 25 of the Disaster Management Act governs the preparation of disaster management plans by national organs of state:

'(1) Each national organ of state indicated in the Policy Framework for Disaster Management in South Africa must prepare a disaster management plan setting out (i) the way in which the concept and principles of disaster management are to be applied in its functional area; (ii) its role and responsibilities in terms of the Policy Framework for Disaster Management in South Africa; (iii) its role and responsibilities regarding emergency response and post disaster recovery and rehabilitation; (v) its capacity to fulfil its role and responsibilities; (vi) particulars of its disaster management strategies: and(vi) contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies; co-ordinate and align the implementation of its plan with those of other organs of state and institutional role-players; and regularly review and update its plan.

- (2) The disaster management plan of a national organ of state referred to in subsection (1) must form an integral part of its planning.
- (3) (a) A national organ of state must submit a copy of its disaster management plan and of any amendment to the plan to the National Centre. (b) If a national organ of state fails to submit a copy of its disaster management plan or of any amendment to the plan in terms of paragraph (a), the National Centre must report the failure to the Minister, who must take such steps as may be necessary to secure compliance with that paragraph, including reporting the failure to Parliament.'

Section 1 of the Act describes a national organ of state as a national department or national public entity defined in section 1 of the Public Finance Management Act, 1999 (Act 1 of 1999). A national department is described in the same section as '(a) a department listed in schedule 1 of the Public Service Act, 1994 (Proclamation No 103 of 1994), but excluding a provincial administration; or (b) an organisational component listed in Schedule 3 of that Act'.'

According to Section 1 of the Public Finance Management Act, 1999 (Act 1 of 1999), a national public entity means '(a) a national government business enterprise or (b) a board, commission, company, corporation, fund or other entity (other than a national government business enterprise) which is (i) established in terms of national legislation; (ii) fully or substantially funded either from the National Revenue Fund, or by way of a tax. Levy or other money imposed in terms of national legislation; and (iii) accountable to Parliament.'

In the same section a national government business enterprise is defined as an entity which '(a) is a juristic person under the ownership control of the national executive; (b) has been assigned financial and operational authority to carry on a business activity; (c) as its principal business, provides goods or services in accordance with ordinary business principles; and (d) is financed fully or substantially from sources other than (i) the National Revenue Fund; or (ii) by way of a tax, levy or other statutory money.'

All national departments and public enterprises operating within the ANDM thus have a responsibility to have Disaster Management plans in place and can be engaged with in this regard. Disaster Management planning does not stop with government and organs of state. The private sector is also encouraged to develop Disaster Management plans and is legally required to at least ensure occupational health and safety and to have emergency planning in place.

2.3.3 Requirements for commerce and industry to compile plans

Disaster Management requires multi-sectoral co-operation and it is critical that business also contributes to the reduction of disaster risk in communities. District and local municipalities must therefore maintain strong relationships with business, especially where commerce and industry can provide resources that can contribute to disaster risk reduction. Commerce and industry can contribute directly to Disaster Management through memorandums of understanding or direct assistance, but could also choose to use corporate social investment vehicles for this purpose.

It is in the interest of any business to ensure that it is reducing its exposure to disaster risk and that it is able to respond quickly and effectively to any incident that may affect its ability to conduct business and generate income. There is a strong link between the resilience of commerce and industry within a specific area and the ability of communities to bounce back from adversity. Communities rely on commerce and industry for livelihoods and for the commercial provision of daily necessities. It is therefore in the interest of ANDM Disaster Management to support emergency and Disaster Management planning within commerce and industry.

The desire of commerce and industry to stay in business and maintain profit levels is enough motivation for this sector to assess their risks and devise plans to avoid, reduce or respond to risks which could affect their ability to continue with business. In addition good practice and corporate social responsibility also dictate that commerce and industry assess and manage risk, which includes disaster risk. The King II and III Reports³ focus on risk management in companies and place an emphasis on the triple-bottom line of financial, social and

²The schedules are available at http://www.acts.co.za/public_service_act_1994/index.htm.

³ King II and III available online from: www.iodsa.co.za

environmental aspects. The King reports underline the importance of risk management and business continuity planning and provides a basis for interaction between the ANDM and commerce and industry within the area on issues of risk and joint efforts to reduce risk or to respond to disasters.

More formally, the Occupational Health and Safety (OHS) Act (No. 85 of 1993) and the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977) with their respective regulations and codes of practice and associated standards require compliance to many safety-related aspects. With particular reference to the mining sector which is well-represented within the District, the Mine Health and Safety Act, 1996 (Act 29 of 1996) also warrants mentioning. Compliance with these acts and their regulations, codes and standards will protect the interests of the private sector.

Of particular importance within the OHS Act are sections 7 (Health and Safety Policy); 8 (General Duties); 9 (People not in employment who may be directly affected); 17 and 18 (Health and safety representatives); 19 and 20 (Committees) and the Major Hazard Installation Regulations proclaimed under this Act.

The prescriptions of the National Building Regulations (updated in 2008) and SANS 10400:1990 – Code of practice for the application of the National Building Regulations provides for safe buildings that will reduce vulnerability, increase resilience and therefore decrease disaster risk.

Further legislation that requires commerce and industry as well as government to actively pursue disaster risk reduction includes the National Environmental Management Act (NEMA), the Mineral Resources Act, and the National Veld and Forest Fires Act that regulate the establishment of Fire Protection Associations (FPAs).

In summary it can be said that there is a clear need and legal foundation for all organs of state and the private sector to assess their disaster risk, to address this risk through mitigation actions, and to be prepared to respond to major incidents and disasters affecting them.

2.3.4 ANDM current compliance with the Disaster Management Act

According to the Disaster Management Act ((No 57 of 2002), the ANDM is required to have the following established:

- A Disaster Management Framework (Section 42 of the Act);
- A Disaster Management Plan (Section 53 of the Act);
- A Disaster Management Centre (Section 43 of the Act);
- An appointed Head of the Disaster Management Centre (Section 45).

The four Local Municipalities are legally only required to have a Disaster Management Plan. A Disaster Management Advisory Forum is not required at District or Local level but is recommended best practice (Section 51 of the Act).

Table 2 describes the current status quo of compliance of the ANDM and the Local Municipalities within the District with the requirements of the Disaster Management Act. The information in the table is based on personal interviews with Disaster Management staff or role-players in each Local Municipality. Presently only Umzimvubu have a DM Plan however, the plan has not been approved by the Council. Council approval is a necessity if the plan is to inform the IDP process of the Local Municipalities.

The Requirements of the Disaster Management Act are listed in the top row of the table. The priority of each requirement is then indicated, and this priority emanates from whether the requirement in the Act is a "must" or a "may", in other words compulsory or optional. For example, a Framework is compulsory for a District Municipality but optional for a Local Municipality. The status for each requirement is also indicated. The status is dependent on the priority of the requirement and indicates non-compliance, progress or compliance with requirements, be these requirements compulsory or optional.

Although Local Municipalities are not legislatively required to have specific Disaster Management coordinating structures, it is unlikely that a local municipality would be able to effectively conduct a participative Disaster Management planning process in the absence of some or other Disaster Management coordinating structure

within the municipality. It is recommended that each Local Municipality should at least have an internal Disaster Management coordinating body such as an Inter-Departmental Disaster Management Committee. The additional establishment of an advisory forum is strongly recommended to co-ordinate Disaster Management policy within the municipality and enable stakeholder involvement in Disaster Management matters.

Disaster Management has become one of the key components of an IDP's credibility. Section 26(g) of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) lists 'applicable disaster management plans' as core components of an IDP. The next section focuses on the relationship between Disaster Management and the IDP.

Table 2: Status of compliance with Disaster Management Act within Alfred Nzo District

District / Local Municipalities	Disaster Management Framework (Section 42)		Disaster Management Plan (Section 53)		Advisory Forum (Section 51)		Disaster Management Centre (Section 43)		Head of Disaster Management Centre (Section 45)	
	Priority	Status	Priority	Status	Priority	Status	Priority	Status	Priority	Status
Alfred Nzo District Municipality	Must	Yes	Must	Yes	May	Yes	Must	Yes	Must	Yes
Umzimvubu Local Municipality	May	No	Must	Yes	May	Yes ¹	May	Yes ²	May	No
Matatiele Local Municipality	May	No	Must	No	May	Yes ¹	May	Yes ²	May	No
Mbizana Local Municipality	May	No	Must	No	May	Yes ¹	May	Yes ²	May	No
Ntabankulu Local Municipality	May	No	Must	No	May	Yes ¹	May	Yes ²	May	No

Notes:

1: Have own structures; partake in District Advisory Forum
2: Satellite Centre

Key:

	Priority
Must	Legal requirement
May	Best practice, not legal requirement

Status
Complying with legal requirement
Non-compliance with legal requirement
Compliance with best practice
Non-compliance with best practice

2.4 Linkage with the Integrated Development Plan of the Alfred Nzo District Municipality

The Systems Act defines the Integrated Development Plan to be the single, inclusive and strategic plan 'for the development of the municipality...'. The Disaster Management Plan has become one of the criteria for determining a credible IDP document. Thus, Disaster Management is being elevated from the periphery of planning into the core of determining the allocation of resources.

To ensure success the Disaster Management planning process involves:

- In the first phase of the Disaster Management planning process, as in the IDP process, communities and stakeholders are given the chance to indicate/highlight the problems they experience and to determine their priorities (community based risk assessment), with inputs from Disaster Management. The outputs of this phase are a list of the intolerably high risks, the high risks and the tolerable risks for each of the wards / clusters in the municipality.
- The intolerably high risks and the high risks are addressed in Phase 2 of the process. In this phase, the Advisory Forum, in conjunction with the technical task teams, will have to make recommendations on the most appropriate way(s) to address the intolerably high risks and the high risks, as well as, to ensure that project proposals are designed, which can be implemented.
- The tolerable risks are then addressed. The Advisory Forum, in conjunction with the technical task teams, must identify and recommend the minimum preparedness and contingency planning requirements to be in a position to address the tolerable risks.
- The Municipality, especially the IDP Manager and the Head of Disaster Management, has to make sure that the disaster risk reduction project proposals are in line with the objectives and the agreed strategies of the IDP of the Council.

2.4.1 Linkage with the Spatial Development Framework of the Alfred Nzo District

A Spatial Development Framework (SDF) is a prerequisite in terms of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000) and a core component of an IDP and 'must include the provision of basic guidelines for a land-use management system for the municipality'. An SDF is established by the Municipality for implementation within the District by all role-players.

The collectives of the social, political, economic and environmental elements that underpin present-day society are regarded as fundamental informants to an SDF in order for spatial planning to complement economic growth and development. A District SDF is an intervention at a critical planning level to facilitate progressive connectivity between activities in lower and higher order planning domains. Furthermore it is to be a proposal of spatial guidelines to take effect within the municipal area in order to direct future spatial interventions as a result of growth, development and policy and to reduce developmental disparities.

The IDP of the ANDM would be the key informant of the formulation process of the SDF. The IDP must accommodate the visionary statement of the Council that needs to direct all activities of all role-players that perform activities within the municipal area. Figure 5 illustrates the context of the Regional SDF in relation to other regional processes and subsequent products, but also with regard to the cyclical nature of the development agenda.

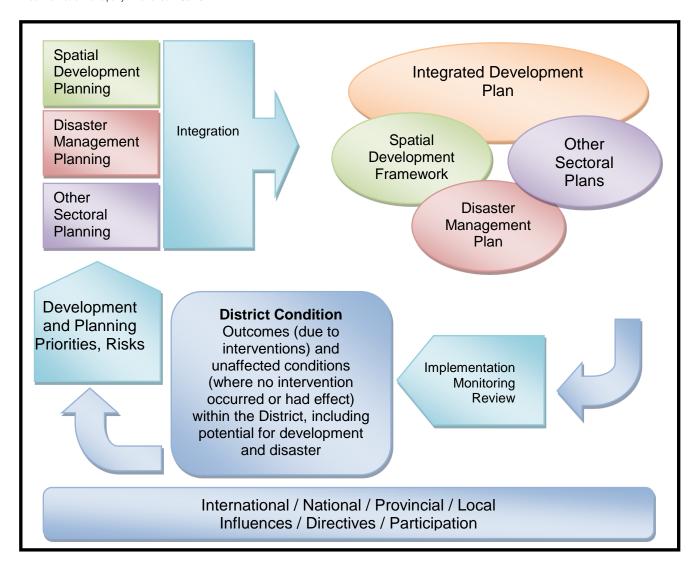


Figure 5: The Relationship between the SDF, IDP and Disaster Management Plan

2.4.2 The relationship between disasters and development

This section expands upon the relationship between disasters and development to illustrate why Disaster Management projects should be included within the development planning of a District Municipality, and why the planning and prioritisation of IDP projects in general should take disaster risk and the possible influence of the project on disaster risk into consideration.

It can be said that disasters and development have both a negative and positive relationship, and this relationship needs to be recognised and managed to achieve sustainable development. In a negative sense, disasters can destroy development and uncontrolled, improper development can cause disasters. In a positive sense, disasters can create an opportunity for improved, more resilient development, and proper development can reduce the risk of disasters occurring. Badly planned development in a floodplain increases disaster risk by making the new community vulnerable to flooding and thus disaster. The development of well-planned and effective flood defence measures can decrease the vulnerability of the community and thus contribute to disaster risk reduction. If a disaster actually occurs and major flooding impacts on the community, the development can be damaged or destroyed. If the lessons learnt from the flooding event are however incorporated in developing a new community outside the flood plain or if flood risk reduction is incorporated into the planning of a new community in the same setting, but this time from the outset, disaster risk reduction can also be achieved.

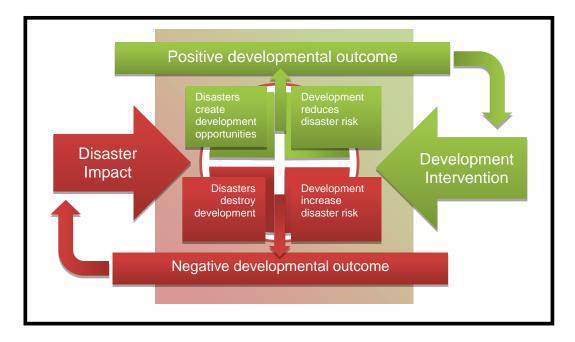


Figure 6: The relationship between disasters and development

In recognition of the possible negative or positive relationship between disasters and development, both the Municipal Systems Act and the Disaster Management Act requires the inclusion of a municipal Disaster Management plan in the IDP of municipalities.

2.4.3 Integrating development and Disaster Management planning

Based on the previous discussions of the relationship between Disaster Management, the SDF and the IDP, it is clear that the process for developing a Disaster Management plan should be integrated with the IDP process. Such a process is shown below. Figure 7 illustrates the planning process for the development of municipal Disaster Management plans as well as the integration of such plans into the integrated development plan of a municipality. It is recommended that long-term planning for future IDP cycles should include the Disaster Management planning steps indicated below.

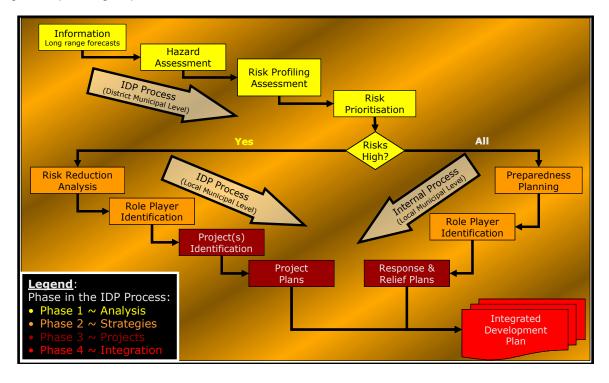


Figure 7: Planning Process for developing a DMP

The Municipal Systems Act and the Disaster Management Act requires the inclusion of the Disaster Management Plan of the Alfred Nzo District Municipality into the Integrated Development Plan (IDP) of the Municipality.

2.5 Structure of the ANDM Disaster Management Plan (DMP)

The Municipal DMP of the ANDM is based on the legal requirements described above and consists of the components as indicated in Figure 8. This structure is based on the requirements of the Section 53(2) of the Act, Section 3.1.1.2 of the NDMF, and the proposed outlay of a Disaster Management Plan from the Alfred Nzo District Disaster Management Framework. See SP: 13 Standards for Scoping of DRM Plans for ANDM

Several peripheral documents will support the DMP, the most important being the Risk Assessment Report. It is important to note that this plan is prepared at a strategic level for inclusion within the IDP process and can therefore not contain too detailed operational planning. Lower level and more specific plans are seen as supporting documents external to the plan.

In order to comply with the Policy Framework for Disaster Management in South Africa (NDMF), the ANDM DMP is structured around the four KPAs of the NDMF which is also reflected in the provincial and ANDM Disaster Management Frameworks.

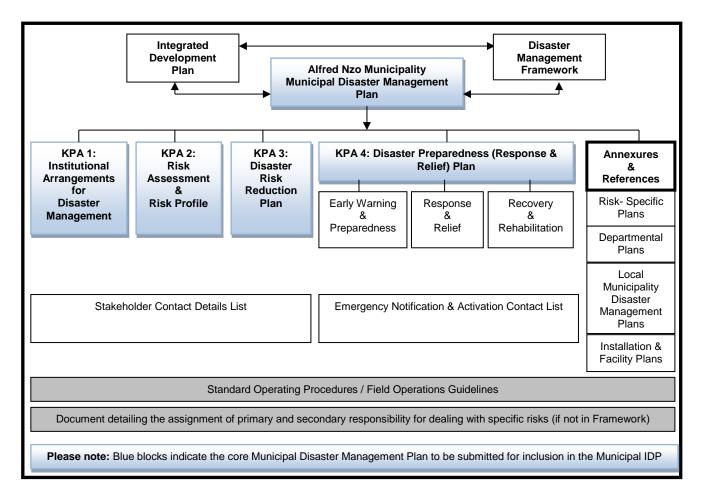


Figure 8: Structure of the Alfred Nzo Municipal Disaster Management Plan

The seven key components of the plan are:

- KPA 1: Institutional arrangements for Disaster Management (Institutional Capacity)
- KPA 2: Risk Assessment and Risk Profile
- KPA 3: Disaster Risk Reduction
- KPA 4: Disaster Preparedness (Response & Relief) Plan
- Enabler 1: Information Management and Communication;
- Enabler 2: Education, Training, Public Awareness and Research; and
- Enabler 3: Funding Arrangements for Disaster Management.

Each of these key components will be discussed in more detail in Section 3.

Review findings

The other three elements of the plan have not been included i.e. Enablers 1, 2 and 3 have not been included in the plan.

Proposed action or change

The 3 enablers have been included in Figure 8 above and added as key components to the plan. This has been done in the paragraph above.

Plans for the three Enablers have been included under the relevant sections i.e. sections 7, 8 and 9.

3 KPA 1: INSTITUTIONAL CAPACITY

This section describes the planning for institutional capacity for Disaster Management within the ANDM in accordance with KPA 1 of the NDMF. Subsequent to the addition of Mbizana and Ntabankulu to the ANDM after the 2011 local government elections, the new local government dispensation had a marked influence on the required institutional arrangements for Disaster Management within the District and affects the risk profile of the District.

3.1 Current Institutional Arrangements within ANDM

The ANDM is composed of a political structure (Council) consisting of proportional and ward councillors, supported by an administrative structure of officials. The Council elects a Mayor who appoints a Mayoral Committee with defined responsibilities collected into portfolios for members of the Mayoral Committee as illustrated in the figure below.

The ANDM appointed a Head of Disaster Management 1 August 2014 and the DM function now resides within the Community Development Department and reports directly to the Senior Manager: Community Services. See SP 4: Parameters for appointment of HOC and KPAs for DRM in the ANDM.

Within the framework of the Constitution, the White paper on Local Government (1998) establishes the basis for a new developmental local government system which is committed to working with the citizens, groups and communities to create sustainable human settlements which provides for a decent quality of life and meet the social, economic and material needs of communities in a holistic fashion. Developmental local government is focused on working with local communities to find sustainable ways to meet their needs and improve the quality of their lives. This is realisable through the IDP. Each of the local municipalities situated within the District also have their own political and administrative structures. There are four Disaster Management staff allocated to the local municipalities - one in each of Umzimvubu, Mbizana, Ntabankulu and Matatiele. There are also two administrative staff at each satellite centre.

While there is evidence of a lack of human resources dedicated to Disaster Management within the ANDM, it is not easy to correct such a shortage over the short term. A phased approach of increasing dedicated Disaster Management would be a more realistic recommendation. The ANDM Disaster Management Centre is located in the Fire Brigade offices in Mount Ayliff, with satellite offices in Mount Frere, Maluti, and Ntabankulu and an available lot in Bizana.

Emergency preparedness within the District is a challenge however mutual aid agreements with adjoining district or metropolitan municipalities can improve emergency preparedness and is in the process of being compiled for approval by the various councils.

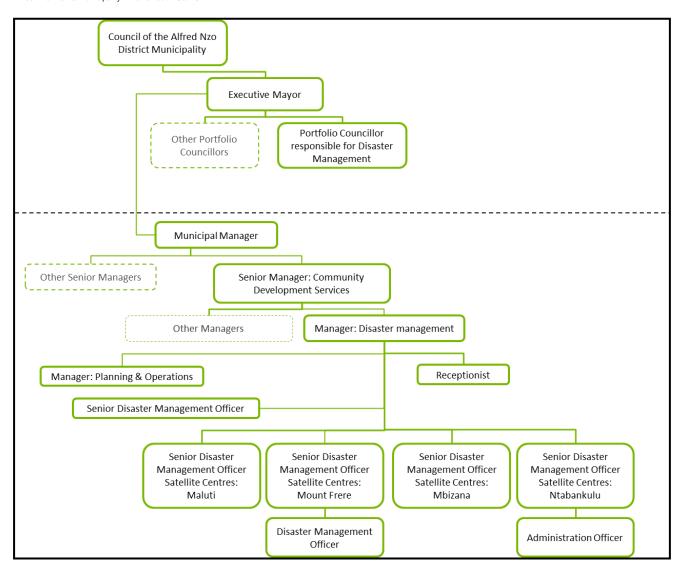


Figure 9: The 2012 placement of Disaster Management within ANDM

Fire and Rescue service within the District are performed on District Level. Matatiele, Bizana, Ntabankulu and Mount Ayliff currently have limited veld fire capacity.

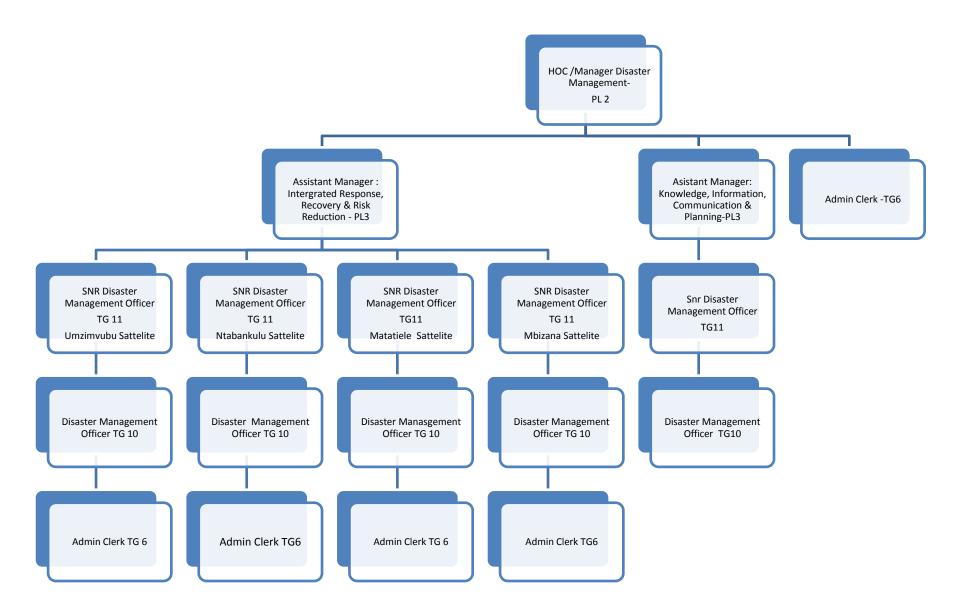


Figure 10: ANDM Disaster Management Structure 2014

Experience has shown that disasters do not respond well to individual effort, therefore it is important to have an inclusive approach to Disaster Management, where all role-players and stakeholders work together with Disaster Management officials to reduce disaster risk. The need to spread the responsibility for Disaster Management wider than the a few incumbents within the ANDM is a necessity, and is based on the idea that there is a shared responsibility for Disaster Management.

3.2 Shared responsibility for Disaster Management

The responsibility for reducing disaster risk, preparing for disasters, and responding to disasters is shared among all departments and employees of the ANDM, Local Municipalities within the District Municipality, all departments and employees of the ANDM, all provincial and national organs of state operating within the ANDM, all sectors of society within the District Municipality and, perhaps most importantly, all the residents of ANDM.

3.2.1 Key outcomes of the Disaster Management Plan

The DMP of the ANDM seeks to achieve the following key outcomes:

- Integration of Disaster Management into the strategic and operational planning and project implementation of all line functions and role players within the municipality;
- Informing planning and allocation of resources by municipalities to enable the reduction of community vulnerability;
- Resilient communities;
- An integrated, fast and efficient response to emergencies and disasters by all role-players.

3.2.2 Focal points for Disaster Management

Although the municipal department within the ANDM assigned with the Disaster Management function should direct and facilitate the Disaster Management process, it cannot perform the whole spectrum of Disaster Management activities on its own. Disaster Management is everybody's business. It is therefore recommended that each municipal department within the District Municipality and each Local Municipality within the ANDM assign a person or section within the department / Local Municipality to be the focal point for Disaster Management activities in that department / Local Municipality. The same applies to national and provincial departments operating within the municipality. The Disaster Management activities to be performed within departments and local municipalities include participation in disaster risk reduction as well as preparedness and response.

<u>Action</u>: The Disaster Management Centre of the ANDM will circulate forms on an annual basis requesting roleplayers to indicate their focal points for Disaster Management. The forms shall provide space for indicating the department, position and full contact details (also after hours) of the focal point and at least one alternate contact person.

See Appendix C 2 and SP 7

Review findings

Contact details of the appropriate people are being kept up to date, but not all focal points have been formally appointed.

Proposed action or change

Ensure that all appointments are formally made.

3.2.3 Departments with primary responsibility for specific hazards and disaster risks

Where a department has primary responsibility for a specific hazard, the department's role in Disaster Management for that specific hazard will be more than mere participation: it will have to lead risk reduction as well as preparedness activities due to its expertise in the field. Section 3.3 describes the responsibilities of specific departments within the District in terms of Disaster Management. ANDM Disaster Management can support such a department with advice, information, facilitation and coordination.

<u>Action</u>: ANDM Disaster Management will maintain a list of hazards that may affect the municipality with associated primary role-players indicated for risk reduction as well as preparedness for each specific hazard. (See next section for the process of assigning such responsibility.)

_					
R	ΔW	fin	M	n	ae

Primary role-players for identified hazards have not been assigned.

Proposed action or change

Implement the above action as recommended.

The plans for disaster risk reduction and preparedness compiled by these primary role-players should be attached to this plan or should be referenced as supporting documentation as indicated in Figure 8: Structure of the Alfred Nzo Municipal Disaster Management Plan. These documents must be easily accessible to all relevant role-players.

3.2.4 Assignment of responsibility to deal with specific disaster risks

Departments that are responsible for specific services in normal conditions will remain responsible for such services during disasters. The declaration of a state of disaster and the tighter co-ordination instituted during disasters does not absolve any agency of its assigned responsibilities.

Legislation assigns responsibility for most disaster risks to specific departments or functions. There are however grey areas related to some disaster risks, for example there may be some debate around who should be the lead agent for a hazardous materials incident that involves crime / terrorism and injured persons. In order to ensure clear roles and responsibilities and enhance integrated Disaster Management efforts, such grey areas must be addressed and clearly assigned responsibilities must be confirmed.

<u>Action</u>: The risk profile of the ANDM will be considered by the ANDM Disaster Management Advisory Forum and primary and supporting role-players will be identified for each identified risk. Such allocation of primary and supporting roles will be done in consultation with all relevant role-players, will be informed by existing legal frameworks, and assignment will be done on a consensus basis.

Review findings

No primary and supporting role-players have been identified for risks.

Proposed action or change

Implement the above action as recommended.

The above assignment of responsibilities will be revisited and confirmed on an annual basis, and will be recorded and distributed in the format indicated in Appendix C 4.

The assignment of responsibility for specific hazards or disaster risks will be informed, but not determined, by the assignment of responsibility for risks within the National Disaster Management Advisory Forum. The conditions prevailing within the District will be the determining factor. The number and responsibilities of task teams under the Advisory Forum will be determined by the priority disaster risks identified within the District. This is discussed under the Advisory Forum later in this document.

3.3 The Alfred Nzo Municipality Disaster Management Structure

See SP 3: Criteria for establishing and operational functioning of the DM Centre in ANDM

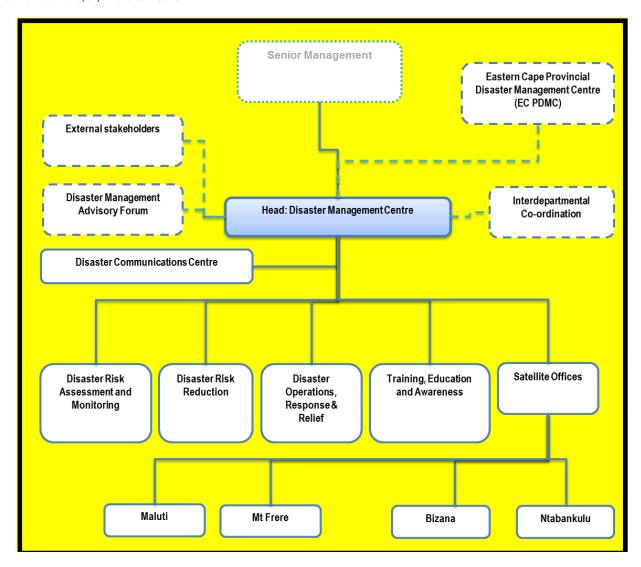


Figure 11: Suggested design for the DMC

3.3.1 Alfred Nzo District Disaster Management Advisory Forum

The ANDM DMAF was established during September 2012.

3.3.2 Interdepartmental Disaster Management co-ordination

See SP 7: Establishment and Functioning of the ANDM MIDRMC and Appendix C 3

Internal co-ordination will occur at managerial level where instructions and identified projects from the Advisory Forum can be implemented and tracked. Municipal top-management meetings can serve as a co-ordination forum or Steering Committee for Disaster Management issues within the Municipality. Although a dedicated structure can be created for this purpose, this role will be performed by the top-management team of the Municipality to reduce the complexity of the Disaster Management structure. Ad-hoc external representation may form part of the deliberations upon invitation.

Action: The ANDM will consider the establishment of a dedicated body for interdepartmental Disaster Management co-ordination, or will assign this responsibility to the top-management team (of officials) of the Municipality.

	Review findings
	The ANDM MIDRMC has not been established
	Proposed action or change
Ī	Consider establishing the ANDM MIDRMC or assign the responsibility elsewhere: See Appendix C 3

3.3.3 Focal points for Disaster Management within municipal departments

Refer to section 3.2 above.

3.3.4 Departmental planning groups

This element relates to planning groups that can be established within departments within the Municipality to deal with internal Disaster Management issues such as the compilation of departmental or local municipal Disaster Management plans and contingency plans for facilities and services of the department or Local Municipality. The Disaster Management focal points of such departments or Local Municipalities will be involved in these planning groups. In a less complex design these groups can be integrated with others to become technical task teams.

<u>Action</u>: Focal points will be empowered and supported by their departments / organisations to establish, manage, and participate in departmental and/or Local Municipal planning groups.

Review findings

Not all focal points have officially been appointed and the planning groups have not been established

Proposed action or change

Implement the above action as recommended.

3.3.5 Risk reduction project teams

These are multi-disciplinary project team convened to address and reduce a specific disaster risk. The teams are convened by the primary role-player for the risk and supported by Disaster Management. In a less complex design these teams can be integrated with others to become technical task teams.

<u>Action</u>: The primary role-players for specific hazards or disaster risks, in collaboration with Alfred Nzo Disaster Management, will establish and manage risk-reduction project teams as required or when requested by the Disaster Management Advisory Forum. (Existing structures should be used as far as possible to prevent duplication and reduce the meeting burden on role-players.)

Review findings

No risk reduction teams have been established.

Proposed action or change

Implement the above action as recommended.

3.3.6 Preparedness planning groups

A multi-disciplinary planning group convened to ensure a high level of preparedness for a specific disaster risk. Convened by the primary role-player for the risk and supported by Disaster Management. In a less complex design these groups can be integrated with others to become technical task teams.

<u>Action</u>: The primary role-players for specific hazards or disaster risks, in collaboration with Alfred Nzo Disaster Management, will establish and manage preparedness planning groups as required or when requested by the Disaster Management Advisory Forum. (Existing structures should be used as far as possible to prevent duplication and reduce the meeting burden on role-players.)

Review findings

No preparedness planning groups have been established.

Proposed action or change

Implement the above action as recommended.

3.3.7 Joint response & relief management teams

Mostly flowing from a preparedness planning group, this is a team that is mobilised to deal with the immediate response & relief required during or immediately after major incidents and disasters. Such teams will normally

convene in the Disaster Operations Centre (see description below). In a less complex design these teams can be integrated with others to become technical task teams.

<u>Action</u>: The preparedness planning group for each hazard will detail how the activation of a joint response and relief management team for that specific hazard will be managed, and who will form part of the team.

Review findings
No preparedness planning groups have been established.
Proposed action or change
Implement the above action as recommended.

3.3.8 Recovery & rehabilitation project teams

These are project teams managing recovery and rehabilitation after disasters, mostly on a project-management basis. Disaster recovery and rehabilitation must focus on risk elimination or mitigation. Departments who are responsible for the maintenance of specific infrastructure are also responsible for the repair or replacement of such infrastructure after disasters. In a less complex design these teams can be integrated with others to become technical task teams.

<u>Action</u>: The preparedness planning group for each hazard will detail how the activation of recovery and rehabilitation project teams for that specific hazard will be managed, and who will form part of the teams.

Review findings				
No recovery and rehabilitation project teams have been established.				
Proposed action or change				
Implement the above action as recommended.				

3.3.9 Technical Task Teams

The Disaster Management Act, Sections 44 and 47, call for a co-ordinated approach for prevention and mitigation that encourages risk-avoidance behaviour by organs of state, the private sector, on-governmental organisations, communities, households and individuals in the municipal area. Thorough Disaster Management planning, refer Sections 52 and 53 of the Disaster Management Act, and effective co-ordination is the key to saving lives and limiting damage to property, infrastructure and the environment. This is also necessary for the optimal utilization of available resources. The following four task teams will ensure hazard specific research, risk prevention and reduction, mitigation and preparedness measures:

- **Natural Hazards**: This task team will consider all potential geological and hydro meteorological hazards that can manifest in the Alfred Nzo District Municipality e.g. earthquake, floods, severe storms and drought;
- Biological Hazards: Strictly speaking biological hazards form part of the natural hazard grouping, but
 due to the expert scientific knowledge needed for human, fauna and flora disease identification and
 control this must be handled as a separate task team. Examples include typhoid fever, rabies, TB and
 influenza strains:
- Environmental Degradation: This task team will study and analyse processes induced by human behaviour and activities (sometimes combined with natural hazards), that damage the natural resource base or adversely alter natural processes or ecosystems. Such processes, if not altered, will negatively impact on sustainable livelihoods and the continued use of natural resources and examples include water, air and soil pollution;
- Technological Hazards: This task team will evaluate the danger originating from technological or industrial accidents, dangerous procedures or certain human activities, which may cause the loss of life or injury, property damage, social and economic degradation. Examples include dam failure, road / rail / aircraft accidents and hazardous materials spills.

<u>Methodology:</u> All identified hazards must be evaluated and prioritised according to the methodology contained in the risk assessment chapter in that each identified hazard will be assessed in term of its probability and severity of occurring, manageability and vulnerability.

Each task team must identify a lead agency and or department and the enabling agencies or departments that will assist with the assessment of the identified hazards. The task teams must ensure the identification of

resources needed to address the potential threat of hazards. This refers to capacity (material resources) and capability (trained individuals) to ensure that risk reduction initiatives are put in place. The respective task teams must operationalise the plans and evaluate the success of implemented measures.

Written reports regarding activities must be submitted to the Head of the ANDMC who in turn will submit it to the Alfred Nzo Disaster Management Advisory Forum. In the case of large incidents or threatening or realised disasters the respective technical task teams will advise the ANDM Disaster Management Centre on appropriate actions and management requirements.

Review findings

There are presently only four separate TTTs established. Emergency Response & Social Relief TTT. See Appendix G 2: Register of TTT's for the list of the only four TTT's presently established None of the hazard specific TTT's mentioned above have been established.

Proposed action or change

The four hazard specific TTT's mentioned in section 3.3.9 above need to be urgently established.

A TTT for Policy Development needs to be established. See Appendix A.

A TTT For Information Management and another TTT for Emergency Communications must be established. See Appendixes L and H.

3.3.10 Alfred Nzo Disaster Management Communications Centre

This is the centre providing 24-hour emergency and essential services contact points to the public within the municipal area. The Centre is responsible for day-to-day emergency response by municipal departments and for the establishment of strategic communication links. The Alfred Nzo Disaster Management Communications Centre will liaise closely with the Emergency Control Centres / Groups of the Local Municipalities and other stakeholders within the ANDM on an on-going basis. It would be possible to reduce costs and increase interservice collaboration by combining the responsibilities and functions of district-wide emergency services, fire control centres and law enforcement control centres in one facility with the Disaster Management Communications Centre.

<u>Action</u>: Alfred Nzo Disaster Management will establish and maintain a fully staffed and resourced Disaster Management Communications Centre and if required collaborate with other agencies to maintain 24-hour per day, 7 days per week public emergency call-taking capacity.

Review findings

This service has been established

3.3.11 Alfred Nzo Disaster Operations Centre (DOC) / Joint Operations Centre (JOC)

The ANDM DOC is a facility equipped to serve as command and co-ordination centre during disasters, where the joint response & relief management team will convene. Alternative facilities should be identified as back-up to the primary DOC. The term JOC for Joint Operations Centre can also be used for this facility.

Action: Alfred Nzo Disaster Management will identify, establish and maintain a fully staffed and resourced Disaster Operations Centre for activation as required and will identify fall-back or alternative facilities for the same purpose. Figure 12 illustrates how the components described above would interact with each other. It is important to note that this is a proposed organisational structure, but rather a proposal in terms of lines of communication and collaboration.

Review findings

This JOC has been established in the past and can be activated as and when required.

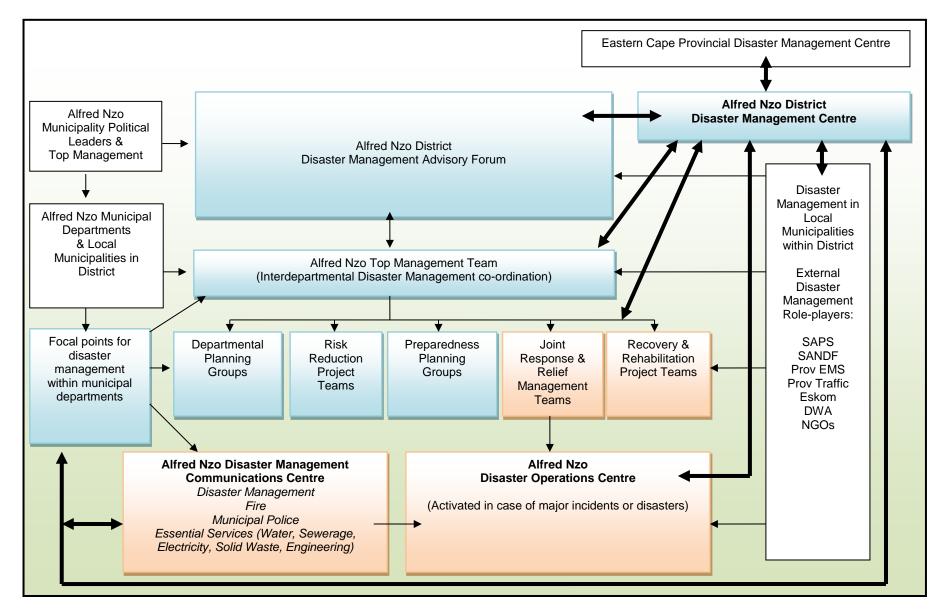


Figure 12: District Disaster Management Coordination and Collaboration

3.3 Institutional Responsibilities

The main ANDM stakeholders have specific responsibilities with regards to disaster prevention/risk elimination projects and disaster response scenarios. The primary objective of each municipal stakeholder must be to contribute, from their specific areas of expertise, to the prevention of the occurrence of emergencies or disasters that threaten life, property, the environment or economic activity in the ANDM in keeping with Chapter 5 and Section 52 of the Disaster Management Act.

The institutional responsibilities are described in Appendix B 2.

Management responsibilities include information management, which is an important aspect of institutional capacity.

3.4 Information Management

This section must be read in conjunction with Enabler 1 in Section 7 below.

Review findings

This section has been moved to Appendix L Information Management and Communication System and Appendix H Emergency Communication Network

In the next chapter the disaster risk profile of the ANDM will be discussed.

4 KPA 2: RISK ASSESSMENT

Disaster risk assessment is the first step in planning an effective disaster risk reduction programme. A Disaster Risk Assessment examines the likelihood and outcomes of expected disaster events. This includes investigating the related hazards and conditions of vulnerability that increase the chance of loss. The risk assessment done for the purpose of this Disaster Management Plan included a literature review, the identification and consulting of sources of historic information, and workshops and focus groups with subject specialists and Disaster Management stakeholders within each of the Local Municipalities within the District.

See SP 11: Template for the development of Specifications required to Commission a Risk Assessment for the District Municipality and SP 12: Terms of Reference for the Establishment and Functioning of Technical Advisory Committees for ANDM.

4.1 Risk Profile of the Alfred Nzo District Municipality

Various disaster risks have been identified and assessed during 2009 to 2011, as set out in detail in the various Risk Assessment Reports^{4,5}. The guidelines accompanying this document describe the risk assessment methodology. Parallel to this risk assessment that was performed in Umzimvubu and Matatiele, a risk assessment was performed in Mbizana and Ntabankulu local municipalities as well.

The first step in developing a risk profile is hazard identification. A hazard is a potentially damaging physical event, phenomenon or human activity, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards are typically categorised into Natural, Technological and Environmental hazards.

Natural hazards are natural processes or phenomena occurring in the biosphere that may constitute a damaging event. Natural Hazards are typically classified into:

- Geological Hazards: Natural earth processes or phenomena in the biosphere, which include geological, neo-tectonic, geo-physical, geo-morphological, geo-technical and hydro-geological nature.
- Hydro Meteorological Hazards: Natural processes or phenomena of atmospheric, hydrological or oceanographic nature.
- Biological Hazards: Processes of organic origin or those conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins and bioactive substances.

Technological hazards constitute danger originating from technological or industrial accidents, dangerous procedures or certain human activities, which may cause the loss of life or injury, property damage, social and economic degradation.

Environmental hazards are processes induced by human behaviour and activities (sometimes combined with natural hazards), that damage the natural resource base or adversely alter natural processes or ecosystems.

To identify the typical hazards in the ANDM, a checklist was compiled which was completed by all municipalities during the consultative workshops. These checklists were returned to the Project Team listing the hazards as indicated in Table 3.

⁴Disaster Risk Assessment Report. 2011. Final Report prepared for the OR Tambo District Municipality. November 2011.

⁵Towards a Disaster Management Plan for the Alfred Nzo District Municipality. 2011. Disaster Risk Assessment, Version 1.0. March 2011.

Table 3: Identified hazards in Alfred Nzo District Municipality

Natural Hazards						
Hydro Meteoro	logical Hazards					
Drought	Hail storms					
Erosion	Severe storms					
Fire	Violent wind					
Flood	Snow					
Lightning	Loss of Biodiversity					
Extreme Temperatures	Oceanographic (tsunami, storm surge)					
Biologica	Hazards					
Human Diseases: Swine Flu, Measles, Rabies, TB, HIV/AIDS, Flu	Animal Diseases: Rabies (Animals), Foot and Mouth					
Plant Diseases	Infestations					
Geologica	al Hazards					
Earthquake	Subsidence					
Landslides	Rockfalls					
Technological Hazards						
Sewerage and drainage Infrastructure failure	Structural failure (bridges, dams, building)					
Road accidents	Service Delivery Failure (electrical, IT, sanitation, transport, water)					
Illegal Dumping						
Hazardous material by road (spillage, explosions)						
Industrial accidents						
Environmen	ntal hazards					
Air pollution	Water pollution					
Land Pollution (Soil contamination)						
Social I	nazards					
Civil Unrest	Major Events (religious, cultural, political)					

The table above illustrate the types of disasters that pose disaster risk within the ANDM and their possible effects. The communities at risk can be derived from the risk lists, and are also shown in the risk assessment that was conducted for the area.

More detailed risk descriptions, inclusive of hazards, vulnerability and capacity descriptions are available in the respective detailed risk assessment documents⁶⁷. See Appendix F 6.

⁶ Alfred Nzo District Municipality Risk Assessment Report. 2011.

⁷Disaster Risk Assessment Report. Final Report for the OR Thambo District Municipality. 2011.

4.1.1 Risk Summary

In this section the results of the risk assessment conducted within the ANDM are summarised.

The table below provides a district-wide view of which hazards were found to be most prevalent within the district, influencing the majority of local municipalities.

Natural Hazards							
Hydro Meteorological Hazards							
Drought	Hail storms						
Erosion	Severe storms						
Fire	Violent wind						
Flood	Snow						
Lightning	Loss of Biodiversity						
Extreme Temperatures	Oceanographic (tsunami, storm surge)						
Biologica	l Hazards						
Human Diseases: Swine Flu, Measles, Rabies, TB, HIV/AIDS, Flu	Animal Diseases: Rabies (Animals), Foot and Mouth						
Plant Diseases	Infestations						
Geologica	al Hazards						
Earthquake	Subsidence						
Landslides	Rockfalls						
Technological Hazards							
Sewerage and drainage Infrastructure failure	Structural failure (bridges, dams, building)						
Road accidents	Service Delivery Failure (electrical, IT, sanitation,						
Illegal Dumping	transport, water)						
Hazardous material by road (spillage, explosions)							
Industrial accidents							
Environmer	Environmental hazards						
Air pollution	Water pollution						
Land Pollution (Soil contamination)							
Social I	nazards						
Civil Unrest	Major Events (religious, cultural, political)						

Table 4: ANDM Common Hazards

Review findings

The present DM Plan review included a process of identifying the priority hazards and disaster risks and the findings are set out below:

IDENTIFIED HAZARDS

List of Hazards identified by stakeholders in Mbizana, Matatiele, Ntabankulu, Umzimvubu and the Alfred Nzo District at the data gathering community workshops on 2 – 4 September 2014.

Number	Hazards	Mbizana	Matatiele	Umzimvubu	Ntabankulu	District	
1	Veld/forest fires	X P=2	X P=1	X P=2	X P=4	X P=1	
2	Structural fires	Х	Х	Х	Х	Х	

3	Floods: river	Χ		Х		X		X		Χ	
	Extreme weather;	Х		X	P=4	X	P=1	X	P=1	Х	P=3
4	Hail, high winds										
5	Snow	Χ		Х						Х	
6	Soil erosion	Х				Х		Х			
7	Drought	Х		Х		Х					
8	Motor vehicle accidents	Χ	P=1	Х	P=3	Х	P=3	Х		Х	P=2
9	Bad roads	Χ		Х							
10	Mist	Χ									
11	Stray Animals on roads	Χ		Х						Х	
12	Meat poisoning	Χ				X					
13	Wild pigs damage crops	Χ								Χ	
14	Air pollution	Χ									
15	Human diseases	Χ	P=4	Х	P=2	Х		Х		Х	
16	Stock theft	Χ	P=3	Х	P= 3	Х	P=4	Х	P=3	Χ	
17	Ground water pollution	Χ								Χ	
18	Drug abuse	Χ	P=5	Х							
19	Domestic violence	Χ									
20	Male circumcision	Χ				Х		Х	P= 5	Χ	P=4
21	Teenage pregnancy	Χ		Х		Х	P=5				
22	Sexual assault: rape	Χ		Х							
23	Herbal intoxication	Χ		Х	P=5						
24	Suicidal attempts (tank pill)	Χ									
25	Drought leading to starvation	Х		Х							
26	High unemployment	Χ		Х							
27	Mist	Χ									
28	Assaults	Χ									
29	Alien plant infestation	Χ								Х	
30	Shortage of nurses and doctors	X									
31	Abortions	Χ									
32	Spillages	Χ								Х	
33	Child abuse	Χ									
34	Animal diseases			Χ							
35	Xenophobia			Χ							
36	Illegal border crossings			Χ		Х				Χ	P=5
37	Violent protests					Χ		Х		Χ	
38	Deforestation					Χ				Χ	
39	Sewerage spillage					X					
40	Lack of clean water					Х		X	P=2		
41	Mud flows/road falls									Χ	

P = Priority

Summary of findings

The hazards classified as high identified across the ANDM:

	2014	2011
1.	Veld/forest fires	Flash floods
2.	Extreme weather; Hail, high winds etc.	Severe storms including lightning/thunderstorms and hailstorms
3.	Motor vehicle accidents	Groundwater pollution
4.	Stock theft	Sewerage/drainage spillage
5.	Human diseases: TB; HIV; cholera	Water pollution
Propos	ed action or changes	

It is recommend that ANDM focus on the 5 priority hazards, develop risk reduction plans, integrate into IDPs and develop response plans where after ANDM can develop and implement according to available capacity.

4.2 The dynamic nature of disaster risk

Although the utmost care was taken to ensure that all hazards were identified and risks assessed, it must be noted that some unforeseen risks, new to the area, may have been omitted. Risks change over time, as does the vulnerability of the community. It is also important to note that Climate Change was not included as part of this assessment. It is expected that Climate Change will increase the severity and frequency of extreme weather events, such as drought and severe storms. It is recommended that this phenomenon be closely monitored during the next few years and assessed as part of future Disaster Risk studies.

To address this recommendation in the 2012 DM Plan a study was completed on 27 March 2014 which highlighted the following as stated in the report:

Climate envelop modelling indicates that there is very likely to be a marked structural impact on the biomes of the Alfred Nzo District, with some expansion of the Coastal Belt inland, and major loss of Grassland areas to Savannas (initially in the lowlands, but later in all but the highest altitude areas). Although it is difficult to predict exact environmental response to the changing climate envelopes, it is clear that many systems (particularly the grassland areas), are likely to be under a great deal of pressure. Climate change impacts are likely to exacerbate impacts such as those related to poor range management.

These analyses are useful in terms of defining the context within which we have to adapt to climate change impacts. However, the key issues are around how we adapt and where we prioritize our adaptation activities based on:

- **Ecological infrastructure**. Which areas are important for helping people adapt and supplying key ecosystem services?
- The areas supporting climate change resilience. Which areas are important for the environment to adapt to climate change?
- A set of environmental priorities. Which areas are important for other environmental reasons?
- Social priorities. Where is there greatest social need for intact Ecosystem Services?

Based on these building blocks, the project identified the areas of overlap, where social need, biodiversity climate resilience and ecological infrastructure intersect. These areas are priority areas for Ecosystem-based Adaptation to climate change impacts. It is critical that the climate adaptation programmes of the Alfred Nzo District ensure that these areas are

- (a) appropriately included into spatial planning instruments such as SDFs,
- (b) well managed through Natural Resource Management programmes, and
- (c) are the focus for broad-based landscape conservation interventions.

Although the current analysis represents a major step forward in our spatial understanding of the Alfred Nzo District, a number of the analyses require further refinement. In particular the social component requires refinement to ensure that there is a more general (e.g. using broader poverty indicators) assessment of social need, rather than only focussing on households with direct environmental dependency; and there needs to be a more nuance spatial assessment of the key natural and semi-natural areas required to deliver ecosystem services is needed.

The recommendations from the report as stated above must be considered when further addressing the impact of climate change in the ANDM district.

Review findings

A report on the impact of Climate Change has been completed and is available. Report Adapting to climate change in the Alfred Nzo District: Protecting Ecological Systems and Infrastructure that Enable Adaptation to Climate Change

Proposed action or changes

Consider the recommendations of the report for inclusion in disaster risk management planning.

4.3 Risk communication

The identification of risks and the description of such risks within official reports are of little help to the residents of the district if the information is not communicated to the relevant communities at risk so that they can be aware and prepared. Risk communication is an important part of disaster risk reduction and forms part of the information management and communication Enabler from the Policy Framework for Disaster Management in South Africa (NDMF).

Risk communication is indicated as the responsibility of the Disaster Management Centre in the NDMF and will be a Key Performance Area of the institutional capacity created for Disaster Management within the District. Lead departments for specific hazards will still remain responsible for risk communication within their specific fields of expertise. Risk communication may include public awareness and preparedness campaigns, more detailed and applied education and training, or drills and exercises. Marketing and public relations can be implemented towards improving public awareness. The results of this risk assessment forms a knowledge base from which risk communication materials can be produced.

(See Appendix L). <u>Action</u>: Risk communication responsibility will be assigned to a specific position within the Disaster Management Centre. See Appendix H: Individuals that form part of the Emergency Communications Network; and Appendix I: Descriptions of the Early Warning Systems.

Review findings

This responsibility has been assigned. However, There is no plan or formal reference to Enabler 1 in the present plan

Proposed action or changes

Each of the 3 Enablers needs specific plans and must be included under the relevant section of the amended plan. See Appendixes L; M1; M2; M3 and N.

4.4 Gaps and recommendations

The goal of this Disaster Management plan is to reduce disaster risk. The risks identified within this chapter and in the more detailed risk assessment report will be addressed in the following chapters and will need to be addressed with the full attention of the institutional capacity defined in the previous chapter.

A key recommendation is that the risk profile of the ANDM, as identified within this chapter must be maintained and regularly updated with additional risk assessments. The risk profile of the District must also be actively communicated to communities at risk to enable them to reduce their own vulnerability.

Review findings

These recommendations have been implemented however, no evidence was obtained on the active communication to communities at risk to enable them to reduce their own vulnerability.

Proposed action or changes

Document the detailed Early Warning Systems. See Appendix H: Individuals that form part of the Emergency Communications Network; and Appendix I: Descriptions of the Early Warning Systems.

4.5 Data collection for future risk assessment

Finding:

Additional needs for a dynamic disaster risk assessment and risk profiling system for ANDM disaster management were identified.

Recommendations:

- 1. Establish an interim Technical Advisory Committee to oversee and ensure continuous collection of the required risk assessment data. See Appendix F 1
- 2. Develop a methodology to conduct risk assessments as per SP: 11 See Appendix F 2
- 3. Develop ANDM risk assessment and profiling data requirements. See Appendix F 3
- 4. Identify and confirm ANDM GIS DM data layers currently included in the new dynamic Risk Profiling GIS model. See Appendix F 4.
- 5. Establish register of DM data custodians of ANDM DM data required. See Appendix F 5
- 6. Establish a Register of comprehensive and community-based risk assessments completed to date. See Appendix F 6.

5 KPA 3: DISASTER RISK REDUCTION

Disaster risk reduction involves focused activities to reduce vulnerability, increase capacity and resilience, and avoid or reduce hazards that may affect specific elements at risk.

Disaster risk reduction plans providing for prevention and mitigation strategies have been compiled based on best practice and capacity within the district.

5.1 Risk reduction process

The success of risk reduction efforts will rely heavily on the results of a thorough disaster risk assessment (hazard and vulnerability assessment). The completion of a detailed risk assessment is a prerequisite for this process. Community-based risk mapping and risk assessments can also provide valuable information to base risk reduction planning on. Using the risk assessment, the first step in risk reduction will be to identify priority risks. The disaster risk reduction planning process in operation in ANDM is contained in Appendix G 1.

Review findings
This risk reduction planning process for priority risks was not implemented
Proposed actions or changes
Implement the above plans as recommended and set out in Appendix G 1, with special emphasis on the

5.2 Risk reduction proposals for the Alfred Nzo Municipality

Risk reduction project proposals for priority risks are listed in Appendix G 1. The process to take risk reduction project proposals from identification to detailed project plans is summarised in sub-section 5.1 above. It is important that these proposals are shared with the relevant planning and implementing agencies. The risk-specific risk reduction project proposals listed in Appendix G 1 will, if properly planned and implemented, contribute towards the reduction of disaster risk within the ANDM.

Review findings
These projects listed in Appendix G 1 "Risk reduction planning process and risk reduction project register"
and the findings of the status of projects initiated is set out in the next review findings below

The risk reduction plans outlined in Appendix G 1 which are implementable must be considered for inclusion within the IDP projects of the Municipality and if included must be budgeted for in terms of the operating and capital budgets of the Municipality. Each project should be evaluated to determine which municipal department can lead its implementation. When a lead department is assigned through consensus in the ANDM DMAF, such a lead department must manage all planning and budgeting processes for said project. The Disaster Management function of the ANDM must assist in this regard.

Where the proposed project falls outside the mandate of the Municipality, the Municipality should establish a lobbying and monitoring mechanism to motivate the need for the project in the correct governmental or societal sector and to track progress on the project. It is anticipated that many projects will need to be executed on a partnership level, and in such cases the department of the Municipality responsible for service delivery partnerships should take the lead with support from the Alfred Nzo Disaster Management Centre.

	Review findings						
1	1. Of the 156 proposed risk reduction interventions and projects proposed in the 2012 DM Plan only 85 have been initiated. See project descriptions in Appendix G 1. Risk reduction process and project register.						
2	. R	isk reduction project summary:					
	1.	59 Fire related proposals	1	30 projects in progress			
	2.	41 Flooding related proposals:	2	22 projects in progress			
	3	31 Storm/ Severe weather related proposals	3	20 projects in progress			
	4	9 Ground water pollution related proposals	4	2 projects in progress			

5	6 Sewerage/Drainage related proposals	5	2 projects in progress
6	10 Water pollution related proposals	6	6 projects in progress
	Proposed action	ns	or changes

These tables have been from this section of the core planning framework to Appendix G 1: "Risk reduction process and project register" to allow for continuous updating and reporting to the TTTs and must be included as specific standing items on the ANDM DMAF Agenda. See Appendix G 2 Register of Technical task Teams. See SP 10 and the terms of reference for the ANDM DM Advisory Forum

5.3 Risk reduction capacity for the Alfred Nzo Municipality

The organisational structure for risk reduction within the municipality includes Alfred Nzo Disaster Management, Disaster Management representatives of each Local Municipality within the District, the ANDM DMAF, the top-management team of the ANDM, the focal points for Disaster Management within municipal departments within the Municipality, departmental planning groups, risk reduction project teams and preparedness planning groups. The total structure of the Municipality, with every member of personnel and every resource should also be committed to disaster risk reduction. On-going capacity building programmes will be required to ensure the availability of adequate capacity for risk reduction.

Review findings
These ongoing capacity building programmes have been implemented

5.4 Gaps and recommendations

The implementation of the project proposals contained within this chapter will, in all likelihood, require more project management capacity and personnel than what is available at this time. Even with active involvement from other departments and agencies who address the risk reduction projects that fall within their mandates, the ANDM would need to invest in additional human capital to actively pursue risk reduction and mitigation within the district. Interim measures could be to prioritise only specific aspects for risk reduction, and to implement only very specifically targeted risk reduction interventions, tailoring risk reduction projects to existing capacity. This concludes the discussion on Risk Reduction (KPA 3). The next section of the plan is committed to Response and Recovery (KPA 4).

Review findings
These recommendations have been implemented

5.5 Risk reduction initiatives to address response and recovery preparation needs

Finding and recommendation:

The following risk reduction and disaster response systems still need to be formalised.

- 1. Establish Mutual Aid Agreements. See Appendixes D1 (based on SP 5);
- 2. Establish a register for existing mutual aid agreements (cross border agreements) See Appendix D. Register for all mutual aid agreements within the province.
- 3. Establish agreements with provincial, national and international bodies. See Appendix E.
- 4. Appointment and training of volunteers. There is also a need for the drafting of a SP for Volunteers.

6 KPA 4: RESPONSE AND RECOVERY

Response and recovery is concerned with ensuring effective and appropriate disaster response and recovery by:

- Implementing a uniform approach to the dissemination of early warnings;
- Averting or reducing the potential impact in respect of personal injury, health, loss of life, property, infrastructure, environments and government services;
- Implementing immediate integrated and appropriate response and relief measures when significant events or disasters occur or are threatening to occur; and
- Implementing all rehabilitation and reconstruction strategies following a disaster in an integrated and developmental manner.

The first part of this section will focus on preparedness planning for priority risks, and the second part will describe an any-hazard response procedure. In the final part of the section, the declaration and classification of a disaster will be discussed.

6.1 Preparedness Plans of the Alfred Nzo District Municipality

Preparedness plans are compiled in order to enable fast and efficient response to predicted and unpredicted emergencies. Preparedness plans should be compiled for known priority risks. Risk-specific preparedness plan proposals for priority risks are listed in Appendix J: Preparedness Plans.

The risk-specific preparedness plans have been compiled based on the capacity assessment within the district as well as best practice.

Finding: There was no evidence found of a formal and standardised incident management system. **Recommendation:** The ANDM should adopt the National Disaster Management Centre's Incident Management System as has the Eastern Cape PDMC. See Appendix K: Incident Management System.

6.2 Preparedness capacity for the Alfred Nzo District Municipality

The organisational structure for preparedness within the Municipality includes Alfred Nzo Disaster Management, Disaster Management representatives of each Local Municipality within the District, the Disaster Management Advisory Forum, the top-management team of ANDM, the focal points for Disaster Management within municipal departments within the Municipality, departmental planning groups, preparedness planning groups, Joint Response & Relief Management Teams, Recovery & Rehabilitation Project Teams, and the Alfred Nzo Disaster Management Communications Centre. The total structure of the Municipality, with every member of personnel and every resource can potentially form part of preparedness capacity. On-going capacity building programmes will be required to ensure the availability of adequate capacity for disaster preparedness.

The Alfred Nzo Disaster Management Communications Centre is responsible for the operational procedures associated with day-to-day operational response to emergencies by municipal departments. The Alfred Nzo Disaster Management Communications Centre and the Alfred Nzo top-management team are jointly responsible for the emergency management policy framework and organisation that will be utilized to mitigate any significant emergency or disaster affecting the municipality.

6.3 Gaps and recommendations

The main gaps confronting the District within the preparedness arena relates to the number of personnel available for standby duties and the communication and monitoring facilities available to the district:

- The establishment of capacity to have a first and second-call person on duty at all times without exceeding the restrictions on working and standby hours contained in the basic conditions of employment act is core to ensuring the preparedness of the district; and
- The level of preparedness will also depend on training and experiential learning during operations and exercises.

It can therefore be recommended that the District should consider establishing a 24-hour monitoring and communications centre that can monitor emergency and essential services' communications and early warning information systems and identify developing emergencies and disasters so that appropriate response can be activated and deployed.

Review findings

These recommendations have been implemented.

6.4 Any-hazard Response Procedure

See Appendix J: Preparedness Plans

6.5 Declaration of a state of disaster and disaster classification

See SP 14: 'Standards for Conducting Disaster Impact Assessments' and SP 15: 'Mechanisms for the Classification and Declaration of Disasters'

6.6 Gaps and recommendations

A lack of communication and ineffective inter-agency co-operation are the most often experienced challenges in the response phase to major incidents and disasters. The any-hazard response procedure presented at the start of this chapter can address these challenges if all stakeholders are trained and experienced in the procedure and if positive relationships have been built between agencies. Training, exercises and drills will therefore increase capacity for response within the district. The ANDM would be well-advised to present a programme of drills and exercises that over time will exercise response to priority risks and thereby increase institutional capacity for risk reduction and disaster response.

Review findings

No evidence was found of any training, exercises or drills in respective plans and procedures for the priority risks

Proposed action or changes

- 1. A 12 to 24 month schedule of drills and reviews needs to be implemented through the Advisory Forum and a TTT could be considered just for this very important preparedness planning.
- 2. Note must be taken of the training and exercise requirements of the 10-Step Any-hazard Response Plan set out in Appendix J when undertaking this preparedness planning.
- 3. A formal incident management system must be implemented. See Appendix K

7 ENABLER 1: INFORMATION MANAGEMENT AND COMMUNICATION

This enabler covers the design, development and implementation of a comprehensive information management system (IMS) and an integrated emergency communication network (ECN), which establishes communication links with all disaster risk management role players and that complies with national requirements. The present ANDM DM Information Management and Communication system is described in Appendix L.

Details regarding the emergency communication network are attached as Appendix H.

Appendix L contains information regarding the IMS.

8 ENABLER 2: EDUCATION, TRAINING, PUBLIC AWARENESS AND RESEARCH (KNOWLEDGE MANAGEMENT)

Comprehensive mechanisms for education, training, public awareness and research (knowledge management,) supported by scientific research, must be developed and implemented. The main intention for establishing these knowledge management functions within the district is to promote a culture of risk avoidance amongst stakeholders and role players.

Appendix M 1 contains the district analysis of education, training and research resources and needs.

Appendix M 2 contains the district education, training and research framework for disaster risk management.

Appendix M 3 contains a register of provincial disaster risk management education and training programmes.

Appendix M 4 contains a strategic disaster risk management research agenda for the district.

9 ENABLER3: FUNDING ARRANGEMENTS FOR DISASTER RISK MANAGEMENT

Appendix N contains the funding plan for the district

10 TESTING AND REVIEW OF THE PLAN

The municipality will regularly review and update its plan, as required by Section 48 of the Disaster Management Act, 2002. The Disaster Management Advisory Forum (ANDM DMAF) shall be responsible for the review of the municipal Disaster Management plan on an annual basis. It is critical importance that especially the emergency response aspects of this plan be exercised at regular intervals. Table-top, walk-through and simulation exercises can be used to ensure that all role-players know what is expected from them in different emergency scenarios. It will be advisable to establish a comprehensive simulation exercise programme in the District.

The disaster risk management plan components captured in the Appendixes must be reviewed according to the schedule contained in Appendix O.

Review findings

- 1. The only review of the plan yet is the 2014 review.
- 2. There is no formal exercise programme for this plan

Proposed action or changes

- 1. The review process must be established and it must include criteria that needs to be reviewed
- 2. Sections of the whole planning framework need be reviewed as per the criteria and the review could be done over a 12 month period or on a fixed schedule to ensure the complete plan is reviewed over a 12 or 24 month period.
- 3. The same applies for exercising and testing the plans. Components or subsections of the plan can be tested quarterly or 6-monthly.

11 CONCLUSION

The inclusion of the ANDM DM Plan in the ANDM Integrated Development Plan (IDP)

A separate Disaster Management Plan included into the IDP but standing on its own and isolated from the rest of the IDP does not necessarily give evidence of the integration of Disaster Management into the IDP. All departments and role players submitting input to the content of the current and future IDP of the Municipality are therefore urged to consider the inclusion and integration of Disaster Management into their strategies, operational planning and project implementation.

It is strongly recommended that the ANDM institutes the compulsory consideration of Disaster Management in the planning and execution stages of all IDP projects. This will ensure the integration of Disaster Management into the IDP, and will ensure that all plans and projects are focused on contributing to disaster risk reduction and disaster preparedness – thus reducing the impact of disasters on lives, property, community activities, the economy and the environment in the ANDM.

Review findings

Although this was reported to have been implemented, no clear evidence could be found that disaster management is integrated into the IDP. No IDP project could be identified that is specifically included in the IDP to address disaster management planning, risk assessment, risk reduction or response and recovery.

Proposed actions or changes

There needs to be controls and reports from the relevant departments and other municipal entities represented at the ANDM DMAF by the focal points that disaster management is included into the different entities operational planning.

12 REFERENCE DOCUMENTS / BIBLIOGRAPHY

The following served as reference documents:

- Eastern Cape Disaster Management Policy Framework
- Alfred Nzo District Municipality Draft Disaster Management Framework
- Agricultural Disaster Management: Agricultural Drought Management Plan, Department of Agriculture, Aug 2007.
- Constitution of the Republic of South Africa, 1999.
- Disaster Management Act, 2002 (Act 57 of 2002)
- Policy Framework for Disaster Management in South Africa, 2005 (Government Notice 654 of April 2005: A Policy Framework for Disaster Management in South Africa)
- Fire Brigade Services Act (Act 99 of 1997) as amended.
- Fund Raising Act (Act No 107 of 1978) (FRA)
- Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).
- Major Hazardous Installations Regulations of the Occupational Health and Safety Act
- Disaster Risk Assessment Report. 2011. Final Report prepared for the OR Tambo District Municipality. November 2011.
- Road Traffic Act
- Social Assistance Act, 1992 (Act no 59 of 1992)
- Towards a Disaster Management Plan for the Alfred Nzo District Municipality. 2011. Disaster Risk Assessment, Version 1.0. March 2011.

Most important research publications bibliography:

Architectural Framework for Disaster Management Information Systems. Canada Centre for Remote Sensing. Ottawa, Ontario. 2004.

Benson,C; Twigg, J. 2004. "Measuring Mitigation". Methodologies for assessing natural hazard risks and the net benefits of mitigation – A scoping study. Provention Consortium. Available at: http://www.proventionconsortium.org/?pageid=37&publicationid=34#34

Charlotte Benson; John Twigg with Tiziana Rossetto. 2007. *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*. Provention Consortium. Available at: http://www.proventionconsortium.org/?pageid=37&publicationid=132

Colombo, Alessandro G.; Vetere Arellano, Ana Lisa. 2003. *Lessons Learnt from Forest Fire Disasters*. European Commission Joint Research Centre, Available at: http://www.preventionweb.net/english/professional/publications/v.php?id=1571

CONCERN. 2005. *Approaches to Disaster Risk Reduction.* Emergency Unit. Available at: http://www.concernusa.org/media/pdf/2007/10/Concern_ApproachestoDRR%20paper%20-%20final.pdf

Cuny, F.C. 1986. *Principles of Disaster management. Lesson 3: Information Management.* Available at: http://pdm.medicine.wisc.edu/Volume14/cuny.htm

EWCII. 2003. Early Warning of Wildland Fires. EWCII Conference October 2003.

Flood Preparedness Planning. Asian Disaster Management News. Vol 12 no 3, July – September 2006. Available at: http://sdmassam.nic.in/download/flood-preparedness.pdf

Fuerth, L. 1997. *Harnessing Information and Technology for Disaster Management*. The Global Disaster Information Network. Disaster Information Task Force Report. Available at: http://www.westerndisastercenter.org/DOCUMENTS/DITF_Report.pdf

Gupta, A. 2000. *Information Technology and Natural Disaster Management in India*. National Centre for Disaster Management. Indian Institute of Public Administration. New Delhi, India. Available at: http://www.gisdevelopment.net/aars/acrs/2000/ts8/hami0001pf.htm

Herath, S. 2006. *Geographical Information Systems in Disaster Reduction*. Institute of Industrial Science. The University of Tokyo. Japan. Available at: http://www.adrc.asia/publications/Venten/HP/Paper(Herath).htm

Marburger, J.H. Editor. 2005. *Grand Challenges for Disaster Management*. National Science and Technology Council. Committee on Environmental and Natural Resources. Available at: http://www.ostp.gov/pdf/sdr_grand_challenges_for_disaster_reduction.pdf

Mark Pelling, Andrew Maskrey, Pablo Ruiz and Lisa Hall. Editors. 2004. *Reducing Disaster Risk. A Challenge for Development.* UNDP. Available at: http://www.undp.org/cpr/whats_new/rdr_english.pdf

Rachel Roach; Seren Boyd. 2006. *Adapting to Climate Change. Challenges and Opportinites for the Development Community.* Tearfund. Available at:

http://www.tearfund.org/webdocs/website/Campaigning/policy%20and%20research/Adapting%20to%20climate%20change%20discussion%20paper.pdf

Tearfund 2006. Disaster Risk Reduction. Multi-Stakeholder Flood Mitigation in Malawi: A Case Study. Available at: http://tilz.tearfund.org/Topics/Disasters/Case+studies/DRR+Case+studies.htm

UNISDR. 2004. *Environmental Protection & Disaster Risk Reduction. A Community Leader's Guide.* ISDR/UNEP. Available at: http://www.preventionweb.net/english/professional/publications/v.php?id=8548

UNISDR. 2007. Drought Reduction Framework and Practices: Contributing to the Implementation of the Hyogo Framework for Action. Available at:

http://www.unisdr.org/eng/about_isdr/isdr-publications/10-drought-risk-reduction/drought-risk-reduction.pdf

UNISDR. 2007. Environment and Disaster Risk. Emerging Perspectives. ISDR/UNEP. Available at: http://www.unisdr.org/eng/about_isdr/isdr-publications/joint-pub/Environment_and_disaster_risk.pdf

UNISDR. 2008. *Linking Disaster Risk Reduction and Poverty Reduction. Good Practices and Lessons Learnt.* ISDR. Available at: http://www.preventionweb.net/english/professional/publications/v.php?id=3293

UNISDR. 2009. 2009 UNISDR Terminology on Disaster Risk Reduction. Geneva: Switzerland

13 APPENDIXES TO THE ANDM DISASTER MANAGEMENT PLAN (AS PER 2014 PLAN REVIEW)

Review findings

None of the ANDM's DRM Policy Framework supporting policies (SP 1 to SP 15) have been included in any section of the 2012 plan due to the fact that the Policy Framework was only finally completed in 2014.

Proposed action or changes

The SPs must be allocated to the relevant sections in the plan and should be linked to the specific Appendix as listed below.

Α	TTT for Policy Development (SP 2)
В	Establishment and staffing of the ANDM DM Centre (SP 3 and SP 4)
B 2	Institutional responsibilities
C 1	List of key role-players
C 2	ANDM Inter-municipality Committee on Disaster Risk Management as per ANDM DM Framework SP:
	1
C 3	ANDM Interdepartmental Disaster Risk Management Committee (MIDRMC) as per ANDM DM
	Framework SP:7
C 4	ANDM departments – Mandates & Focal Points (Annual List) (SP 6)
C 5	ANDM Disaster Risk Management Advisory Forum Membership (SP 10)
D	Register of all ANDM's mutual aid agreements within the Province
Е	Register of ANDM's agreements with national and international bodies
F 1	Technical Advisory Committee as per (SP: 12)
F 2	Methodology to conduct risk assessment as per SP: 11
F 3	ANDM DM Data requirements as per SP 11
F 4	ANDM DM Data layers obtained and currently included in the Provincial risk profiling GIS model and
	SP: 11
F 5	Register of data owners/custodians of ANDM DM data requirements.
F6	Register of comprehensive risk assessments completed to date.
G 1	Risk reduction planning process and project register
G 2	Register of TTTs
Н	Emergency Communication Network individual participant's names and contact details.
	Description of the Early Warning System
J	Preparedness planning process and register of preparedness plans
K	Incident management system
L	Information Management System
M 1	ANDM analysis of education, training and research resources and needs
M 2	ANDM education, training and research framework for disaster risk management
M 3	Register of national and provincial disaster risk management education and training programmes
M 4	ANDM Strategic research strategy
N	Funding plan for DM in the District
0	ANDM Disaster Management Plan review and updating schedule
Р	Compliance with the requirements of the Act and Framework to date