
THE ZULULAND DISTRICT MUNICIPALITY



Zululand



FINAL DISASTER MANAGEMENT PLAN

MAY 2014

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1. A NOTE ON TERMINOLOGY

Disaster risk management

The term 'disaster risk management' refers to integrated, multisectoral and multidisciplinary administrative, organisational, and operational planning processes and capacities aimed at lessening the impacts of natural hazards and related environmental, technological and biological disasters. This broad definition encompasses the definition of 'disaster management' as it is used in the Disaster Management Act No. 57 of 2002 (Act).

2. POLICY STATEMENTS: THE ZULULAND DISTRICT DISASTER MANAGEMENT MISSION AND VISION

Aligned with the National approach to disaster risk management, the Zululand District acknowledges that disaster risk management is *'everybody's business'* in the district and not only limited to government or government officials. The public and private sectors must work together to build a resilient district.

Vision for disaster risk management

The Zululand District Municipality's vision is to build informed and resilient communities and ensure a safe and healthy environment in the Zululand District Municipality.

Mission statement for disaster risk management

The Zululand District Municipality's mission is to develop and implement holistic and integrated planning and practice in a cost-effective and participatory manner to reduce vulnerabilities and build resilient communities through sustainable development and service delivery.

3. ABBREVIATIONS AND DEFINITIONS

3.1 Abbreviations

The following abbreviations are / may be used in this document:

ABBREVIATION:	MEANING:
DMAF	Disaster Management Advisory Forum
DMC(s)	Disaster Management Centre(s) including the PDMC and Municipal DMCs
DMF	Disaster Management Framework
DMIS	Disaster Management Information System
DMP(s)	Disaster Risk Management Plan(s) which includes reference to contingency plans and arrangements
DRM	Disaster Risk Management
IDP	Integrated Development Plan
ISDR	The International Strategy for Disaster Risk Reduction
JOC	Joint Operations Centre
KPA	Key Performance Area, as per the NDMF
MDMC	Municipal Disaster Management Centre
MIDRMC	Municipal Interdepartmental Disaster Risk Management Committee
NDMC	National Disaster Management Centre
NDMF	The National Disaster Management Framework as Gazetted in Government Gazette number 27534 of 29 April 2005
NGO	Non-governmental Organisation
PDMC	Provincial Disaster Management Centre
SOPs	Standard / Standing Operating Procedures / Protocols as per the NDMF
The Act	The Disaster Management Act, 2002 (Act 57 of 2002)
ZDM	The Zululand District (Municipality)

3.2 Definitions

Any reference to the term disaster risk management incorporates the term disaster management as per the NDMF.

The following definitions, as per the Act and the NDMF are applicable to this document:

"Disaster" means a progressive or sudden, widespread or localised, natural or human-caused occurrence which-

(a) causes or threatens to cause-

(i) death, injury or disease;

(ii) Damage to property, infrastructure or the environment; or

(iii) Disruption of the life of a community; and

<i>(b) is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources;</i>

"Disaster management" means a continuous and integrated multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at-

(a) preventing or reducing the risk of disasters;

(b) mitigating the severity or consequences of disasters;

(c) emergency preparedness;

(d) a rapid and effective response to disasters; and

(e) post-disaster recovery and rehabilitation;

"Integrated development plan", in relation to a municipality, means a plan envisaged in section 25 of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000);

"Local disaster" means a disaster classified as a local disaster in terms of section 23;

"Mitigation", in relation to a disaster, means measures aimed at reducing the impact or effects of a disaster;

"Municipal disaster management centre" means a centre established in the administration of a municipality in terms of section 43;

"Municipal entity" means a municipal entity defined in section 1 of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000);

"Municipal organ of state" means-

- (a) a municipality;
- (b) a department or other administrative unit within the administration of a municipality, including an internal business unit referred to in section 76(a) (ii) of the Local Government: Municipal Systems Act, 2000; or
- (c) a municipal entity;

"Post-disaster recovery and rehabilitation" means efforts, including development, aimed at creating a situation where-

- (a) normality in conditions caused by a disaster is restored;
- (b) the effects of a disaster are mitigated; or
- (c) circumstances are created that will reduce the risk of a similar disaster occurring;

"Prevention", in relation to a disaster, means measures aimed at stopping a disaster from occurring or preventing an occurrence from becoming a disaster;

"Response", in relation to a disaster, means measures taken during or immediately after a disaster in order to bring relief to people and communities affected by the disaster;

"Vulnerability" means the degree to which an individual, a household, a community or an area may be adversely affected by a disaster.

In terms of the National Disaster Management Framework, disaster risk is defined as follows:

The probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, disrupted economic activity or environmental damage) resulting from interactions between natural or human-induced hazards and vulnerable conditions. Conventionally risk is expressed as follows: Risk = Hazards x Vulnerability. Some disciplines also include the concept of exposure to refer particularly to the physical aspects of vulnerability.

In terms of the National Disaster Management Framework, a disaster risk assessment is defined as follows:

A process to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment on which they depend.

In terms of the National Disaster Management Framework, disaster response is defined as follows:

Measures taken during or immediately after a disaster in order to provide assistance and meet the life preservation and basic subsistence needs of those people and communities affected by the disaster. These measures can be of immediate, short-term or protracted duration.

In terms of the National Disaster Management Framework, disaster recovery is defined as follows:

Decisions and actions taken immediately after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures.

4. INTRODUCTION

4.1 The international context

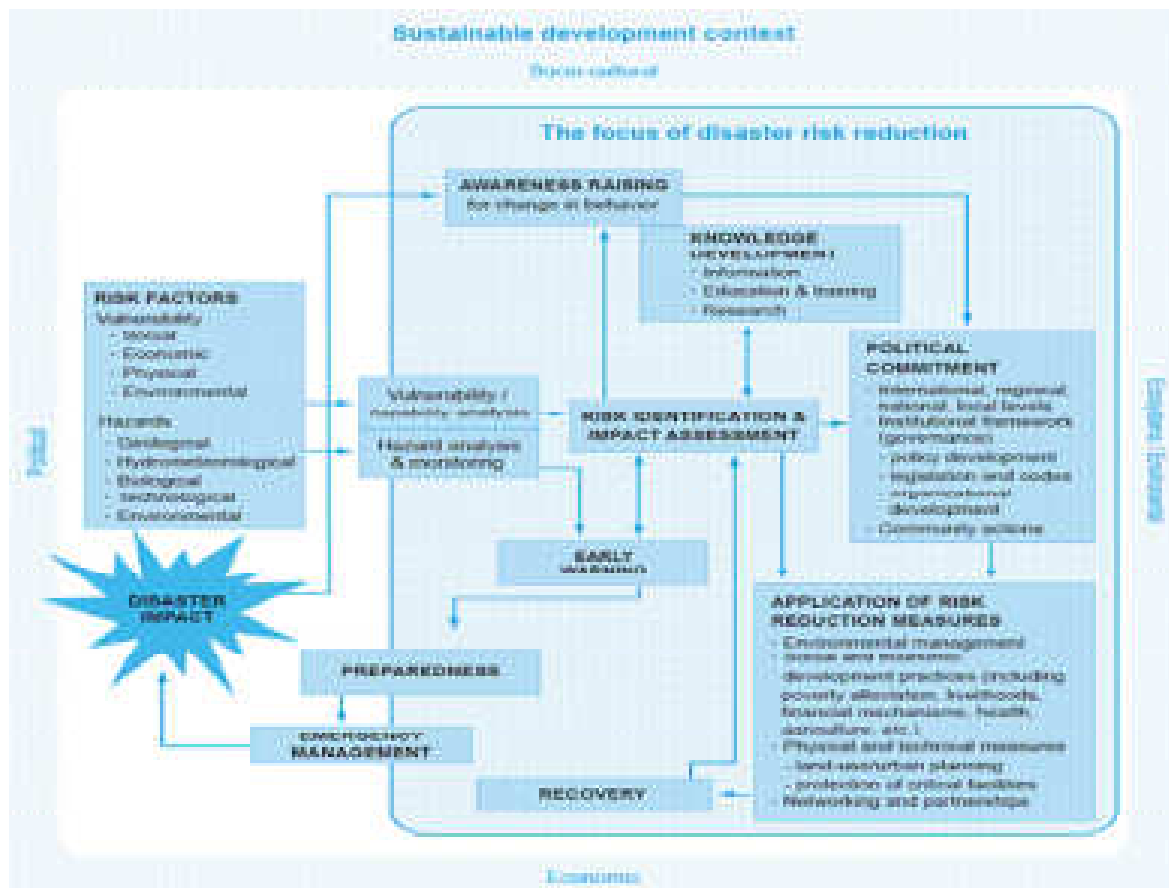
Disaster risk management in the Zululand district will be implemented through alignment with provincial, national and international guidelines. The Hyogo Framework for Action indicated five action points relating to disaster risk management:

**The ISDR¹: Hyogo Framework for Action:
2005-2015-5 Action points**

¹ See the United Nations International Strategy for Disaster Reduction: www.unisdr.org

- 1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- 2. Identify, assess and monitor disaster risks and enhance early warning.
- 3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- 4. Reduce the underlying risk factors.
- 5. Strengthen disaster preparedness for effective response at all levels.

The UNISRD also emphasises the link between disaster risk management and sustainable development, as depicted in the diagram below:



4.2 The field of disaster management in the country and requirements of the Act

The approach to disaster risk in South Africa has undergone major reform since 1994, when government took the decision to move away from the prevailing philosophy and practice that

disasters were inevitable and could only be dealt with once they had occurred. As early as 1990, South Africa had aligned itself with new international developments in the field of disaster risk management. These included an emphasis on the use of disaster risk reduction strategies to build resilience and promote sustainable livelihoods among 'at risk' individuals, households, communities and environments.

A wide process of consultation was embarked upon, which culminated in the publication of the Green Paper, in 1998, and the White Paper on Disaster Management, which was gazetted in 1999. Based this, the Disaster Management Act, Act 57 of 2002 was promulgated in 2002. In terms of a proclamation in Government Gazette, Vol. 465, No. 26228 of 31 March 2004, the President proclaimed 1 April 2004 as the date of commencement of the Act in the national and provincial spheres and 1 July 2004 in the municipal sphere.

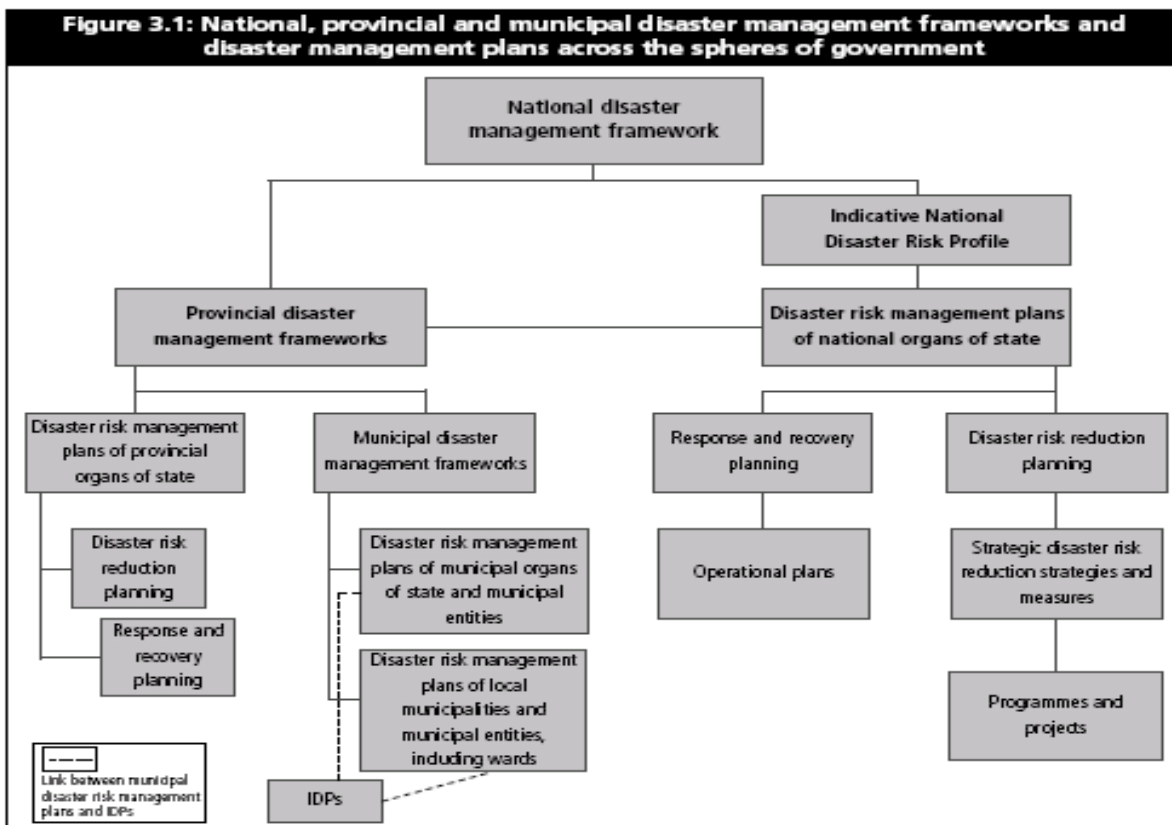
In giving effect to the fact that disaster risk management is the responsibility of a wide and diverse range of role players and stakeholders, the Act emphasises the need for uniformity in approach and the application of the principles of co-operative governance. In this regard, it calls for an integrated and coordinated disaster risk management policy, which focuses on risk reduction as its core philosophy. In order to achieve consistency in approach and uniformity in the application of the Act, section 6 of the Act mandates the Minister to prescribe a national disaster management framework. In accordance with this mandate, the National Disaster Management Framework (NDMF) was gazetted on 29 April 2005 (Government Gazette, Vol. 478, No. 27534).

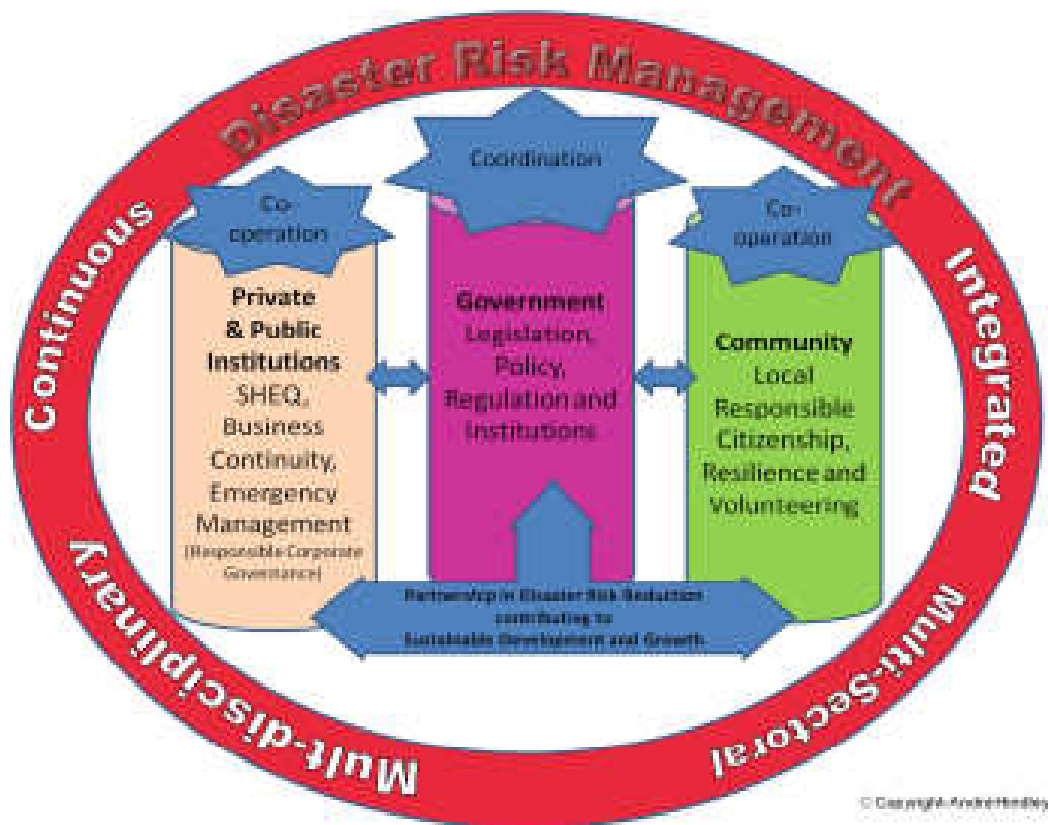
In terms of section 41(1)(b) of the Constitution of the Republic of South Africa, Act 108 of 1996, all spheres of government are required to 'secure the well-being of the people of the Republic'. According to Part A, Schedule 4, disaster risk management is a functional area of concurrent national and provincial legislative competence. However, section 156(4) of the Constitution does provide for the assignment to a municipality of the administration of any matter listed in Part A Schedule 4 which necessarily relates to local government, if that matter would most effectively be administered locally and if the municipality has the capacity to administer it. The

assignment of the function must, however, be by agreement and may be subject to certain conditions.

In this context, Schedules 4 and 5 of Part B of the Constitution require local government to provide for functions which are closely linked to disaster risk management. In particular, section 152(1)(d) requires local government to 'promote a safe and healthy environment'. It is in this context then that the Minister has elected to assign the function, by way of national legislation, to municipalities. Accordingly, in terms of the Act, the function is assigned to the Municipal Council of the Zululand District Municipality.

The field of disaster risk management covers a broad spectrum and affects a range of role players. The context of disaster risk management in the country is further highlighted indicated in the diagrams below:





Disaster risk reduction, through proper planning and management is the new key driving principle in disaster risk management.

The Act calls and/or makes provision for a range of actions to be taken by a Municipality. These actions include:

- Formulating Disaster Management Plans (DMPs)
- Whilst detail DPS's are not yet in existence, contingency arrangements need to be put in place.

It should be noted that a disaster management framework acts as the policy guideline foundation (*Section 3.1.1.1 of the NDMF*) for **what** needs to be addressed through the disaster risk management efforts in The Zululand District Municipality and the disaster risk management plans specifies in more detail **how** these requirements and policies are implemented.

4.3 The link with sustainable development

The aim of the Integrated Development Plans (IDP) of the Zululand District Municipality is to promote sustainable development and uses the spatial development framework (SDF) to visualize future development.

In terms of Section 26(g) of the Municipal Systems Act, 2000, Act 32 of 2000, a Municipality's IDP must contain a disaster management plan. Development projects in the Municipality, as contained in the Municipality's IDP, is thus interlinked with disaster management planning and activities. Risk reduction projects identified as part of disaster risk management planning, such as those identified in this plan and the contingency plans developed and risk assessments should be included into the local Municipal IDP.

4.4 The legal and policy requirements for a disaster management plan

The Act provides the following requirements for a municipal DMP:

Preparation of disaster management plans by municipal entities

52. (1) *Each municipal entity indicated in the national or the relevant provincial or municipal disaster management framework will-*

- (a) 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 national, provincial or municipal disaster management frameworks;*
 - (iii) its role and responsibilities regarding emergency response and post disaster recovery and rehabilitation;*
 - (iv) its capacity to fulfill its role and responsibilities;*
 - (v) 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;

(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) A municipal entity referred to in subsection (1) will submit a copy of its disaster management plan, and of any amendment to the plan, to the National Centre and the relevant Provincial and Municipal Disaster Management Centres.

(b) If a municipal entity 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 or relevant provincial or municipal disaster management centre will report the failure to the executive mayor or mayor, as the case may be, of the municipality concerned, who will take such steps as may be necessary to secure compliance with that paragraph, including reporting the failure to the municipal council.

Disaster management plans for municipal areas

53. *(1) Each municipality will, 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 will-

(a) form an integral part of the municipality's integrated development plan;

(b) anticipate the types of disaster that are likely to occur in the municipal area and their possible effects;

(c) place emphasis on 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 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 will prepare their disaster management Plans after consulting each other.*
- (4) A municipality will 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 NDMF defines a Level 1 DMP as:

A Level 1 Disaster Risk Management Plan applies to national or provincial organs of state and municipal entities that have not previously developed a coherent disaster risk management plan. It focuses primarily on establishing a foundation for institutional arrangements for disaster risk management, putting in place contingency plans for responding to known priority threats as identified in the initial stages of the disaster risk assessment, identifying key governmental and other stakeholders, and developing the capability to generate a Level 2 Disaster Risk Management Plan.

In terms of the National Disaster Management Framework, contingency planning is defined as follows:

The forward planning process for an event that may or may not occur, in which scenarios and objectives are agreed, managerial and technical actions defined, and potential response systems put in place to prevent, or respond effectively to, an emergency situation.

In terms of section 54 of the Act, the following is pertinent in this regard:

Responsibilities in event of local disaster

54. (1) Irrespective of whether a local state of disaster has been declared in terms of section 55-

(a) the council of a metropolitan municipality is primarily responsible for the co-ordination and management of local disasters that occur in its area; and

(b) the council of a district municipality, acting after consultation with the relevant local municipality, is primarily responsible for the co-ordination and management of local disasters that occur in its area.

(2) A district municipality and the relevant local municipality may, despite subsection (1)(b), agree that the council of the local municipality assumes primary responsibility for the co-ordination and management of a local disaster that has occurred or may occur in the area of the local municipality.

(3) The municipality having primary responsibility for the co-ordination and management of a local disaster must deal with a local disaster-

(a) in terms of existing legislation and contingency arrangements, if a local state of disaster has not been declared in terms of section 55(1); or

(b) in terms of existing legislation and contingency arrangements as augmented by by-laws or directions made or issued in terms of

section 55(2), if a local state of disaster has been declared.

(4) This section does not preclude a national or provincial organ of state, or another municipality or municipal organ of state from providing assistance to a municipality to deal with a local disaster and its consequences.

Declaration of local state of disaster

55. *(1) In the event of a local disaster the council of a municipality having primary responsibility for the co-ordination and management of the disaster may, by notice in the provincial gazette, declare a local state of disaster if-*

*(a) existing legislation and contingency arrangements do not adequately provide for that municipality to deal effectively with the disaster;
or*

(b) other special circumstances warrant the declaration of a local state of disaster.

(2) If a local state of disaster has been declared in terms of subsection (1), the municipal council concerned may, subject to subsection (3), make by-laws or issue directions, or authorize the issue of directions, concerning-

*(a) the release of any available resources of the municipality,
including stores, equipment, vehicles and facilities;*

(b) the release of personnel of the municipality for the rendering of emergency services;

(c) the implementation of all or any of the provisions of a municipal disaster management plan that is applicable in the circumstances;

(d) the evacuation to temporary shelters of all or part of the population from the disaster-stricken or threatened area if such action is necessary for the preservation of life;

(e) the regulation of traffic to, from or within the disaster-stricken or threatened area;

(f) the regulation of the movement of persons and goods to, from or within the disaster-stricken or threatened area;

(g) the control and occupancy of premises in the disaster-stricken or threatened area;

(h) the provision, control or use of temporary emergency accommodation;

- (i) the suspension or limiting of the sale, dispensing or transportation of alcoholic beverages in the disaster-stricken or threatened area;*
- (j) the maintenance or installation of temporary lines of communication to, from or within the disaster area;*
- (k) the dissemination of information required for dealing with the disaster;*
- (l) emergency procurement procedures;*
- (m) the facilitation of response and post-disaster recovery and rehabilitation; or*
- (n) other steps that may be necessary to prevent an escalation of the disaster, or to alleviate, contain and minimise the effects of the disaster.*

(3) The powers referred to in subsection (2) may be exercised only to the extent that this is necessary for the purpose of-

- (a) assisting and protecting the public;*
- (b) providing relief to the public;*
- (c) protecting property;*
- (d) preventing or combating disruption; or*
- (e) dealing with the destructive and other effects of the disaster.*

(4) By-laws made in terms of subsection (2) may include by-laws prescribing penalties for any contravention of the by-laws.

(5) A municipal state of disaster that has been declared in terms of subsection (1)-

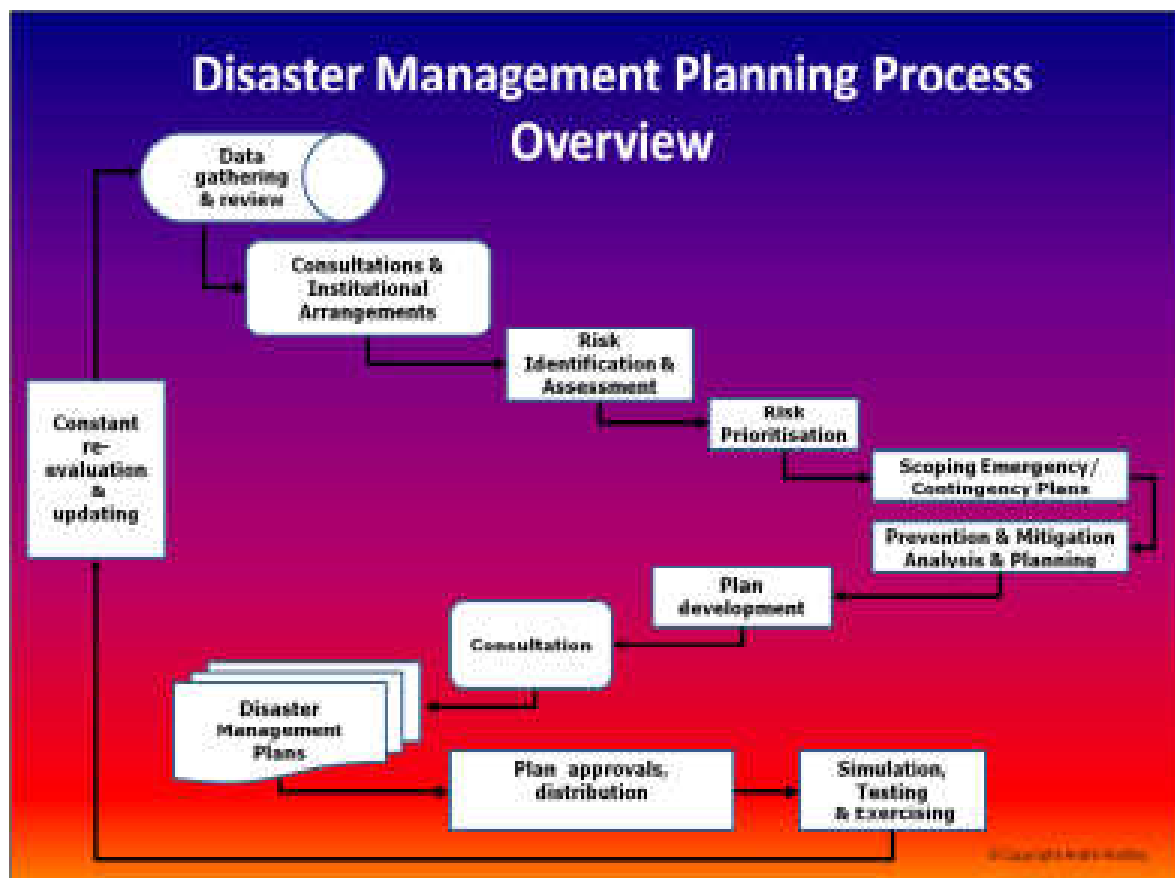
- (a) lapses three months after it has so been declared;*
- (b) may be terminated by the council by notice in the provincial gazette before it lapses in terms of paragraph (a); and*
- (c) may be extended by the council by notice in the provincial gazette for one month at a time before it lapses in terms of paragraph (a) or the existing extension is due to expire.*

4.5 National and International Standards

SABS TC 223(National Disaster Management Committee) is the mirror committee for ISO TC 223 in South Africa. The SABS TC223 drives the development of Disaster Management standards in line with Section 7(2)(iii)(c) of the Disaster Management Act. In executing its disaster risk management function, the Zululand District Municipality will take guidance and cognisance from national and international standards on disaster risk management, including SANS 10263-1,2 and 3.

4.6 The disaster management planning process

The disaster management planning process is depicted in the diagram below:



4.7 This disaster management plan

The Zululand District Municipality prepared this Level 1 Disaster Risk Management Plan, in which the scope, objectives, management issues and other elements pertaining to disaster management are outlined. This Plan aims to achieve the following objectives:

- Serve as the foundation and guide for local municipal disaster risk management planning and risk reduction²;
- Prevention and reduction of disaster risks;
- Mitigation of impacts; preparedness for effective response to disasters;
- Minimize loss and property damage; and quick recovery from the impacts.

The Plan articulates actions to prevent and mitigate disasters and how risk reduction measures are dealt with in the long-term and managing emergencies in the shorter term, including aspects of preparedness, response and recovery. Provision is also made for the periodic reviews and updates of the plans.

This Plan establishes the arrangements for disaster risk management within The Zululand District Municipality and has been prepared in accordance with the requirements of the Disaster Management Act, 57 of 2002 (the Act).

This Plan should be read in conjunction with The Zululand District Disaster Management Framework as well as Provincial and National legislation, policy and guidelines.

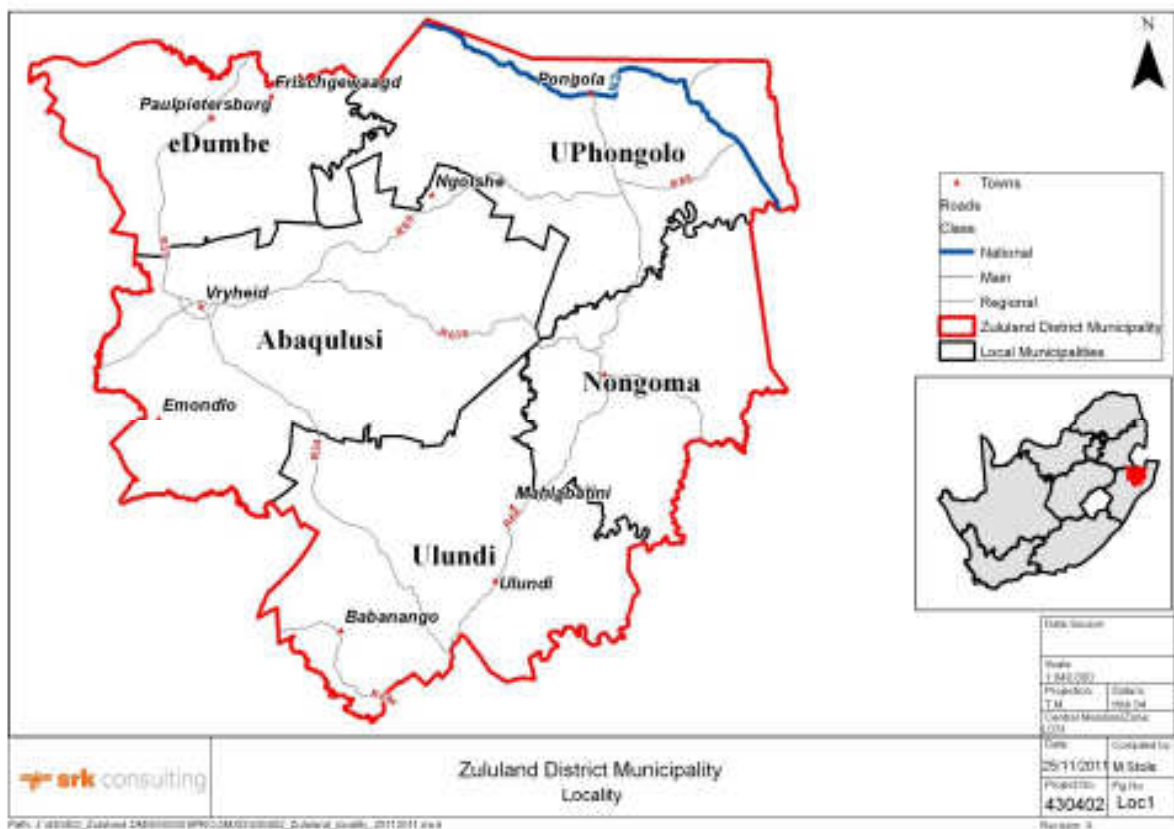
This living document is a collation of information and inputs received from the different stakeholders and need to be constantly reviewed and updated.

² This plan will be updated once / as local municipal disaster risk management plans are being drafted and finalised.

5. MUNICIPAL PROFILE

The Zululand District is located on the northern regions of the KwaZulu-Natal Province and it covers an area of approximately 14 810 km². Approximately half of the area is under the jurisdiction of traditional authorities while the remainder is divided between commercially owned farms and conservation areas. The District comprises the following five local municipalities as depicted below:³

- eDumbe Local Municipality;
- uPhongolo Local Municipality;
- Abaqulusi Local Municipality;
- Nongoma Local Municipality; and
- Ulundi Local Municipality.



The two main towns in Zululand are Vryheid and Ulundi. Vryheid is the main commercial, industrial and business centre, with well-developed physical, social and institutional infrastructure. It is well located at the intersection of the major transport routes which traverse the region. Ulundi has a narrower economic base, relying heavily on the three spheres of government, commerce and

³ Zululand District Municipality Integrated Development Plan Review 2010/2011 (Final)

informal trading. It is located on a secondary route within the District, but 19 kilometers from the main R34 route.⁴

eMondlo is another significant urban area. It is primarily a residential area with limited services and facilities and few employment opportunities. Pongola and Paulpietersburg are small towns, which act as service centres, while Nongoma fulfills the same role, but with far fewer and lower order services.⁵

6. INSTITUTIONAL ARRANGEMENTS

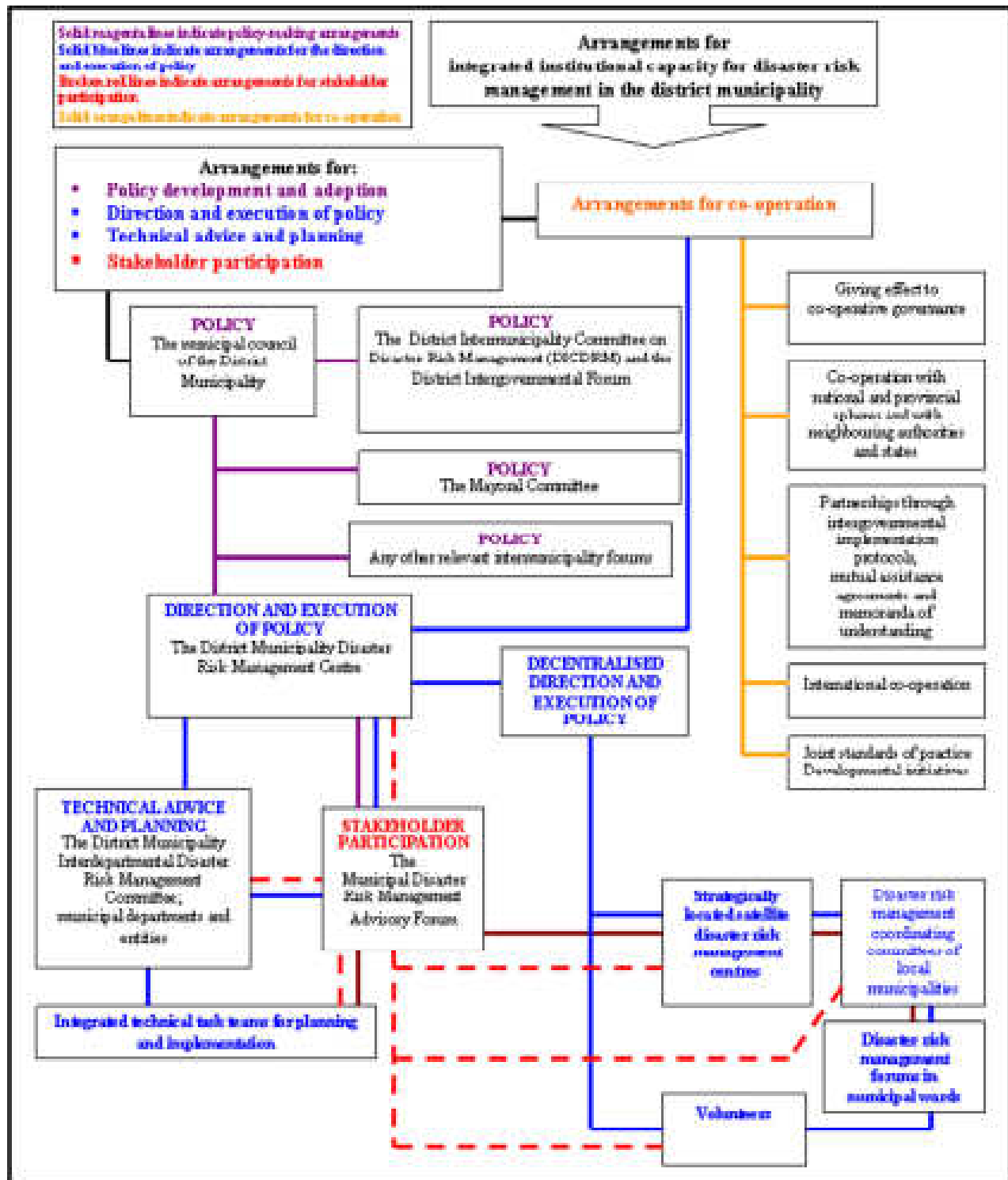
6.1 An overview of the arrangements for integrated institutional capacity for disaster risk management in the district municipality

The disaster risk management function and DMC in the municipality resort under the Corporate Services Department.

An overview of the arrangements for integrated institutional arrangements for disaster risk management in the district municipality is summarised in the NDMC diagram below.

⁴ Zululand District Municipality Integrated Development Plan Review 2010/2011 (Final)

⁵ Zululand District Municipality Integrated Development Plan Review 2010/2011 (Final)



6.2 The District Disaster Management Centre

To optimally perform all statutory responsibilities for the direction and execution of the municipality's disaster risk management policy framework, the Zululand Municipal Disaster Risk Management Centre must be adequately resourced in terms of personnel, systems and infrastructure. In this regard, it must comply with the minimum criteria for the employment of suitably skilled personnel, systems and infrastructure set out in the National Disaster Risk Management Guidelines (published in NDMC Handbook 2 of the *South African Disaster Risk Management Handbook Series*) and in any provincial guidelines, and must be approved and adopted by the municipal council.

6.2.1 The head of the municipal disaster risk management centre

In terms of section 45(1) of the Act, the municipal council must appoint a suitably qualified person as head of the municipal disaster risk management centre. The appointment is subject to the applicable provisions of the Local Government: Municipal Systems Act No. 32 of 2000 (known as the Systems Act). The head of the centre should be appointed / situated at senior management level.

The head of the Zululand Municipal Disaster Risk Management Centre is responsible for the exercise by the centre of its powers and the performance of its duties. In this regard, the head takes all the decisions of the centre, except decisions taken by another person as a result of a delegation by the head of the centre. The head performs the functions of office in accordance with section 44 of the Act.

The head of the centre performs the functions of office:

- in accordance with the NDMF and the key responsibilities prescribed in the NDMF;
- in accordance with the disaster risk management policy framework of the KZN Province;
- in accordance with the disaster risk management policy framework of the Zululand District Municipality;
- subject to the municipal council's IDP and other directions of the council; and
- in accordance with the administrative instructions of the municipal manager.

6.2.2 Delegation or assignment of the powers of the head of the centre

The head of the centre may, in writing, delegate any of the powers or assign any of the duties entrusted to the municipal centre in terms of the Act to a member of staff of the municipal disaster risk management centre. The municipal manager must give effect to such delegation or assignment of powers. Such delegation is, however, subject to limitations or conditions that the head of the centre may impose. Such delegation or assignment does not divest the head of the municipal disaster risk management centre of the responsibility concerning the exercise of the delegated power or the performance of the assigned duty.

The head of the municipal disaster risk management centre may confirm, vary or revoke any decision taken in consequence of a delegation or assignment, but no such variation or revocation of a decision may detract from any rights that may have accrued as a result of such a decision

6.2.3 Staffing

The DMC requires approximately 8 full-time staff members. These staff members will have different roles and responsibilities within the DMC, and will therefore have specific skills. Some of the required staff members include:

- 4 x Disaster Management focused officials, including the centre manager, senior DMC staff and DM officers;
- 2 x Support staff, including an IT and GIS Specialist, capable of providing general IT support to the Centre, function as GIS Technician in managing GIS data, and creating the required maps;
- 1 x Administrative personnel, including a receptionist/administrative assistant; and
- 1 x Cleaning and Maintenance, who will be responsible to maintain and clean the DMC facilities as well as the site surrounding the DMC.

The above stated staff requirements should serve as a guide, however, it is proposed that an analysis be done to determine the staff requirements within the DMC, as well as develop detailed job descriptions, required skills and key performance indicators for each position within the DMC.

6.2.4 Equipment

Various different sets of equipment are required in the DMC. The amount and type of equipment will be determined by the proposed layout and size of the centre. However, general equipment that might be required at the DMC include:

- A dedicated DMC building / office space.
- Furniture including desks, tables, chairs, room dividers and desk dividers. The furniture should ideally be modular furniture, with wheels to facilitate easy movement of furniture.
- Information Technology includes personal computers, laptops, printers, scanners and copiers.
- A strong room / safe.
- Stationary and Office supplies, including White board and permanent markers in various colours, normal staplers, and heavy duty staplers, document punch, paper clips, staple puller, push pins, masking tape, writing pads, pens, pencils, rubber bands, erasers, 'post-it' pads, various paper for printers/plotters, file folders, CDs, DVD.
- Communication, navigation and data capturing equipment, including telephones, fax machines, switchboard, radios, cell phones, chargers, public address equipment and GPS Devices.
- Audio-visual equipment including televisions (with access to the major satellite channels), radios, video cassette, DVD, and CD players, data and transparency projectors, white screens, flip chart easel and pads.
- Reference Material including map books, maps and blueprints.
- Medical and Safety Equipment, including Fire Extinguishers and First-Aid kits.
- Kitchen and Food related equipment and appliances, including cutlery, dishes, cups, saucers, refrigerators, stove/oven, microwave oven and tea trolley.
- Back-up services infrastructure, including generator and fuel (if required), water tanks and pumps.
- Food/Drink groceries including coffee, tea, sugar, long life milk and bottled water.
- Sanitation requirements, including disinfectant, hand soap, towels, and other sanitation items.
- Cleaning and Maintenance requirements, including soap and washing liquids, cleaning equipment, buckets and vacuum cleaner.
- Other equipment, including electrical extension cords, notice boards and flashlights.

- Vehicles, the DMC also require a suitable vehicle(s) in order for officials to effectively travel and have access to disaster areas. This vehicle should ideally have 4x4 capabilities, seeing that officials should be able to travel in rural, or undeveloped areas.

6.3 Decentralised arrangements for the integrated execution of disaster risk management policy in the area of the district municipality

The head of the centre must establish mechanisms to ensure integration and joint standards of practice in the execution of disaster risk management policy throughout the Zululand District Municipality, linked with neighbouring municipalities and countries.

6.4 Disaster Management Advisory Forum

6.4.1 Purpose

Section 44(1)(b) of the Disaster Management Act No. 57 of 2002 (Act) calls for an integrated and coordinated approach to disaster risk management in municipal areas. To make provision for the integration and coordination of disaster risk management activities and to give effect to the principle of co-operative governance in the Zululand District Municipality, the municipal council may establish a Disaster Risk Management Advisory Forum. Section 51 of the Act makes provision for the establishment of such a forum.

6.4.2 Management and administration

The advisory forum must be established by the portfolio councillor responsible for the disaster risk management function in the Zululand District Municipality. The advisory forum must be chaired by the head of the disaster risk management centre of the Zululand District Municipality.

The disaster risk management centre must provide the secretariat for the advisory forum and must ensure that accurate records of the activities of the forum are maintained.

6.4.3 Composition of the Disaster Risk Management Advisory Forum

The advisory forum must comprise all the relevant stakeholders and role players in disaster risk management in the municipality, including non-governmental and community-based organisations, individuals or groups with special technical expertise, representatives of the local municipalities in the district and representatives of neighbouring district municipalities.

6.5 Local Municipal Disaster Management Committees

The local (for each local municipality) disaster management committees facilitates integrated and coordinated planning by providing a forum for collaboration on joint cross-departmental plans and programmes aimed at disaster risk reduction and other relevant activities associated with disaster risk management. It assists with supervising the preparation, coordination, monitoring and review of disaster management activities and their integration into IDP processes.

6.6 Volunteer Unit

The municipality does not currently have a formally established disaster management volunteer unit.

The Municipality will formally establish such a unit and ensure that it can function effectively throughout its municipal area, in line with the regulations with regard to volunteers. The requirements and processes relating to volunteers will be in accordance with the Act, its regulations and the NDMF. Different categories of volunteer units, as envisaged by the NDMF, will be established. The National Regulations pertaining volunteers will be utilised as the basis for management of the unit.

6.7 Technical advisory committees

A technical advisory committee (TAC) must be appointed by the municipal disaster risk management centre prior to commissioning any disaster risk management projects for the district municipality. The purpose of the TAC is to provide scientific and technical advice, to monitor the progress of disaster risk management projects and to assist with the validation and/or interpretation of the findings.

In addition, any municipal department and/or municipal entity in the district municipality or a department and/or municipal entity in any of the district's local municipalities intending to commission a disaster risk management projects for its functional area may appoint a TAC to provide scientific and technical advice, to monitor the progress of the disaster risk management project and to assist with the validation and/or interpretation of the findings.

A TAC must function and meet as required in accordance with predetermined terms of reference, which must be documented and submitted to the Zululand Municipal Disaster Risk Management Centre for approval before being formally adopted by the TAC.

The relevant departments, DMA (if applicable) and municipal entities in the district municipality as well as those in the local municipalities in the district must, in consultation with the municipal disaster risk management centre, determine the intervals at which disaster risk management implementation for their functional areas should be reviewed.

All proposed disaster risk management projects planned by departments and municipal entities in the district municipality and in local municipalities in the district must be submitted to the Zululand Municipal Disaster Risk Management Centre. These proposed assessments must also be sent to the relevant provincial disaster risk management centre and the NDMC for technical review and approval before being commissioned.

TAC's may also be established at local Municipal level, but should be established through a formal Council Resolution.

6.8 Municipal Interdepartmental Disaster Risk Management Committee (MIDRMC)

The Disaster Management Act No. 57 of 2002 (DM Act) requires municipal disaster risk management centres to promote a coordinated, integrated and uniform approach to disaster risk management, including the development and implementation of appropriate disaster risk reduction methodologies, emergency preparedness and rapid and effective disaster response and recovery, in their municipalities.

To achieve these objectives and to promote interdepartmental liaison, arrangements must be put in place to enable all the key internal and external role players in the administration of a municipality to participate in disaster risk management activities and to coordinate their disaster risk management

responsibilities. To achieve this objective, a Municipal Interdepartmental Disaster Risk Management Committee (MIDRMC) will be established in accordance with NDMC Guidelines.

6.9 Ward structures

The existing ward structures and ward-committee meetings will be utilised for implementing disaster risk reduction at ground level. Disaster risk management must be an agenda point of ward committee meetings.

6.10 Assignment of responsibilities

The following table summarises the main responsibilities of the different structures at Municipal level, with regard to disaster risk management efforts:

DISASTER MANAGEMENT SUMMARY ROLES AND RESPONSIBILITIES-POWERS & FUNCTIONS						
Populate: Input / Implement / Obtain / Disseminate						
Component:	Mayor and Municipal Manager	Council	Disaster Management Officials & Volunteers	Departments and Organs of State	Advisory Forum	Other external role players
Disaster Risk Management Policy	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate	Input Obtain Disseminate Implement
Disaster Risk & Assessment Planning	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate	Input Obtain Disseminate RA:- Plans:

						Implement
Declaring a State of Disaster	Input Obtain Disseminate Implement	Declare	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate	Obtain Disseminate
Disaster Response and Recovery activities	Obtain Disseminate Implement	Input Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate	Input Obtain Disseminate Implement
Designating members of the Advisory Forum & Volunteers	Input Disseminate Implement	Disseminate	Input	Obtain	Obtain Disseminate	Obtain Disseminate
Communication of information, training & research	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate
Reporting, Monitoring and Evaluation	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement	Input Obtain Disseminate Implement

6.11 Specific roles and responsibilities for municipal departments and organs of state

The following general responsibilities pertain to each and every municipal department of the Zululand District Municipality and each of its local Municipalities⁶. These general responsibilities are the minimum requirements in order to give effect to the DMA. It should however be noted that these lists are not exhausted and serve as a guide for departments to take their own initiatives.

The district's main stakeholders in disaster management and their primary responsibilities are summarised in the table below:

⁶ It should be noted that the exact names of the departments may vary in the district and local municipalities. Generic description of typical sector departments is therefore used.

STAKEHOLDER	PRIMARY ROLES AND RESPONSIBILITIES
The Municipal Council	The Municipal Council declares a state of disaster and receives and considers reports with regard to disaster risk management.
The Municipality's Municipal Manager	The Municipal Manager is overall responsible for governance in the Municipality, including effective disaster risk management.
The Municipality's Disaster Management Function	The Disaster Management Functions are overall disaster risk management and co-ordination, as per section 44 of the Disaster Management Act. Each Municipal Organ of State (which implies each Municipality Department and each Municipal Entity), will complete its own disaster management plans, to be incorporated into the Municipality's Municipal Disaster Management Plan.
Fire, Protection and Emergency Management Services	Assist with disaster risk reduction, implementation and co-operation.
The Disaster Management Volunteers	The formal, trained volunteer unit assist Disaster Management in their functions.
The residents and communities affected	Assist with disaster risk reduction and co-operation.
The Ward Councillors	The Ward Councillors assist with community liaison.
The Community Leaders	The Community Leaders assist with community liaison.
Fire Protection Associations	Disaster risk reduction, response and co-operation
KZN Wildlife	Disaster risk reduction, response and co-operation
Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs)	The NGOs and CBOs assists with disaster risk reduction and co-operation. Note: The nearest Red Cross Branch for support is in Empangeni.
Private sector and industry	Assist with disaster risk reduction and co-operation.
Health Care	Assisting with prevention/mitigation, response and recovery actions. Treating and transporting of patients.
Corporate Services and Financial Services	Assisting with administration, legal advice and funding.
Communication & Public Participation and Community Services	Assisting the disaster management function with communication and awareness.
Engineering, Development, Infrastructure & Technical Services and Community Services	Assisting with prevention/mitigation, response and recovery actions.

6.12 Cross border arrangements

The DMC will constantly liaise with neighbouring municipalities, and countries in disaster risk reduction and planning efforts.

7. A MEMORANDUM OF UNDERSTANDING BETWEEN STAKEHOLDERS ON DISASTER RISK MANAGEMENT PLANNING AND IMPLEMENTATION FOR ALL ROLE PLAYERS IN THE DISTRICT

The following principles will apply to all stakeholders in disaster risk management in The Zululand District:

- 1) Detailed disaster risk management planning, prevention, mitigation, response and recovery-related actions will be executed by all relevant institutions and stakeholders / role players in The Zululand District though applying the principles and requirements as foreseen by the Act, the NDMF, PDMF, District DMF and this Plan.
- 2) Mutual Aid Agreements will be signed between relevant stakeholders.
- 3) The principles of co-operation, effective communication and information management, reporting and alignment (joint standards of practice) of planning and implementation on disaster risk management will at all time be adhered to by all institutions, stakeholders and role players.
- 4) Disaster risk management information systems will be implemented in a co-ordinated and aligned fashion throughout The Zululand District Municipality to ensure effective information management.
- 5) Training, capacity building and research on disaster risk management will continually be executed at all levels of government and for and by stakeholders in The Zululand District.
- 6) The involvement and co-operation of non-governmental role players and historical information, to be *inter alia* gathered through indigenous knowledge, is of paramount importance. Traditional leaders in the local municipalities will be properly consulted and informed with regard to disaster risk management initiatives in their areas.

- 7) The local disaster management function will execute detailed research; obtain all required technical advice and inputs required and guide and monitor disaster risk management implementation, co-operation, communication and information dissemination in The Zululand District.

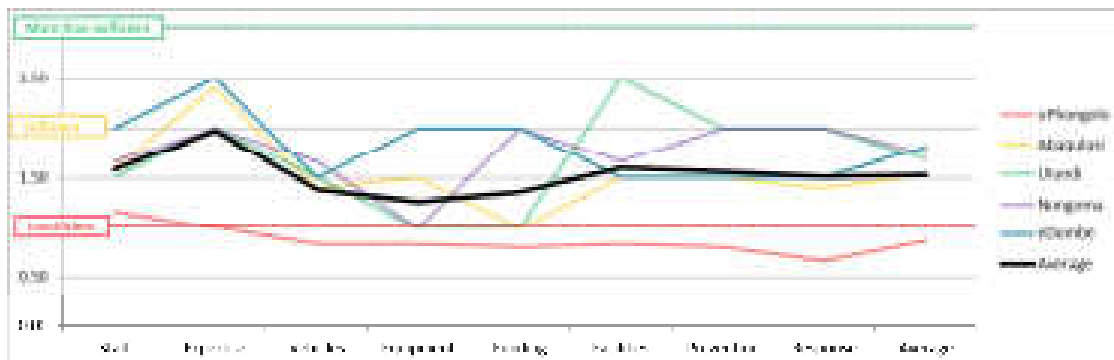
8. CAPACITY ANALYSIS AND REQUIREMENTS

Limited capacity currently exists in The Zululand District Municipality and specifically in its local municipalities to fulfil all the functions required by the Act.

Capacity requirements are as follows:

- Additional personnel
- Additional vehicles
- Additional funding / budget
- Additional training.

The average resilience rating based on the assessment results of all the participating role players in the ZDM was calculated as 1.53 as depicted in the figure below.

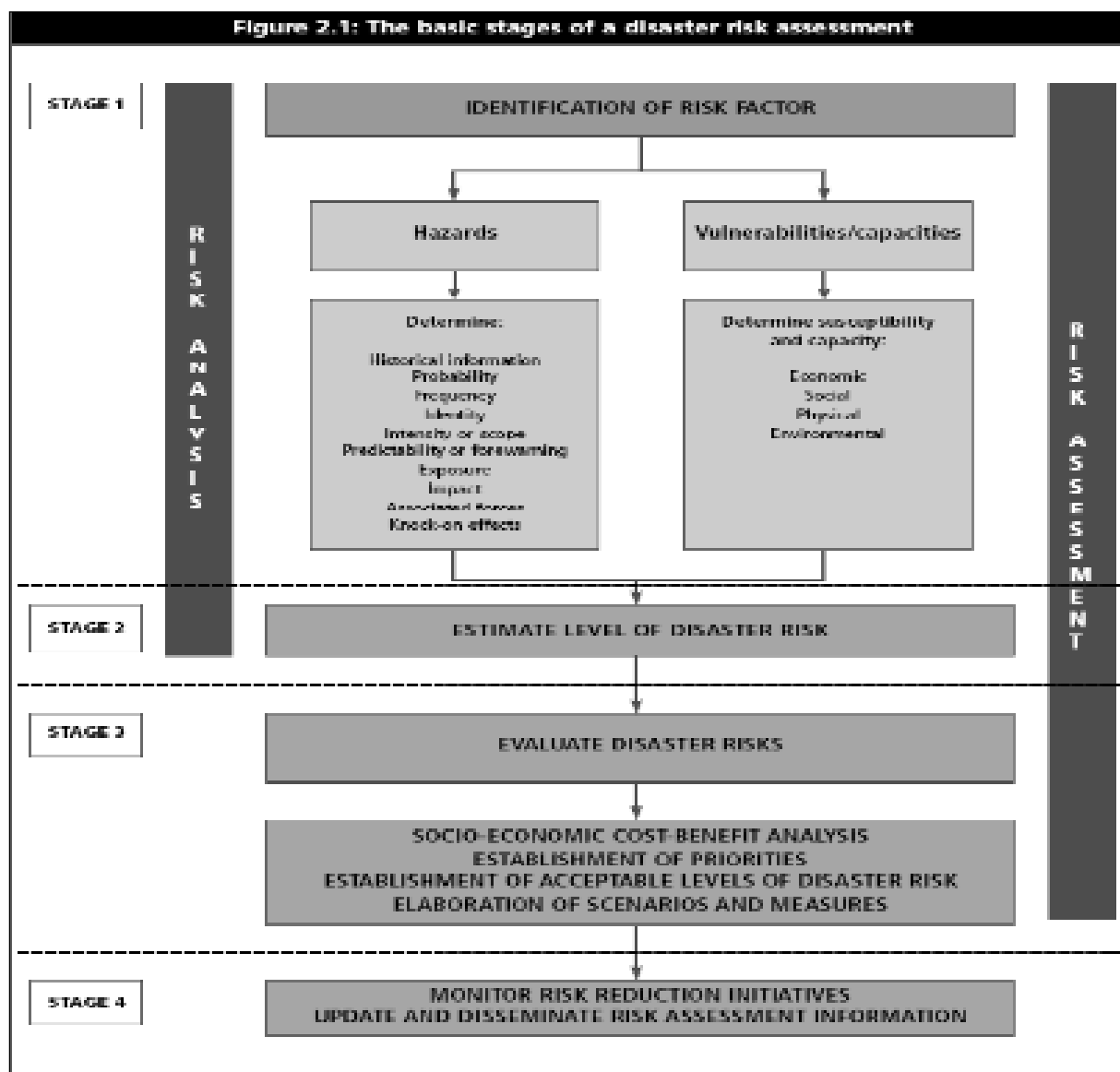


The result of this analysis suggests that there is a need for increased investment in resilience building in each of the local municipalities in the ZDM.

Please refer to the disaster risk assessment report for more details in this regard. A municipal capacity and resource summary, including response times to incidents by key stakeholders, have been undertaken and is available at the DMC.

9. MUNICIPAL DISASTER RISK ASSESSMENT

Disaster risk assessments in the Municipality will be executed as prescribed by the NDMF, summarised in the diagram below:



The Zululand District Municipality's current disaster risk profile is based on a detailed disaster risk assessment process. The risk profile for the Zululand District Municipality is based on the data received from the workshop consultations, as well as the base data (including reports) collected during the study. The data collected from the stakeholders was compared with the desktop hazard assessment results, and the hazard severity value was adopted. This severity value was combined with a probability value (probability of occurrence within a 1 year period), in order to calculate the final hazard value. The prioritised risk profile for the ZDM is based on

the data received from the workshop consultations, as well as the base data collected during the study. The stakeholder perception data and local resilience data were also compared with the desktop hazard assessment results, and the prioritised risk profile was developed. The Risk Prioritization for the ZDM is shown below.

Hazard Name	Risk
Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog)	
Disease / Health - Disease: Human (HIV/AIDS & TB)	
Fire Hazards - Formal & Informal Settlements / Urban Area	
Fire Hazards - Veld/Forest Fires	
Disease / Health - Disease: Human (Other Disease)	
Hydro-meteorological - Drought	
Infrastructure Failure / Service Delivery Failure - Water	
Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure)	
Infrastructure Failure / Service Delivery Failure - Electrical	
Civil Unrest - Crime	
Civil Unrest - Demonstrations / Riots	
Civil Unrest - Refugees / Displaced People	
Hazardous Material - Hazmat: Fire/Explosion (Storage & Transportation)	
Civil Unrest - Xenophobic Violence	
Infrastructure Failure / Service Delivery Failure - Sanitation	
Infrastructure Failure / Service Delivery Failure - Information Technology	
Infrastructure Failure / Service Delivery Failure - Gas	
Transport Hazards - Road Transportation	
Geological Hazards - Subsidence	
Environmental Degradation - Erosion	
Geological Hazards - Landslides/Mud flows	
Hydro-meteorological Hazards - Extreme Temperatures	
Geological Hazards - Earthquake	
Geological Hazards - Rock-fall	
Infrastructure Failure / Service Delivery Failure - Transport	
Pollution - Water Pollution (Fresh and Sea)	
Civil Unrest - Armed Conflict (Civil/Political War)	
Infestations - Insect Infestation	
Disease / Health - Disease: Animal	
Hazardous Material - Hazmat: Spill/Release (Storage & Transportation)	
Infestations - Animal Infestation / Over Population	
Pollution - Land Pollution	
Transport Hazards - Rail Transportation	
Infestations - Plant Infestations (Intruder Plants)	
Major Event Hazards (Cultural, Religious, Political, Recreational, Commercial, Sport)	
Civil Unrest - Terrorism	
Transport Hazards - Water Transportation	
Structural Failure - Dam failure	
Environmental Degradation - Land Degradation	
Environmental Degradation - Deforestation	
Disease / Health - Disease: Plants	
Structural Failure - Building Failure	
Transport Hazards - Air Transportation	
Pollution - Air Pollution	
Structural Failure - Bridge Failure	
Hydro-meteorological Hazards - Desertification	

Environmental Degradation - Loss of Biodiversity	
Infestations - Algal Bloom (Red Tide)	
Oceanographic – Tsunami, Sea Level Rise (Climate Change), Storm Surge	

Prioritized Risks for the ZDM Local Municipalities

eDumbe LM	uPhongolo LM
<ul style="list-style-type: none"> Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog) Fire Hazards - Formal & Informal Settlements / Urban Area Fire Hazards - Veld/Forest Fires Disease / Health - Disease: Human (HIV/AIDS & TB) Disease / Health - Disease: Human (Other Disease) Hydro-meteorological - Drought Infrastructure Failure / Service Delivery Failure - Water Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure) Infrastructure Failure / Service Delivery Failure - Electrical Civil Unrest - Crime 	<ul style="list-style-type: none"> Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog) Fire Hazards - Formal & Informal Settlements / Urban Area Fire Hazards - Veld/Forest Fires Disease / Health - Disease: Human (HIV/AIDS & TB) Disease / Health - Disease: Human (Other Disease) Hydro-meteorological - Drought Infrastructure Failure / Service Delivery Failure - Water Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure) Infrastructure Failure / Service Delivery Failure - Electrical Civil Unrest - Crime

Abaqulusi LM	Nongoma LM
<ul style="list-style-type: none"> Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog) Fire Hazards - Formal & Informal Settlements / Urban Area Fire Hazards - Veld/Forest Fires Disease / Health - Disease: Human (HIV/AIDS & TB) Disease / Health - Disease: Human (Other Disease) Infrastructure Failure / Service Delivery Failure - Water Hydro-meteorological - Drought Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure) Infrastructure Failure / Service Delivery Failure - Electrical Civil Unrest - Crime 	<ul style="list-style-type: none"> Disease / Health - Disease: Human (HIV/AIDS & TB) Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog) Disease / Health - Disease: Human (Other Disease) Fire Hazards - Formal & Informal Settlements / Urban Area Fire Hazards - Veld/Forest Fires Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure) Hydro-meteorological - Drought Infrastructure Failure / Service Delivery Failure - Water Infrastructure Failure / Service Delivery Failure - Electrical Civil Unrest - Crime

Ulundi LM
<ul style="list-style-type: none"> Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog) Disease / Health - Disease: Human (HIV/AIDS & TB) Fire Hazards - Formal & Informal Settlements / Urban Area Fire Hazards - Veld/Forest Fires Disease / Health - Disease: Human (Other Disease) Hydro-meteorological - Drought Infrastructure Failure / Service Delivery Failure - Water Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure) Infrastructure Failure / Service Delivery Failure - Electrical Civil Unrest - Crime

The following are the main disaster risk assessment conclusions and recommendations:

- i. **The highest rated risks in the municipality were related to Hydro-meteorological Hazards (Storms), Human Disease Hazards (HIV/AIDS & TB), and Fire Hazards (Veld, Forest and Settlement).**
 - a. **Hydro-meteorological Hazards:** Risks associated with storms is considered a high risk for the ZDM. This is mainly due to the vulnerability of communities in rural areas, particularly the impact of storms on agricultural activities, infrastructure and dwellings of community members in the ZDM. Uncertainty with regards to changing weather patterns (which might lead to even higher intensity events), urbanisation as well as the current vulnerability profile in the ZDM, has highlighted the need for decisive action with regards to managing risks associated with severe storms in the ZDM.
 - b. **Human Disease Hazards,** especially challenges associated with HIV/AIDS poses a challenge to the KZN Province, as well as the ZDM. HIV/AIDS not only has a serious impact on the infected individual, but also has numerous secondary impacts on affected communities, including decreased productivity of workers, increased absenteeism and additional costs of training of new workers. It also represents a greater demand and pressure on health facilities. Another serious impact related to HIV/AIDS is the problem associated with orphans and child headed households. HIV/AIDS therefore not only has the direct consequence of reduction in health, or loss of life, the secondary effects can further increase the vulnerability of communities to other non-related hazards. Other diseases included under the human health and disease category includes Tuberculosis.
 - c. **Fire Hazards:** Risks associated with fires are considered a high risk in the ZDM. This is mainly due to the characteristics of the natural environment, the role of agriculture in the district, and vast amount of rural/undeveloped areas in the ZDM. Uncertainty with regards to changing weather patterns (which might also lead to increase in fire events), as well as the current vulnerability profile in the ZDM, has increased the need to address fire hazards in the ZDM.
- ii. **Other high rated risks in the ZDM include:**
 - a. Disease / Health - Disease: Human (Other Disease)
 - b. Hydro-meteorological - Drought
 - c. Infrastructure Failure / Service Delivery Failure - Water
 - d. Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure)
 - e. Infrastructure Failure / Service Delivery Failure - Electrical
 - f. Civil Unrest - Crime
- iii. **Findings related to the Vulnerability profile of the ZDM included:**

- a. Some of the issues contributing to the vulnerability level of communities within the district includes:
 - i. Challenges related to the provision of potable water to communities;
 - ii. A lack of sanitation infrastructure and services;
 - iii. High unemployment levels and low income levels; and
 - iv. A low quality of housing units.
 - b. Some of the above issues were also identified in the ZDM as well as Local Municipality Integrated Development Plans. Some of the key issues identified in the ZDM IDP included:
 - i. Problems associated with low cost housing units;
 - ii. Poor sewerage system maintenance and infrastructure;
 - iii. Management of water resources; and
 - iv. Amenity and shelter planting.
 - c. Concerns and challenges related to the access to quality healthcare services were also identified during consultations as well as in some of the IDP documents.
 - d. A number of the priority hazards can be managed through reducing the vulnerability level in the communities – this includes improving access to quality healthcare, improved housing, and development and maintenance of infrastructure.
- iv. Findings related to the Resilience of role-players in the ZDM:**
- Not all role-players took part in the resilience assessments, and it is therefore not possible to provide a comprehensive overview of the resilience profile in the ZDM. The findings related to the results of the resilience assessment, based on the information received, indicated that:
- a. The average resilience rating for all the role-players were calculated as 1.53, which is classified as less than 'sufficient', but not yet as 'insufficient'; and
 - b. The lowest rated resources related to equipment, funding and vehicles.
- v. Activities to be implemented to reduce the vulnerability of communities in the ZDM:**
- Implement urgent measures to maintain existing infrastructure, and invest in service delivery, especially related to provision of water and sanitation services;
 - Increase access to adequate housing;
 - Increase access to quality healthcare services;

- Develop local institutions, education, training and appropriate skill development opportunities while focussing on skills development and capacity building on community level;
- Manage urbanisation, and implement and enforce the appropriate urban planning porcesses;
- Strengthen livelihoods and increase low income levels.
- Increase economic and employment opportunities by developing of the tourism and agriculture sectors in the ZDM; and
- Focus on human resource development in the municipal sphere.

Please refer to the detailed disaster risk assessment report compiled for the district for more details pertaining to the district and local municipal disaster risks.

10. DISASTER RISK REDUCTION ACTIVITIES/PROJECTS

In terms of Section 26(g) of the Municipal Systems Act, 200, Act 32 of 2000, a Municipality's IDP must contain a disaster management plan. Development projects in the Municipality, as contained in the Municipality's IDP, is thus interlinked with disaster management planning and activities. Risk reduction projects identified as part of disaster risk management planning, such as those identified in this plan and the contingency plans to be developed and risk assessments should be included into the District and local Municipal IDPs.

There are eight key planning points or requirements that must be applied by all municipal organs of state and municipalities when planning for disaster risk reduction initiatives. These must form part of the annual reporting of the municipalities and municipal organs of state to the DMC.

1. Use disaster risk assessment findings to focus planning efforts.
2. Establish an informed multidisciplinary team with capacity to address the disaster risk and identify a primary entity to facilitate the initiative.
3. Actively involve the communities or groups at risk.
4. Address the multiple vulnerabilities wherever possible
5. Plan for changing risk conditions and uncertainty, including effects of climate variability.
6. Apply the precautionary principle to avoid inadvertently increasing disaster risk.
7. Avoid unintended consequences that undermine risk avoidance behaviour and ownership of disaster risk.
8. Establish clear goals and targets for disaster risk reduction initiatives, and link monitoring and evaluation criteria to initial disaster risk assessment findings

A number of risk reduction measures can be identified related to the highest rated identified risks. These measures should be decided upon in consultation with the relevant responsible departments. Some of the possible measures are listed below:

Hazard Category	Strategy	Responsible Department
Disease / Health - Disease: Animal	Implement monitoring program	Department of Agriculture Agriculture Organization
	Implement Training / Awareness Raising Program	Disaster Management Department of Agriculture
	Implement Program to Increase Capacity to deal with Disease	Disaster Management Department of Agriculture
Disease / Health - Disease: Human (HIV, TB, Cholera)	Implement monitoring program	Department of Health
	Implement Training / Awareness Raising Program	Department of Health Disaster Management
	Implement Program to Increase Capacity to deal with Disease	Department of Health Disaster Management
Environmental Degradation	Implement monitoring program	Environmental Department
	Implement Training / Awareness Raising Program	Environmental Department
Fire Hazards - Formal & Informal Settlements / Urban Area	Increase Capacity to Respond to Fires	Fire Services
	Implement program to upgrade sub-standard housing / buildings	Department of Housing
	Implement Awareness Program	Fire Services Disaster Management
Fire Hazards - Veld/Forest Fires / Urban Fires	Increase Capacity to Respond to Fires	Fire Services Agriculture

Hazard Category	Strategy	Responsible Department
	Implement Awareness Program	Fire Services Disaster Management
Hazardous Material: Spill/Release (Storage & Transportation)	Assess and Monitor Movement and Storage of HazMat through Municipality	Fire Services
	Increase Capacity to Response to HazMat Incidents	Fire Services
Hydro-meteorological - Drought	Implement Early-Warning System	Agriculture Department of Water Affairs
	Training / Awareness Raising related to Drought resistant agriculture	Agriculture
Hydro-meteorological Hazards - Floods (Urban, River)	Implement Early-Warning System	Department of Water Affairs
	Develop Floodlines & Conduct Flood Hazard Assessment	Roads and Stormwater Disaster Management
	Implement Stormwater Management Planning and Construct suitable Stormwater Management Infrastructure	Roads and Stormwater
Hydro-meteorological Hazards - Severe Storms (Snow)	Implement Early-Warning System	Department of Water Affairs
	Implement Training / Awareness Raising Program	Disaster Management
Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Lightning)	Implement Early-Warning System	Department of Water Affairs Disaster Management
	Implement Training / Awareness Raising Program	Disaster Management
	Implement program to upgrade sub-standard housing / buildings	Department of Housing
Infestations - Plant	Implement monitoring program	Environmental Department

Hazard Category	Strategy	Responsible Department
Infestations (Alien Vegetation, Intruder Plants)	Increase capacity to respond to eradicate alien vegetation	Environmental Department Agriculture
	Implement Training / Awareness Raising Program	Environmental Department Agriculture
Infrastructure Failure / Service Delivery Failure - Electrical	Implement program for development of alternative energy sources	Environmental Department Engineering Department
	Implement program focused on development and maintenance of electrical infrastructure	Engineering Department
Infrastructure Failure / Service Delivery Failure - Sanitation	Implement program focused on development and maintenance of sanitation infrastructure	Engineering Department
Infrastructure Failure / Service Delivery Failure - Water	Implement program focused on development and maintenance of water infrastructure	Engineering Department Department of Water Affairs
Pollution - Water Pollution	Implement monitoring program	Department of Water Affairs Environmental Department
	Implement awareness and education campaign	Department of Water Affairs Disaster Management
Civil Unrest	Implement early warning/monitoring program	South African Police
	Implement Program to Increase Capacity to deal with Civil Unrest Events	South African Police

A logical framework for disaster risk reduction in the district, per hazard category, is indicated in the table below:

Logical Framework for Disaster Risk Reduction Recommendations per main hazard category-Strategic objective: Ensuring that disaster risk are reduced through prevention, mitigation and effective response and recovery			
Risk:	KPIs: Measurable performance targets	Means	Main responsible Department / Stakeholder responsible in the Municipality
Fires	Residential related fires. Awareness programmes	Awareness communication materials (pamphlets/calendars), Media campaigns	DISASTER MANAGEMENT CENTRE & FIRE SERVICES
	Veld fires. Awareness programme in and around open spaces, fire breaks administered	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Fire breaks	DISASTER MANAGEMENT CENTRE & FIRE SERVICES
	Early fire risk predictions. Early warning of high fire risk places & times, based on weather and vegetation/field condition	Early warning system, linked with Weather Services; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE & FIRE SERVICES
Industrial (including mining) fires / explosions / spillage / accidents	Survey of industries (for fire and hazardous materials risks); associated updating of hazard severity map; Compilation of hazardous materials register/database, indicating the location and contents of facilities spatially and in database format; Stakeholder meetings to confirm and refine the findings. Integrated register/database	Database design, development and population; Exact information, locality and hazardous materials known. Ensure industries have emergency and evacuation plans in place	DISASTER MANAGEMENT CENTRE
Epidemics (Human & Animal)	Epidemic statistic tracking and warnings. Early warning of possible epidemics in specific areas	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE
	Ensure potable water supply delivery to all settlements, even informal settlements if possible. Water supply delivery programmes in areas where population density is high but water supply not available	Budget allocation for water piping & supply projects	ENGINEERING & MAINTENANCE
	Immunisation programmes.	List of areas and places immunised	PUBLIC HEALTH
	Logging system and monitoring of communicable diseases on a daily basis at clinics and hospitals, on a central database. Communicable diseases report including graphs	Database of communicable diseases updated weekly/monthly; monthly digital reports presented to DMC	PUBLIC HEALTH

Logical Framework for Disaster Risk Reduction Recommendations per main hazard category-Strategic objective: Ensuring that disaster risk are reduced through prevention, mitigation and effective response and recovery			
Risk:	KPIs: Measurable performance targets	Means	Main responsible Department / Stakeholder responsible in the Municipality
Infrastructure failure: Power, sanitation, water & other key services	Co-ordination between water, electricity and sanitation services to identify cross-impacts and severity of impacts. Quarterly task group meetings	Co-ordination and integrated planning	ENGINEERING & MAINTENANCE
Surface water/land pollution	Specific incidences quickly and effectively reported and information distributed for possible evacuation. Immediate warnings once incidents take place	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE
	Industry, Mining and Private individuals compliance to pollution control requirements. Quarterly/yearly reports; Possible polluter-pays measures, Environmental education of public	List of pollution-control required industries/mines, waste sites etc, specific license requirements; database of industries/mines checked for reporting and compliance quarterly/annually; list of public education initiatives	ENVIRONMENTAL HEALTH
	Agricultural awareness. Awareness programmes with farmers with regard to pesticides, herbicides etc. control	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE
Air pollution: industrial	Monitor industrial related air pollution, in areas where applicable. Quarterly/yearly reports; Bylaws; license requirements; Possible polluter-pays measures	Industries providing proof of prevention/mitigation measures	DISASTER MANAGEMENT CENTRE
Air pollution: informal settlements	Awareness and subsequent minimisation of air pollution in communities that utilise fuel for heat and cooking, instead of electricity. Awareness programmes in informal settlements	Pamphlets and public meetings where community leaders urge community to utilise electricity rather than fires, where possible	DISASTER MANAGEMENT CENTRE
Transport: rail, road, hazmat	Road maintenance. Road maintenance projects	Budget allocation for road maintenance and upgrade projects	ENGINEERING & MAINTENANCE
	Railway maintenance. Railway maintenance projects	Budget allocation for railway maintenance and upgrade projects	SPOORNET & TRANSNET
	Specific incidences quickly and effectively reported and information distributed for possible evacuation. Immediate warnings once incidents take place	Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE

Logical Framework for Disaster Risk Reduction Recommendations per main hazard category-Strategic objective: Ensuring that disaster risk are reduced through prevention, mitigation and effective response and recovery			
Risk:	KPIs: Measurable performance targets	Means	Main responsible Department / Stakeholder responsible in the Municipality
	Hazmat transport inspections on road. Inspections	List of hazmat transporters and spot-checks to ensure they have what they are listed to carry, forwarded bi-monthly to DMC	PUBLIC HEALTH & TRAFFIC SERVICES
	Transport and container inspections by rail. Inspections	List of hazmat transporters and spot-checks to ensure they have what they are listed to carry, forwarded bi-monthly to DMC	PUBLIC HEALTH & TRAFFIC SERVICES
Transport: air	Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Reports submitted to DMC on yearly basis	DISASTER MANAGEMENT CENTRE
Major Events	Preparation and planning, and informing communities of events and disaster plans relating to it. Event plans and pamphlets	Plans designed and distributed well beforehand	DISASTER MANAGEMENT CENTRE
	Database indicating all possible venues and available evacuation and other plans for that venue	Lists of all venues that could house 250+ persons and associated risks for each, submitted to the DMC and/or Districts/Towns	DISASTER MANAGEMENT CENTRE
Drought / water shortage	Alternative dams and/or cross-border water supply negotiations	Budget and programme action plans for specific water supply schemes	ENGINEERING & MAINTENANCE
	Installation of water collection and storage containers in strategic locations	Budget and location identification for containers	ENGINEERING & MAINTENANCE
	Installation of collection and storage containers at industries and organisations	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Warnings via television, radio, newspapers, verbal.	ENGINEERING & MAINTENANCE
	Installation of collection and storage containers at private homes	Awareness communication materials (pamphlets/calendars), Media campaigns, Notice boards; Warnings via television, radio, newspapers, verbal.	ENGINEERING & MAINTENANCE
	Linkages of data to monitor long term weather patterns vs water demand. Change monitored and predictions made	Scenarios indicated and planned for	DISASTER MANAGEMENT CENTRE
	Ground water resources. Ground water resources usability known	Ground water quality survey and impact assessment	
Civil unrest (including terrorism)	Monitoring system implemented. Database with incidents indicated	Graphs and probability evaluations updated	TRAFFIC SERVICES AND SAPS

Logical Framework for Disaster Risk Reduction Recommendations per main hazard category-Strategic objective: Ensuring that disaster risk are reduced through prevention, mitigation and effective response and recovery			
Risk:	KPIs: Measurable performance targets	Means	Main responsible Department / Stakeholder responsible in the Municipality
	Incident database to be set up and maintained. Incident database updated and maintained	Incident database designed, developed and implemented; updated	TRAFFIC SERVICES AND SAPS
Floods	Assessment of dam break impacts on existing developments. Dam break flood impacts	Documentation indicating impacts and consequences	ENGINEERING & MAINTENANCE
	Develop indicative flood mapping, giving an indication of the 100-year and RMF floodlines along the major watercourses. High frequency and risk of flood events, based on past events	Major impacts on especially informal and low-income settlements	DISASTER MANAGEMENT CENTRE
	High water markers and beacons to indicate depth of rivers. Maintenance of beacons, and installation of additional high water markers	Maintaining of beacons; identification of positions for high water level markers; installation of high water markers	ENGINEERING & MAINTENANCE
	Flood hazard assessments for selected watercourses. Hazard assessment studies, reports and associated maps	Budget allocation for the various projects	DISASTER MANAGEMENT CENTRE
	Ensuring no development and building in floodline areas. Awareness programmes and law enforcement	Awareness communication materials (pamphlets/calendars), Media campaigns	INTEGRATED DEVELOPMENT PLANNING
	Stormwater maintenance. Ongoing stormwater maintenance	Stormwater asset management register and maintenance scheduled and budgeted for	ENGINEERING & MAINTENANCE
Storms	Early storm risk predictions based on weather	Early warning system, linked with Weather Services; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE
Environmental degradation	Waste site location and management. Integrated waste management plans	Drafting and acceptance of the waste management plans, and spatial data indicating location of all existing and future waste sites	ENVIRONMENTAL HEALTH
	Erosion protection, especially where sand and gravel mining is taking place. Stricter environmental controls	Decreased erosion and extraction	ENVIRONMENTAL HEALTH
Hazmat transportation	Specific incidences quickly and effectively reported and information distributed for possible evacuation. Immediate warnings once incidents take place	Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE

Logical Framework for Disaster Risk Reduction Recommendations per main hazard category-Strategic objective: Ensuring that disaster risk are reduced through prevention, mitigation and effective response and recovery			
Risk:	KPIs: Measurable performance targets	Means	Main responsible Department / Stakeholder responsible in the Municipality
	Hazmat transport inspections on ships. Inspections	List of hazmat transporters and spot-checks to ensure they have what they are listed to carry, forwarded bi-monthly to DMC	DISASTER MANAGEMENT CENTRE
	Transport and container inspections by ship. Inspections	List of hazmat transporters and spot-checks to ensure they have what they are listed to carry, forwarded bi-monthly to DMC	DISASTER MANAGEMENT CENTRE
Extreme temperatures	Early temperature risk predictions based on weather	Early warning system, linked with Weather Services; Warnings via television, radio, newspapers, verbal.	DISASTER MANAGEMENT CENTRE
Desertification	Link with Weather Services: Monitoring and studies. Draft medium-longer term contingency plans for areas at risk	Mainly monitoring	ENVIRONMENTAL HEALTH
Plant infestation /overpopulation	Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Reports submitted to DMC on yearly basis	ENVIRONMENTAL HEALTH
Animal/Insect infestation /overpopulation	Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Reports submitted to DMC on yearly basis	ENVIRONMENTAL HEALTH
Geological (Earthquake, Landslides, Subsidence, Erosion, Land Degradation)	Detailed Geological Risk Study in areas at possible risk. Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Contingency Plans for possible occurrences. Reports submitted to DMC on yearly basis	ENVIRONMENTAL HEALTH
Deforestation	Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Reports submitted to DMC on yearly basis	ENVIRONMENTAL HEALTH
Loss of biodiversity	Monitoring of types and severity of incidents that may lead to disasters. Yearly reports and inclusion of data into DMC database	Reports submitted to DMC on yearly basis	ENVIRONMENTAL HEALTH

The disaster risk assessment identified the following risk reduction guidelines for the highest rated disaster risks in the ZDM:

The main disaster risk reduction measures for the highest rated risks include:

Hydro-meteorological Hazards (Storms)

- An emphasis should be placed on the development of high quality housing infrastructure in the district;

- Buildings used for facilities such as schools, clinics, hospitals and police stations should also be upgraded to withstand general storm events;
- Economic development and diversification of economic activities should also be encouraged to reduce the dependency on activities that are vulnerable to major storm events.

Human Disease Hazards (HIV & TB)

- Ensure potable water supply delivery and sanitation to all settlements.
- Implement measures to increase access to high quality health services.
- Epidemic and health statistic tracking and warnings enabling early warning of possible epidemics.
- Continue with existing HIV/AIDS programmes, and monitor effectiveness of implemented actions;
- Logging system and monitoring of communicable diseases on a daily basis at clinics and hospitals, on a central database.

Fire Hazards

- Awareness programme in high fire risk, and around open spaces, with fire breaks administered;
- Early fire risk predictions. Early warning of high fire risk locations & times, based on weather and vegetation/field condition; and
- Capacity building and response planning in terms of fire response.

Activities to be implemented to reduce the vulnerability of communities in the ZDM:

- Implement urgent measures to maintain existing infrastructure, and invest in service delivery, especially related to provision of water and sanitation services;
- Increase access to adequate housing;
- Increase access to quality healthcare services;
- Develop local institutions, education, training and appropriate skill development opportunities while focussing on skills development and capacity building on community level;
- Manage urbanisation, and implement and enforce the appropriate urban planning processes;
- Strengthen livelihoods and increase low income levels.

- Increase economic and employment opportunities by developing of the tourism and agriculture sectors in the ZDM; and
- Focus on human resource development in the municipal sphere.

The Zululand Municipal Disaster Risk Management Centre must ensure that response and recovery plans and disaster risk reduction plans, programmes and projects are incorporated into IDPs, spatial development frameworks, environmental management plans and other strategic developmental plans and initiatives in the Zululand District Municipality and in the local municipalities in the district.

10.1 Protection of critical infrastructure

Critical infrastructure includes assets and networks, physical or virtual, that is essential for the functioning of a society and economy.

This infrastructure is found in the following sectors/areas:

- Energy
- Communications
- Transportation
- Health Systems
- Public Safety and Security
- Public Administration
- Financial Sector
- Educational Systems
- Water and Sewerage
- Agriculture and Food
- Chemicals and Hazardous Material

Critical infrastructure in the Municipality will be pro-actively protected and a critical infrastructure protection plan will be developed by the Municipality.

11. DISASTER RESPONSE, RECOVERY AND RECONSTRUCTION

11.1 Contingency planning

In terms of sections 52 and 53 of the Disaster Management Act, Act 57 of 2002, (the Act) each municipality and municipal entity must draft disaster management plans for their area. These plans include contingency strategies and emergency procedures.

In terms of section 54 of the Act, a Municipality must deal with a local disaster through existing legislation and contingency arrangements, even if a local state of disaster is not declared.

In terms of the National Disaster Management Framework, contingency planning is defined as follows:

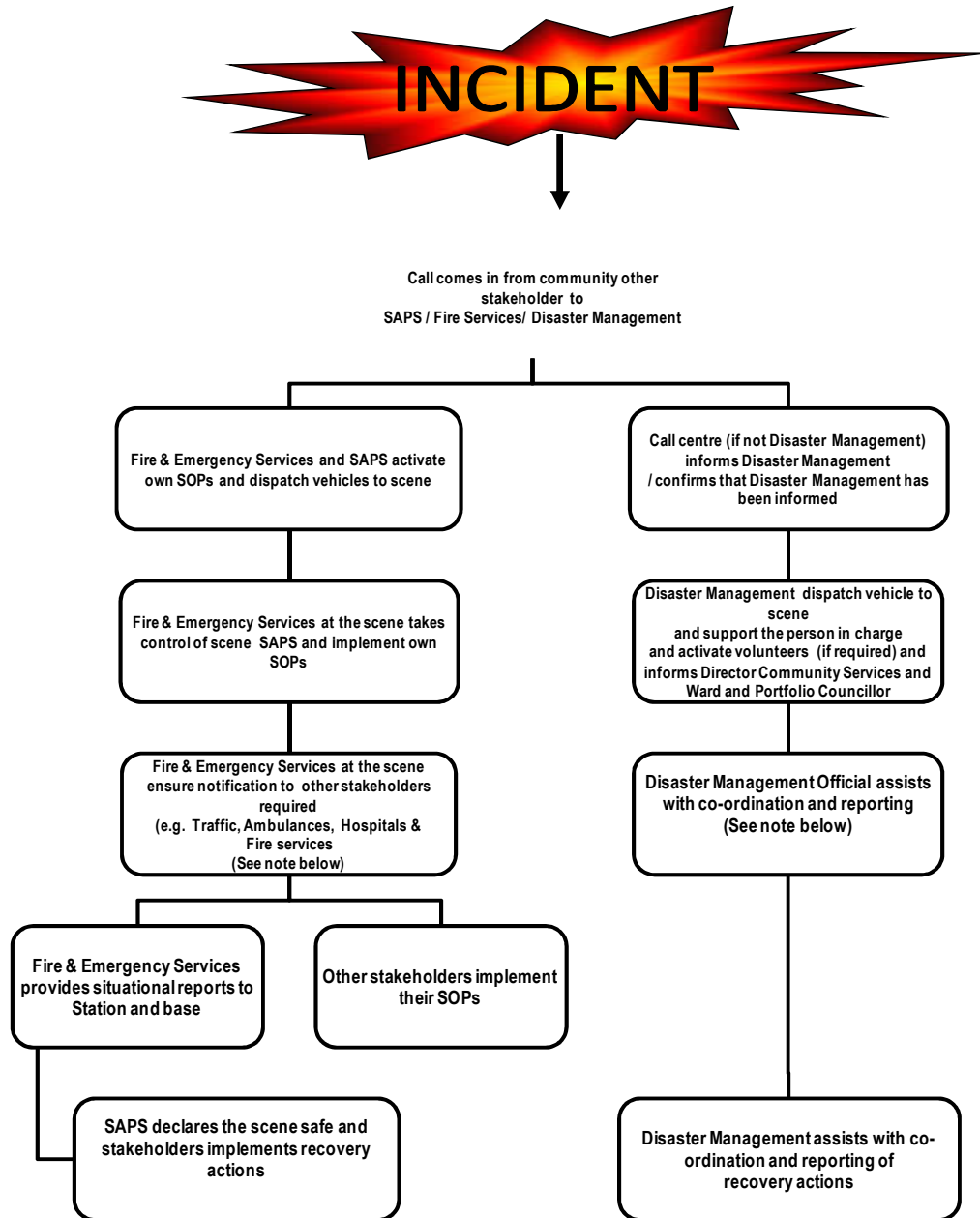
The forward planning process for an event that may or may not occur, in which scenarios and objectives are agreed, managerial and technical actions defined, and potential response systems put in place to prevent, or respond effectively to, an emergency situation.

According to section 53(2)(k) of the Act, contingency plans should address:

- the allocation of responsibilities to the various role-players and co-ordination in the carrying out of those responsibilities;
- prompt disaster response and relief;
- the procurement of essential goods and services;
- the establishment of strategic communication links;
- the dissemination of information.

Contingency plans for major disaster risks have been developed and available at the Municipal Disaster Management Centre. Hazard specific disaster response actions will be identified in the contingency plans, but a generic disaster response flowchart is indicated below.

GENERIC RESPONSE AND RECOVERY FLOW CHART



Note: A Joint Operations Centre (JOC) can be established at the scene, depending on the scene's requirements.

11.2 Immediate and effective response

In terms of section 55(2) of the Act, the following can immediately be implemented once a local state of disaster has been declared:

(a) the release of any available resources of the municipality, including stores, equipment, vehicles and facilities;

(b) the release of personnel of the municipality for the rendering of emergency services;

(c) the implementation of all or any of the provisions of a municipal disaster management plan that are applicable in the circumstances;

(d) the evacuation to temporary shelters of all or part of the population from the disaster-stricken or threatened area if such action is necessary for the preservation of life;

(e) the regulation of traffic to, from or within the disaster-stricken or threatened area;

(f) the regulation of the movement of persons and goods to, from or within the disaster-stricken or threatened area;

(g) the control and occupancy of premises in the disaster-stricken or threatened area;

(h) the provision, control or use of temporary emergency accommodation;

(i) the suspension or limiting of the sale, dispensing or transportation of alcoholic beverages in the disaster-stricken or threatened area;

(j) the maintenance or installation of temporary lines of communication to, from or within the disaster area;

(k) the dissemination of information required for dealing with the disaster;

(l) emergency procurement procedures;

(m) the facilitation of response and post-disaster recovery and rehabilitation; or

(n) other steps that may be necessary to prevent an escalation of the disaster, or to alleviate, contain and minimise the effects of the disaster.

In reading section 54 of the act, the above will be pro-actively be implemented by the Zululand District Municipality, as required, depending on the requirements of the incident and availability of resources, **irrespective of a local state of disaster has been declared or not.**

11.3 Disaster relief

A Disaster Relief Strategy will be furthered, which will inter alia address the following matters:

- The link with SASSA and related legislation (see below**)
- Database of resources
- Manpower & resources contingencies
- Effective needs assessments
- Education as part of relief provision and sustainable relief provision, linking to prevention/mitigation
- Relief protocols, including communication
- 'Emergency kits'
- Venues for relief
- Relief reporting
- Funding & procurement

****Mandate for SASSA**

The mandate of the Agency is to ensure the provision of comprehensive social security services against vulnerability and poverty within the constitutional and legislative framework

****Legislative Mandate for SASSA**

Social Assistance Act, 2004

The Act provides a national legislative framework for the provision of different types of social grants, social relief of distress, the delivery of social assistance grants by a national Agency and the establishment of an Inspectorate for Social Security.

South African Social Security Agency Act, 2004

The Act provides for the establishment of the South African Social Security Agency as a schedule 3A public entity in terms of the PFMA. The principle aim of the Act is to make provision for the effective management, administration and payment of social assistance and service through the establishment of the South African Social Security Agency. The President signed the Act on the 28th May 2004.

11.4 Post disaster impact assessments

After a disaster the following disaster impact assessment activities will be undertaken, including an impact analysis relating to:

- Direct and indirect impact on communities;
- Social impact;
- Agricultural impact;
- Infrastructural impact, including critical infrastructure;
- Environmental impact; and
- Economic impact.

The assessment will also include an evaluation of the response efforts of the various departments and role-players. The results from the assessment will be used to determine the overall impact of the event on the Municipality, identify gaps in the current disaster contingency plans, and also identify suitable improvements required to increase the resilience of the Municipality to disasters or extreme events.

12. LOGISTICS

12.1 Introduction

Whether during disaster response, or while implementing mitigation activities, the basic task of a logistics system is to deliver the appropriate supplies, in good condition, in the quantities required, and at the place and time they are needed⁷. The type of supplies or goods transported in the specific logistical system will be influenced by the operation and activities supported by the logistical system, for example, if the aim is emergency relief, the good might include food or shelter items; while, if a reconstruction or rehabilitation initiative is implemented, the goods transported might include equipment, or construction material. Therefore, irrespective of the disaster phase for which the logistical system is required and implemented (prevention, mitigation, response, recovery), some general considerations can be identified.

The aim of this section is to provide an overview of a general logistical system, and to provide guidance on conducting planning for logistical support during disaster mitigation activities.

12.2 Role of Logistics in Mitigation Activities

For the purpose of this discussion, Mitigation activities will be considered to include components such as Preparedness, Recovery and Reconstruction. Mitigation activities can generally also be grouped into two levels, namely structural and non-structural. Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk and related impacts.⁸ In terms of logistical systems in support of mitigation activities, and in line with the above mentioned definition, the aim of mitigation logistics will be to ensure appropriate mitigation related supplies or goods, in good condition, in the quantities required, are available at the place and time they are needed in order to implement preparedness, recovery and reconstruction activities. These items can include, amongst others:

- **Equipment**
 - Construction (Concrete Mixers and Pumps, Scaffolding, Construction Plant, Earthwork Machinery, etc)
 - Communication and Information Technology (Radio broadcasting, receiving, Cabling, Networks, Servers, etc.)
 - Office Equipment (Computer, Photocopiers, Printers, Plotters, etc.)
- **Tools** (Power tools, Hand tools, Cleaning tools, Machine tools, Measuring tools, Surveying tools, Electrical, Kitchen, etc.);

⁷ Stephenson, R.S. 1993. Logistics. 1st Edition. Disaster Management Training Programme. UNDP.

⁸ International Strategy for Disaster Reduction, Terminology: Basic terms of disaster risk reduction

- **Furniture** (Desks, tables, chairs, beds, etc.);
- **Vehicles** (Air, Land, Water vehicles) (Freight transport, People carriers, Medical vehicles, communication vehicles, etc.);
- **Construction Material** (Wood, Metals, Stone, Water, etc.);
- **Food Material;**
- **Human Resources** (Specialists, support staff, construction workers, field workers, disaster victims, etc.); and
- **Disaster Waste. Solid and liquid waste generated from a disaster, including**
 - Concrete, steel, wood, clay and tar elements from damaged buildings and infrastructures;
 - Parts from the power and telephone grids such as electrical poles, wire, electronic equipment, transformers;
 - Parts from water and sewage distribution systems;
 - Natural debris such as clay, mud, trees;
 - Chemicals, dyes and other raw materials from industries and workshops;
 - Waste from relief operations;
 - Waste from disaster settlements and camps including food waste, packaging materials, excreta and other wastes from relief supplies; and
 - Healthcare waste.⁹

All of these items might be required to support the implemented mitigation activities, be it preparedness, recovery or reconstruction related.

12.3 Overview of Logistics

The UNDAC¹⁰ indicates that: *“Emergency logistics is a “systems exercise” and requires:*

- *Delivery of the appropriate supplies in good condition, when and where they are needed;*
- *A wide range of transport, often improvised at the local level;*
- *Limited, rapid, and specific deliveries from outside the area;*
- *A system of prioritising various relief inputs;*
- *Storing, staging, and moving bulk commodities;*
- *Moving people;*
- *Coordination and prioritization of the use of limited and shared transport assets; and*
- *Possible military involvement in logistics support (especially in cases of civil conflict).*

Main factors in the operating environment which shape the response are:

- *Capacity of the infrastructure;*
- *Availability and quantity of transport assets in the country;*
- *Politics of the situation; and*
- *Civil conflict in the area of operations.”¹¹*

⁹ Disaster Waste Management Guidelines. Joint UNEP/OCHA Environment Unit (2011)

¹⁰ United Nations Disaster Assessment and Coordination (UNDAC) Handbook. (2006)

Even though the above relates specifically to 'Emergency logistics' the above mentioned aspects apply equally to logistics during the mitigation phase.

12.4 Components and Requirements of Logistical System Structure of a Logistical System

A logistical system will generally consist of the following components:

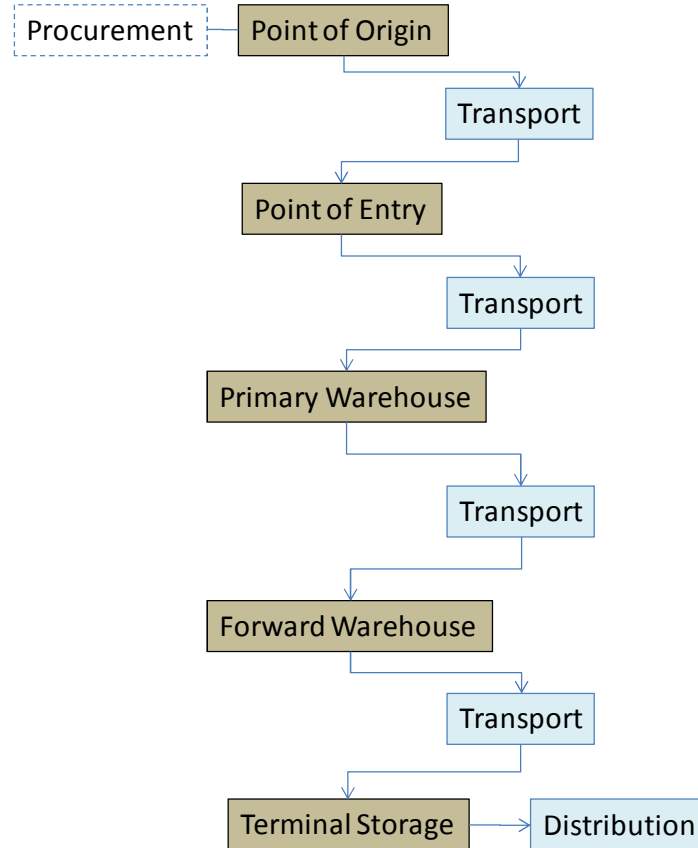


Table 1 – Logistical Flow and Components in Logistical Process^{12,13}

Generally speaking, the further down in the logistical flow, the smaller the used vehicles will be. The transportation means will usually start with ships, trains or aircraft, through big trucks with trailers or semi-trailers, to smaller trucks or even smaller four-by-four vehicles.¹⁴

12.5 Required Facilities and Equipment

The following function will form part of the logistical system, while a number of facilities will be required to support these functions:

Logistical Functions	Logistical Facilities
<ul style="list-style-type: none"> Management; 	<ul style="list-style-type: none"> Offices and administrative equipment;

¹¹ United Nations Disaster Assessment and Coordination (UNDAC) Handbook. (2006)

¹² United Nations Disaster Assessment and Coordination (UNDAC) Handbook. (2006)

¹³ Logistical Management of Humanitarian Supply Manual. Panamerican Health Organization. Regional Bureau of the World Health Organization. (2000)

¹⁴ United Nations Disaster Assessment and Coordination (UNDAC) Handbook. (2006)

<ul style="list-style-type: none"> • Central support; • Procurement; • Port clearance; • Warehouse/storage; • Transport; • Scheduling; • Communications; • Commodity control; and • Distribution control. 	<ul style="list-style-type: none"> • Warehouses at various levels; • Fuel and spares stores; • Workshops; • Vehicle parks; • Vehicles for management staff; • Fleets of trucks; • Special vehicles such as cranes, tankers and cargo-handling machines; • Communications equipment; and • Accommodations.
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Table 2 –Logistical Functions and Facilities¹⁵

These functions and facilities should be taken into account when developing a logistical plan.

12.6 Role Players in Logistics

A number of role-players are involved in the logistical process, and should be considered in the logistical planning process. Some of the role-players involved in emergencies include:¹⁶

- **Multilateral agencies:** In general terms, these are organizations formed by several governments and include disaster assistance among their objectives, such as the United Nations. Their collaboration is generally focused on technical assistance related to the issues dealt with by their different agencies, sending of consultants and experts on these topics, and support to look for and channel assistance resources for the affected country. Multilateral agencies can often provide valuable expertise and support in terms of logistical processes.
- **Neighboring communities or regions:** It is common to have contributions in kind and spontaneous volunteers from regions or countries neighboring the affected area.
- **National or local government of the affected region or country:** A major event usually brings about the intervention not only of the national authority on disasters but also of other governmental institutions. This is especially the case with logistics, where a range different role players need to coordinate activities to ensure the availability, storage, transportation and delivery of goods or people. A key role-player in this regard will include border control / customs departments, who needs to ensure the swift processing and transportation of goods through the relevant ports of entry.
- **Military organizations:** Usually they have a wide supply of equipment and experience that may be used to support logistic operations. These include means of transportation, manpower, bridge and road construction, etc. However, the use of this resource must be carefully appraised whenever the army is an active participant in a conflict, as in these cases it may be unwise to use it for security reasons.

¹⁵ Based on United Nations Disaster Assessment and Coordination (UNDAC) Handbook. (2006)

¹⁶ Based on Logistical Management of Humanitarian Supply Manual. Panamerican Health Organization. Regional Bureau of the World Health Organization. (2000)

- **Non-governmental organizations (NGO):** These may be national or international and include religious and social organizations. The abilities, experience, and resources are usually very varied. There are international NGOs specializing in emergencies and with appropriate intervention skills and resources.
- **Specialized institutions:** These groups may provide crucial technical assistance to deal with specific issues, such as vulnerability analysis, risk mitigation, needs assessment, or other more practical issues such as water potability, medical supply management, etc.
- **The private and commercial sector, national and international:** This section may become involved at different levels ranging from donations to contracting their specialized services (transportation, storage room renting, equipment manufacturing, etc.).
- **Local population:** The inhabitants of the disaster area are the first to provide aid and who also assist with contributions in kind for the victims. The role of local populations, familiar with the affected area, should not be underestimated.

12.7 The Logistical Plan

Planning and preparedness is vital to establish an adequate logistics system. This planning should be based on good knowledge of the geographic, social, political, and physical context in which the operations are to be implemented¹⁷. After a suitable plan has been compiled, it is also important to ensure effective implementation through the required operations plan. The plan should respond to the following questions with clear, detailed answers:¹⁸

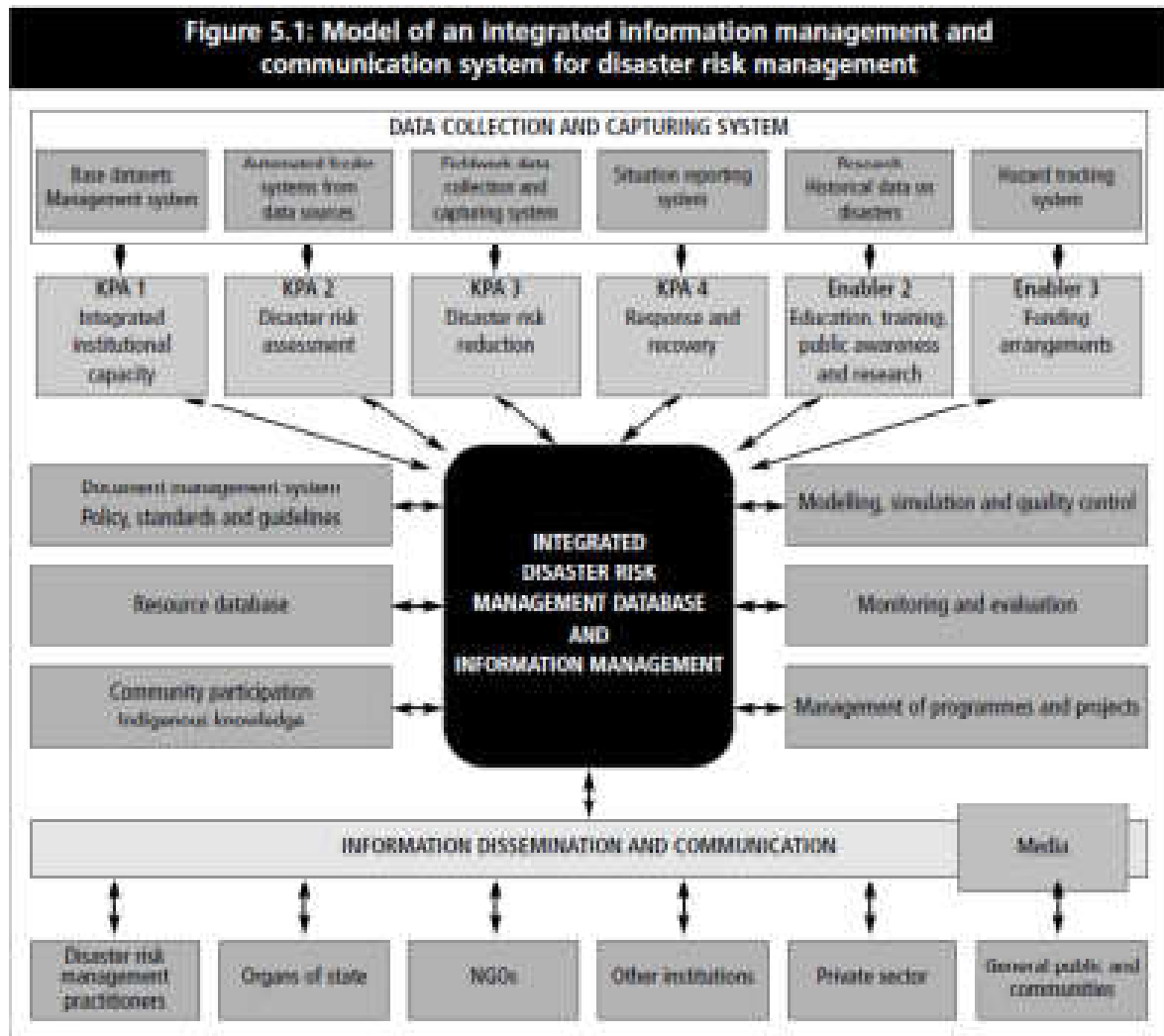
- Which tasks are to be performed? How do they relate to other activities, and what is the sequence for their implementation?
- Who are responsible for these tasks? (List specific organizations/departments).
- Who will be in charge of the global coordination of the logistics system?
- Which resources will be necessary? How and where will they be acquired?
- Which alternative actions will be implemented in case the defined system breaks down?

13. INFORMATION MANAGEMENT AND COMMUNICATION

The Zululand District Municipality will adhere to the *Integrated information management and communication model* as contained in the NDMF, summarised below:

¹⁷ Based on Logistical Management of Humanitarian Supply Manual. Panamerican Health Organization. Regional Bureau of the World Health Organization. (2000)

¹⁸ Based on Logistical Management of Humanitarian Supply Manual. Panamerican Health Organization. Regional Bureau of the World Health Organization. (2000)



Effective communication is paramount to effective disaster management planning and implementation. Each stakeholder's communication, dispatching and other procedural arrangements are governed by its functional role and its related standard operating procedures. Details of specific disaster incident communication protocols are contained in the disaster contingency plans, where such details are required.

Communication during a disaster or major incident needs to be fast and require the provisioning of accurate information. Designated resources that would be favourably positioned to convey messages and collect information would be communications officers who would act as a communication and information coordinating hub and municipal representatives who would be in familiar with and trusted by local communities.

The involvement of communities is becoming more prominent to ensure resilience and sustainability.

At the heart of participative strategies is the requirement for a sustainable municipal representative that communities will trust and allow should meetings be held for capacity building or information dissemination.

The nature of communication and information management before an incident is largely gathering and making information available regarding the incident. During the incident it is critical to maintain situational awareness and understanding. In order to fulfill this requirement speed of delivery, accessibility and accuracy is very important. SMSs, direct phone calls and even two-way radios are preferred mechanisms. After an incident the coordination of recovery incidents would need to take place. For this purpose emails and meetings would be sufficient.

A stakeholder contacts database has been developed and available. Specific stakeholder contact details are also contained in the disaster contingency plans.

14. EDUCATION, TRAINING, PUBLIC AWARENESS AND RESEARCH

Communication and stakeholder participation in disaster risk management in The Zululand District Municipality will be executed through a consultative process, education and public awareness, initiated by the Zululand District Municipality disaster management function. These processes will include the development of disaster risk management information leaflets, training programmes, media and local-level meetings with disaster risk management role players, including non-governmental institutions (to be preferably invited / co-opted on the local disaster management committee) and the local traditional and community leaders, schools, clinics and communities.

Although the main responsibility to plan for, ensure budgeting and executing education, training and research (and the publication and communication of the results thereof) lies with the Zululand District Municipality disaster management function, local Municipalities and Municipal departments, organs of state and municipal entities will also address these elements pro-actively. This will be co-ordinated through to the Zululand District disaster management

function and the results communicated to the KZN Province Provincial DMC, NDMC and the local disaster management committee.

Training on disaster risk management in The Zululand District Municipality will be in accordance with the NDMF and National Guidelines in this regard. Training can be of an accredited or non-accredited nature. Practical, 'hands-on' training of The Zululand District Municipality and local municipal disaster management officials need to be executed to ensure that at least the following capabilities have been efficiently established in the Zululand District Municipality disaster management function:

- Public Awareness: Public Awareness is ongoing
- Education: to have brochures for disaster management for primary schools
- Training: training of staff on emergency evacuation
- Integrating all of the above into an effective The Zululand District Disaster Management operation.

Communication and stakeholder participation in disaster risk management in the Zululand District Municipality is executed through a consultative process, education and public awareness, initiated by the Zululand District Municipality disaster management function. These processes includes the development of disaster risk management information leaflets, training programmes, media and local-level meetings with disaster risk management role players, including non-governmental institutions (to be preferably invited / co-opted on the local disaster management committee) and the local traditional and community leaders, schools, clinics and communities.

As part of gathering indigenous knowledge (part of detailed hazard identification), at municipal level, local communities and structures will be orientated on the requirements of the Act and the specific element and information required from them in terms of the Act.

Through the hazard identification and disaster information management dissemination processes, indigenous knowledge via local communities and local structure representatives will consequently be directly acquired and involved.

Cross-border disaster risk management co-operation and co-planning is crucial and will be facilitated through the Zululand District disaster management function within the protocols of Government and as made provision for in section 1.4.4 and 1.4.5 of the NDMF. Memoranda of Understanding will be signed with bordering Municipalities, Districts and Provinces (*section 33 (4) of the Act and sections 1.2.4.1, 1.2.5.1, 1.4.4 and 1.4.5 of the NDMF*).

Disaster risk management actions and initiatives, such as result of important meetings and new projects, will be communicated to the communities' via media or otherwise.

The Zululand District Disaster Management, along with District, Provincial and Municipal organs of state and municipalities will also formulate and implement appropriate disaster risk management public awareness programmes that are aligned with the national disaster risk management public awareness strategy and will play an active part in engaging schools to ensure a practical approach to education and awareness programmes.

School disaster risk management awareness programmes in The Zululand District Municipality will be conducted, assessed and adapted on an annual basis. Community resilience-building is crucial and a first capacity-building priority is the consultative development of a uniform approach to community-based risk assessment for municipalities and non-governmental and community-based organisations throughout The Zululand District Municipality. This will contribute considerably to closer links between disaster risk reduction and development planning in disaster-prone areas and communities.

15. INTEGRATED REPORTING, MONITORING AND EVALUATION

The Act requires that the Zululand District Disaster Management will monitor progress, prevention, mitigation and response and compliance with the Act and measure performance in this regard.

Taking into consideration the requirements of the NDMF, the following approach will be followed in this regard:

- Taking cognisance of the KPIs defined in the DMF, investigating requirements and creating a formal disaster risk management performance management process for The Zululand District Municipality. This will include development of a series of checklists to assist with future monitoring and evaluation processes and a procedures guideline document to be used by The Zululand District and local municipal disaster management functions' personnel.
- Reviewing the results of disasters and major incidents in areas where these have occurred and developing contingency arrangements in the interim from lessons learned. This is a simplified example and does not aim to replace any formal reporting templates prescribed by the PDMC or NDMC, such as the PPO management mechanism.
- Conducting rehearsal and simulation exercises.
- Constant progress reporting to the PDMC and NDMC, as may be required by these institutions and reports to the Municipal Council as required by Council.

Disaster Incident Reporting will occur in the formats prescribed by the District and/or Provincial DMCs externally and in the formats required by the Municipal Council internally.

An example of a format for reporting on disasters or major incidents is attached as **Appendix B**. This is a simplified example and does not aim to replace any formal reporting templates prescribed by the PDMC or NDMC, such as the National Incident Reporting System.

16. FUNDING ARRANGEMENTS

Funding arrangements for disaster risk management are specified in the NDMF as indicated below and these guidelines will be followed in the district.

Table 7.1: Funding arrangements for disaster risk management		
Activity	Funding source	Funding mechanism
Start-up activities (KPA 1, Enabler 1)	National government	Conditional grant for local government – district and metropolitan municipalities, where necessary
		Conditional grant for provinces with counter-funding component ¹
		Budget of national departments
Disaster risk management ongoing operations (KPAs 2 and 3)	National and provincial government	Own departmental budgets
	New assignment to local government	Increase in the 1 (Institutional) component of the equitable share of local government
Disaster risk reduction (KPAs 2 and 3)	National departments	Own budgets
	Provincial departments	Own budgets but can be augmented by application for funding to the NDMC for special national priority risk reduction projects
	District municipalities	Own budgets but can be augmented by application for funding to the NDMC for special national priority risk reduction projects
	In the case of low-capacity, resource-poor municipalities ²	Additional funding released from the NDMC targeted at these categories of municipalities
Response, recovery and rehabilitation and reconstruction efforts (KPA 4)	National government	Own budget for those departments frequently affected by disasters
		Access to central contingency funds
		Reprioritise within capital budgets for infrastructure reconstruction
	Provincial government	Own budget, particularly for those departments frequently affected by disasters
		Conditional infrastructure grants
		Access to central contingency fund once threshold is exceeded on a matching basis
		Reprioritise within capital budget for infrastructure reconstruction
Local government	Access to central contingency fund once threshold is exceeded	
	Conditional infrastructure grant, i.e. Municipal Infrastructure Grant (MIG)	
Education, training and capacity-building programmes (Enabler 2)	All spheres of government	Own budgets and reimbursement through SETAs
		Public awareness programmes and research activities can also be funded through the private sector, research foundations, NGOs and donor funding
Notes:		
1. The suggested ratio for counter-funding is 85:15, i.e. 15 per cent of all start-up costs being funded by provincial government.		
2. Low-capacity, resource-poor municipalities should be identified through the creation of a composite index that takes into account the operating income of municipalities and their capacity classification as determined by National Treasury.		
Source: Partially adapted from FFC, <i>Submission on the Division of Revenue 2003/04</i> , Midrand, p. 96.		

“Cost expenditure on routine disaster risk management activities must be funded through the budgets of the relevant organs of state. Preparedness must be funded through the budgets of national, provincial and local organs of state as part of their routine disaster risk management activities”.

In light of the above it is evident that the district municipality and all local municipalities in the district must fund and implement disaster risk management from their own budgets.

The district municipality may assist local municipalities from time to time with regard to funding for disaster risk reduction activities, but this does not release the local municipal councils from their responsibilities in this regard.

17. ACTION PLAN FOR FURTHER IMPLEMENTATION AND GUIDELINES

Refer to Appendix A. These actions will be included as projects into the Municipal IDP.

Read with **Appendix A** and section 7 of this plan, the National Guidelines (***South African Disaster Risk Management Handbook Series, for district municipalities***), read with the South African National Standards (see section 4.5) are applicable to effective future implementation of disaster risk reduction in the district and each local municipality:

18. CONCLUSION

As required by the NDMF, the focus of this plan was to establish a foundation for institutional arrangements for disaster risk management in the Municipality, putting in place contingency arrangements for responding to known priority threats as identified in the initial stages of the disaster risk assessment, identifying key governmental and other stakeholders, and developing the capability to generate a Level 2 Disaster Risk Management Plan. These aspects have been addressed in this document.

APPENDIX A: ACTION PLAN FOR FURTHER IMPLEMENTATION OF DISASTER RISK MANAGEMENT IN THE ZULULAND DISTRICT MUNICIPALITY 2014/2015 FINANCIAL YEAR

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
KEY PERFORMANCE AREA 1: ESTABLISH INTEGRATED INSTITUTIONAL CAPACITY				
IMPERATIVE 1.1 Establish functionally effective arrangements for the development and adoption of an integrated policy for Disaster Risk Management	Disaster Management Centre	The District Disaster Management Policy Framework has to be updated.	30 June 2015	R80,000
IMPERATIVE 1.2 Establish functionally effective	Disaster Management Centre, in collaboration	The DMC need to be fully established (housed), staffed and equipped.	Package Business Plan for funding by 30 June 2015	R 5,000,000

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
arrangements for integrated direction and implementation of the Disaster Management Act, 2002; the NDMF; the provincial and district DMFs.	with all departments and external stakeholders	<p>The Head of the Centre has been formally appointed.</p> <p>The DMAF and committees have been established and will be furthered.</p> <p>An MIDRMC will be established.</p> <p>All Local Municipalities must establish their own disaster management function with staff and equipment.</p>	<p>Constant</p> <p>Package Business Plan for funding by 30 June 2015</p>	
IMPERATIVE 1.3 Establish functionally effective	Disaster Management Centre	Stakeholders are constantly being invited to planning and input sessions pertaining to	Constant	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
arrangements for stakeholder participation and the engagement of technical advice in disaster risk management planning and operations		disaster risk assessments and planning.		
IMPERATIVE 1.4 Establish functionally effective arrangements for national, regional and international cooperation for disaster risk management	Disaster Management Centre	The DMC is working in close collaboration with Provincial and National and Namibian Disaster Management Centres and institutions, as well as neighbouring municipalities and provinces and the private sector. Memoranda of understanding / mutual assistance	Ongoing	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		agreements with main stakeholders need to be identified and finalised.		
KEY PERFORMANCE AREA 2: CONDUCT DISASTER RISK ASSESSMENTS AND MONITOR DISASTER RISK TO INFORM DISASTER RISK MANAGEMENT PLANNING AND DISASTER RISK REDUCTION UNDERTAKEN BY ORGANS OF STATE AND OTHER ROLE PLAYERS				

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
<p>IMPERATIVE</p> <p>2.1 Conduct comprehensive disaster risk assessments to inform disaster risk management and risk reduction policies, planning and programming</p>	Disaster Management Centre	Review identified activities Disaster Management Plan	Review Disaster Management Plan by 30 June 2015	R 400,000
<p>IMPERATIVE</p> <p>2.2 Generate an Indicative Disaster Risk Profile for the NMBMM</p>	Disaster Management Centre	A disaster risk profile has been generated in 2011 and the results of the assessment are available at the DMC.	Submitt Business Plan for funding by 30 June 2015	R 500,000
<p>IMPERATIVE</p> <p>2.3 Identify and establish effective mechanisms to monitor, update and disseminate</p>	Disaster Management Centre	This is being executed by the Disaster Management Centre	Constant	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
disaster risk information				
<p>IMPERATIVE</p> <p>Identify and apply mechanisms to conduct quality control</p>	Disaster Management Centre	<p>The municipal disaster risk management centre need to appoint technical advisory committees comprising the relevant specialist scientific and technical expertise in the relevant sphere to assist with monitoring standards and progress of disaster risk assessments and with the validation and/or interpretation of findings. The methodology and results of the</p>	<p>Established already.</p> <p>Ongoing quarterly meetings are held to monitor.</p>	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		disaster risk assessments have been subjected to an independent technical review process and external validation.		
KEY PERFORMANCE AREA 3: DEVELOP AND IMPLEMENT INTEGRATED AND RELEVANT DISASTER RISK MANAGEMENT PLANS AND RISK REDUCTION PROGRAMMES IN ACCORDANCE WITH APPROVED FRAMEWORKS				

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
<p>IMPERATIVE</p> <p>3.1 Compile and implement integrated and relevant disaster risk management plans</p>	Disaster Management Centre, all municipal departments and Municipal Entities	This Disaster Management Plan has been drafted. All local municipalities and municipal departments and municipal entities still need to draft / update their disaster management plans.	Funding is an issue. Business Plan to be submitted to funding sources by June 2015	NA
<p>IMPERATIVE</p> <p>3.2 Determine municipal priority disaster risks and priority areas, communities and households</p>	Disaster Management Centre	A disaster risk profile has been generated in 2011 and the results of the assessment are available at the DMC.	May be done with the review of the Plan by 30 June 2015	R 400,000
<p>IMPERATIVE</p> <p>3.3 Scope and develop disaster risk reduction</p>	Disaster Management Centre, all municipal	This has been executed as part of the development of this plan, but still	May be done with the review of the Plan by 30	NA

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
plans, projects and programmes	departments and Municipal Entities	need to be executed by all municipal departments and Municipal Entities	June 2015	
<p>IMPERATIVE</p> <p>3.4 Incorporate disaster risk reduction efforts into strategic integrating structures and processes</p>	Municipal Management, Disaster Management Centre, all municipal departments and Municipal Entities	<p>This Disaster Management Plan will be incorporated into the Municipal IDP.</p> <p>Risk-related information will be incorporated into spatial development and environmental management frameworks.</p> <p>Mechanisms to disseminate experience from pilot and research projects that</p>	<p>Constant</p> <p>Constant</p>	NA

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		<p>explore the vulnerability reduction potential, appropriateness, cost-effectiveness and sustainability of specific disaster risk reduction initiatives will be further established.</p> <p>Case studies and best-practice guides in disaster risk reduction, facilitated by the municipal disaster risk management centre, will be generated and disseminated.</p> <p>Disaster risk reduction programmes, projects and initiatives need to</p>	Constant	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		<p>be implemented by municipal departments, the DMA (if applicable), local municipalities and any other municipal entities.</p> <p>Regulations, standards, minimum criteria, by-laws and other legal instruments that encourage risk-avoidance behaviour need to be constantly enforced by municipal departments and other entities and documented in annual reports to the municipal disaster risk management</p>		

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		centre, the NDMC and the provincial disaster risk management centre concerned.		
KEY PERFORMANCE AREA 4: DEVELOP AND IMPLEMENT MECHANISMS TO ENSURE APPROPRIATE AND EFFECTIVE DISASTER RESPONSE AND RECOVERY IN ACCORDANCE WITH STATUTORY REQUIREMENTS				
IMPERATIVE 4.1 Identify and implement	Disaster Management Centre, all municipal	Effective and appropriate early warning strategies will be further	Constant	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
mechanisms for the dissemination of early warnings	departments and Municipal Entities	developed and implemented and the information communicated to stakeholders to enable appropriate responses. Strategic emergency communication links will be further established in high-risk areas and communities.		
IMPERATIVE 4.2 Develop and implement mechanisms for the assessment of significant events and/or disasters for the purposes of classification	Disaster Management Centre	Uniform methods for the assessment and costing of significant events or disasters, which are consistent with national requirements, will be developed and adopted.	Will be done as part of the review of the Disaster Management Plan by 30 June 2015	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
and declarations of a state of disaster to ensure rapid and effective response		<p>Mechanisms for the rapid and effective classification of a disaster and the declaration of a state of disaster have been established.</p> <p>Mechanisms for conducting disaster reviews and reporting, including mechanisms to enable assessments that will comply with the provisions of sections 56 and 57 of the DM Act, have been developed and implemented.</p> <p>Research reports on significant events and trends are routinely submitted</p>		

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		<p>to the municipal disaster risk management centre, the NDMC and the relevant provincial disaster risk management centre, and are disseminated to stakeholders.</p> <p>Review reports on actual disasters are routinely submitted to the municipal disaster risk management centre, the NDMC and the relevant provincial disaster risk management centre, and are disseminated to stakeholders.</p>		

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
<p>IMPERATIVE</p> <p>4.3 Develop and implemented mechanisms to ensure integrated response and recovery efforts</p>	<p>Disaster Management Centre, all municipal departments and Municipal Entities</p>	<p>The municipal departments, local municipalities and any other entities that should bear primary responsibility for contingency planning and the coordination of known hazards have been identified and allocated such responsibility.</p> <p>Stakeholders who must bear secondary responsibility for contingency planning and the coordination of known hazards have been identified and</p>	<p>30 June 2015</p>	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		<p>allocated such responsibility.</p> <p>Contingency Plans for certain known hazards need to be developed and implemented by all municipal departments, local municipalities and any other municipal entities.</p> <p>Response and recovery plans are reviewed and updated annually.</p> <p>Field Operations Plans (FOPs) for the various activities associated with disaster response and recovery need to be developed, implemented and are reviewed and</p>		

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		<p>updated annually and after each significant event and/or disaster.</p> <p>Multi-agency responses need to be constantly managed in accordance with national regulations and directives and the relevant provincial disaster risk management policy framework, and are reviewed and updated annually.</p> <p>Policy and directives for the management of disaster response and recovery operations need to be developed and</p>		

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		gazetted or published and need to be adhered to.		
IMPERATIVE 4.4 Develop and adopt mechanisms for the management and distribution of disaster relief in accordance with national regulations and directives and the provincial DMF	Disaster Management Centre, Housing	Disaster relief measures are managed in accordance with national regulations and directives and are progressively monitored and reviewed annually. Recommendations are made to the municipal disaster risk management centre, the NDMC and/or the provincial disaster risk management centre concerned, on any adjustments according to lessons learnt.	Constant	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
<p>IMPERATIVE</p> <p>4.5 Develop and implement mechanisms to ensure that integrated rehabilitation and reconstruction activities are conducted in a developmental manner</p>	<p>Disaster Management Centre, Infrastructure & Development, Housing & Land</p>	<p>Post-disaster technical task teams for rehabilitation and reconstruction projects need to be established and operate effectively.</p> <p>Mechanisms for the monitoring of rehabilitation and reconstruction projects have been established and regular progress reports are submitted to the municipal disaster risk management centre, the NDMC and the provincial disaster risk management centre</p>	<p>Constant</p>	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
		concerned.		
Enabler 1: Mechanisms have been identified and developed to ensure that all relevant data in respect of the information management system is gathered and captured simultaneously in the process of developing and implementing disaster risk management plans and risk reduction	Disaster Management Centre	A Disaster Management Information System and communication need to be procured and is being used and updated.	Package Business Plan for funding by 30 June 2015	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
programmes				
<p>Enabler 2: Education, training, public awareness and research (knowledge management) needs in respect of disaster risk reduction planning and implementation have been analysed, and appropriate mechanisms have been identified and implemented to address the relevant needs</p>	Disaster Management Centre	<p>Education, training, public awareness and research (knowledge management) needs in respect of response and recovery planning and operations have been analysed and appropriate mechanisms need to be identified and implemented to address the relevant needs.</p>	Constant	
<p>Enabler 3: A business plan and a budget for the</p>	Disaster Management Centre, all	A business plan and a budget for the development and	Package Business Plan for funding by	

MAIN KEY PERFORMANCE AREAS AND INDICATORS	RESPONSIBLE DEPARTMENT / INSTITUTION	CURRENT STATUS AND OUTSTANDING ACTIONS	TARGET DATE FOR COMPLETION OF OUTSTANDING ACTIONS	POSSIBLE BUDGET
development and implementation of disaster risk management plans and risk reduction programmes have been prepared, submitted and approved for the current and ensuing financial year	municipal departments and Municipal Entities	implementation of response and recovery operational plans is prepared, submitted and approved for the current and ensuing financial year.	30 June 2015	

APPENDIX B: AN EXAMPLE OF A FORMAT FOR REPORTING TO THE DMC ON DISASTERS AND MAJOR INCIDENTS

**ZULULAND DISTRICT MUNICIPALITY
SUMMARY DISASTER OR MAJOR INCIDENT REPORT**

TO THE ZULULAND DISTRICT MUNICIPALITY DISASTER MANAGEMENT CENTRE

DATE (AND TIME) OF INCIDENT: _____

NAME AND CONTACT NUMBER OF PERSON COMPLETING THIS REPORT: _____

WARD / AREA WHERE THE INCIDENT TOOK PLACE: _____

OTHER WARDS, MUNICIPALITIES AFFECTED: _____

HAZARD: _____

INCIDENT DESCRIPTION: _____

TYPE OF HAZMAT INVOLVED AND POSSIBLE IMPLICATIONS: _____

SUMMARY EFFECTS OF INCIDENT:

SPECIFIC LOCATION OF THE INCIDENT	NUMBER OF PEOPLE AFFECTED	NUMBER OF FATALITIES	NUMBER OF DISPLACED PEOPLE	NUMBER OF PROPERTIES AFFECTED AND NATURE OF DAMAGE	RESOURCES ALLOCATED	STAKEHOLDERS INVOLVED / ASSISTING

APPENDIX C: SCHEDULE OF ZDM ALIGNMENT MEETING
--

Zululand												
Advisory Forum		21			21		23				19	
Practitioners		14			9		9				5	