

PROVINCE OF WESTERN CAPE



PROVINSIE WES-KAAP

# Provincial Gazette Extraordinary

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## CONTENTS

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No.

Page

### Provincial Notice

#### THE WESTERN CAPE DISASTER MANAGEMENT FRAME- WORK: DISASTER MANAGEMENT ACT, 2002 (ACT NO. 57 OF 2002)

- |     |  |   |
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| 210 | The Disaster Management Act and the National Disaster Management Framework call upon the Province of the Western Cape to establish and implement a framework for disaster management. The draft Provincial Disaster Management Framework is hereby published in terms of section 28 (3)(b) of the Disaster Management Act, 2002 (Act No. 57 of 2002) ..... | 2 |
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Interested persons and institutions may submit written representations or comments on the draft Framework by no later than **14 September 2007**.

- (a) by posting it to:  
The Director  
Disaster Management and Fire Brigade Services  
Private Bag X3  
SANLAMHOF

OR

- (b) by facsimile:  
(021) 931 9031

OR

- (c) by emailing it to  
[Jrikhot@pgwc.gov.za](mailto:Jrikhot@pgwc.gov.za)  
[lnichols@pgwc.gov.za](mailto:lnichols@pgwc.gov.za)

Enquiries:  
Mr J Rikhotso  
Tel: (021) 937 0809

**PROVINCIAL NOTICE**

The following Provincial Notice is published for general information.

V. L. PETERSEN (Ms),  
ACTING DIRECTOR-GENERAL

Provincial Building,  
Wale Street,  
Cape Town.

**PROVINSIALE KENNISGEWING**

Die volgende Provinsiale Kennisgewing word vir algemene inligting gepubliseer.

V. L. PETERSEN (Me),  
WAARNEMENDE DIREKTEUR-GENERAAL

Provinsiale-gebou,  
Waalstraat,  
Kaapstad.

P.N. 210/2007

7 August 2007

**DRAFT FOR DISCUSSION AND STAKEHOLDER CONSULTATION**  
**WESTERN CAPE DISASTER MANAGEMENT FRAMEWORK — MARCH 2007**

**Table of Contents**

*Section*

List of Abbreviations and acronyms

**Introduction: A guiding framework for disaster risk management in the Western Cape Province**

**Key Performance Area 1: Institutional Capacity for Disaster Management**

- 1.1 Arrangements for integrated policy
- 1.2 Integration direction and execution of policy
- 1.3 Arrangements for stakeholder participation, technical advice and planning
- 1.4 Arrangements for local, regional, national and international cooperation

**Key Performance Area 2: Disaster Risk Assessment**

- 2.1 Disaster risk assessment
- 2.2 Maintaining and improving the Indicative Disaster Risk Profile of the Western Cape
- 2.3 Monitoring, evaluating and improving disaster risk information
- 2.4 Ensuring quality control
- 2.5 Guidelines to be developed and disseminated

**Key Performance Area 3: Disaster Risk Reduction**

- 3.1 Disaster risk management planning
- 3.2 Setting priorities for disaster risk management planning
- 3.3 Scoping and development of disaster risk reduction plans, projects and programmes
- 3.4 Inclusion of disaster risk reduction efforts in strategic structures and processes
- 3.5 Implementation of disaster risk reduction programmes
- 3.6 Guidelines to be developed and disseminated

**Key Performance Area 4: Disaster Response and Recovery**

- 4.1 Early warnings
- 4.2 Disaster assessment, disaster classification, declaration of states of disaster, reviews and reporting
- 4.3 Integrated response and recovery
- 4.4 Relief measures
- 4.5 Rehabilitation and reconstruction

**Enabler 1: Information Management and Communication**

- 5.1 Integrated information management and communications model

- 5.2 Establishing a disaster management and communications capability
- 5.3 Disaster risk management institutional support and resource database
- 5.4 Disaster management information management system
- 5.5 Provincial communications centre
- 5.6 Public awareness and education support capability
- 5.7 Critical information and communication support requirements

#### **Enabler 2: Disaster Risk Management Education, Training, Research and Public Awareness**

- 6.1 Aligning provincial efforts in DRM education, training and research with the NDMF
- 6.2 Aligning provincial efforts in DRM public awareness with the NDMF
- 6.3 Development of an integrated provincial DRM education, training, research and public awareness programme in the Province of the Western Cape
- 6.4 Establishment of a Western Cape DRM education, training and public awareness support services

#### **Enabler 3: Funding Arrangements**

- 7.1 Legislative framework for funding arrangements
- 7.2 Policy principles underpinning funding arrangements
- 7.3 Funding arrangements
- 7.4 Phasing in funding arrangements
- 7.5 Guidelines and regulations to be disseminated

### **LIST OF ACRONYMS AND ABBREVIATIONS**

CBO	community-based organisation
DIMF	disaster information management facility
DiMP	Disaster Mitigation for Sustainable Livelihoods Programme
DMDMC	district municipal disaster management centre
DMISA	Disaster Management Institute of Southern Africa
DOF	disaster operations facility
DRM	Disaster Risk Management
DMIMS	Disaster Management Information Management System
DWAF	Department of Water Affairs and Forestry
E&DMC	emergency and disaster management centre
ECF	emergency communications facility
ETQA	Education and Training Quality Assurer GIS geographical information systems
HoC	Head of Centre
IDP	integrated development planning
KPA	key performance area
KPI	key performance indicator
LGDMCG	Local Government Disaster Management Conditional Grant
LGWSETA	Local Government and Water and Related Sector Education Training Authority
MDMAF	municipal disaster management advisory forum
MDMC	municipal disaster management centre
MFMA	Municipal Finance Management Act
MIG	Municipal Infrastructure Grant
MIS	Management information systems
MTEF	Medium-Term Expenditure Framework
NDMC	National Disaster Management Centre
NDMF	National Disaster Management Framework
NGO	non-governmental organisation
NQF	National Qualifications Framework
PDMC	provincial disaster management centre
PDMSC	Provincial Disaster Management Steering Committee
PDMCG	Provincial Disaster Management Conditional Grant
PRA	Participatory rural appraisal
SALGA	South African Local Government Association
SAQA	South African Qualifications Authority
SDF	Spatial Development Framework
SEA	strategic environmental assessments
SETA	Sector Education and Training Authority
SGB	Standards Generating Body
WCDLGH	Western Cape Department of Local Government and Housing
WCDMAF	Western Cape Disaster Management Advisory Forum

WCDMC	Western Cape Disaster Management Centre
WCICDM	Western Cape Intergovernmental Committee on Disaster Management
WCPT	Western Cape Provincial Treasury

### **Introduction: A guiding framework for disaster management in the Western Cape Province**

#### **The context for disaster management in the Western Cape**

##### **Changing patterns of provincial disaster risk**

The Province of the Western Cape remains one of the most disaster-prone provinces in South Africa. Its diversity of ecosystems includes coastal habitats, semi-arid/arid inland areas, mountain ranges and densely populated urban settlements. In addition, fast-growing metropolitan areas such as Cape Town concentrate a wide range of essential commercial and government services, along with a multitude of industrial and manufacturing activities. Particularly rapid growth in urban areas has been reflected in the expansion of informal settlements in under-served and often environmentally fragile areas, at the same time as formal development has pushed the urban fringe into fire-dependent ecological zones.

These changes are reflected in patterns of disaster occurrence that include both low-frequency high-impact events as well as an increasing frequency of low-impact occurrences — often in rapidly growing urban areas. Many of the Province's formally 'declared disasters' are triggered by extreme weather, and are characterised by large-scale informal settlement, veld and urban fringe fires, severe wind and rain storms, flash-floods and drought — events that occur along our coast, within the Cape Town Metropole and in remote areas inland. These relatively rare events classified as disasters are exceeded by many 'unclassified significant events' that are managed locally. The Province's past 'declared' events are even more dramatically outnumbered by the thousands of small and medium-size disaster events that exact cumulative losses on households and local authorities every year. Significantly, increased urban growth in both the Cape Town Metropole and district municipalities is associated with rising disaster-related losses. The severity of the impacts is less related to the triggering weather or other hazard process, but more associated with the growing concentration of people, services and infrastructure in urban areas, as well as sweeping and often irreversible changes in land-use. It is also significantly increased by the socio-economic, infrastructural and environmental vulnerabilities of the affected settlements and communities.

The combination of lower-frequency 'high-magnitude' disaster events, such as riverine flooding, and higher-frequency 'low-impact' events, such as informal settlement fires, illustrates the disaster vulnerability of the Province of the Western Cape, along with its potential to undermine development. Moreover, this suite of small-, medium- and large-scale disaster events significantly constrains opportunities for social and economic development in the province's most marginal rural and urban communities. It also places at risk efforts to conserve the province's indigenous fauna and flora, as well as initiatives seeking to expand tourism.

The likelihood of rising temperatures and increasing weather extremes expected worldwide, will be mirrored in the Province of the Western Cape, which is already exposed to strong winds, rainfall extremes, rising temperatures and coastal storm surges.

#### **The legal context for provincial disaster management**

These provincial disaster risk trends parallel those that have generally occurred across South Africa during the past decade, underlining the urgency to reform prevailing disaster management legislation. Recognition of the need for legislative reform was reflected in an extensive stakeholder consultative process undertaken between 1997 and 2002, including the generation of Green and White Papers in Disaster Management, which resulted in the promulgation of the Disaster Management Act, No. 57 of 2002, on 15 January 2003.

The Disaster Management Act provides for:

- an integrated and coordinated disaster management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters, and post-disaster recovery
- the establishment of national, provincial and municipal disaster management centres
- disaster management volunteers
- matters relating to these issues.

The Act recognises the wide-ranging opportunities in South Africa to avoid and reduce disaster losses through the concerted energies and efforts of all spheres of government, civil society and the private sector. However, it also acknowledges the need for uniformity in the approach taken by such a diversity of role players and partners. To ensure this consistency across multiple interest groups, the Disaster Management Act called for the development of a national disaster management framework, 'to provide a coherent, transparent and inclusive policy on disaster management appropriate for the Republic as a whole' (section 7(1)).

The National Disaster Management Framework (NDMF) was gazetted on 29 April 2005. It elaborated four key performance areas and three enablers to guide a coherent and uniform approach to disaster risk management in South Africa and to direct disaster risk management efforts in all spheres of government.

The four key performance areas specified in the national framework are:

- Integrated institutional capacity for disaster risk management
- Disaster risk assessment
- Disaster risk reduction
- Response and recovery

The three enablers specified in the national framework are:

- Enabler 1: Information management and communications public awareness, education, training and research
- Enabler 2: Education, training, public awareness and research
- Enabler 3: Funding arrangements for disaster risk management

The NDMF assigns priority to a wide diversity of risks and disasters that are relevant to southern Africa, as well as developmental measures that reduce the vulnerability of disaster-prone areas, communities and households. Also, in keeping with international best practice, the NDMF places explicit

emphasis on the disaster risk reduction concepts of disaster prevention and mitigation as the core principles to guide disaster risk management in South Africa.

To facilitate consistency in the implementation of disaster management across and within all spheres of government, the Disaster Management Act also calls for the development of provincial and municipal disaster management frameworks that are consistent with both the Act and the NDMF (sections 28(1), (2), 42(1), (2), (3)).

In this regard, both the Disaster Management Act and the NDMF call upon the Province of the Western Cape to establish and implement a framework for disaster management. This is to ensure an integrated and uniform approach to disaster risk management by all provincial organs of state, as well as other key role players in the province (section 28(1), (2)).

### **The development context for disaster management in the Western Cape**

The Disaster Management Act's emphasis on the vulnerability reduction of disaster-prone areas, communities and households is fully consistent with *iKapa elihlumayo* — *The Growing Cape*,<sup>1</sup> the official framework for the development of the Province of the Western Cape. **iKapa elihlumayo** gives explicit priority to building social capital, building human capital and enhancing economic participation and growth to achieve benefits across communities and sectors within the Province of the Western Cape.

**iKapa elihlumayo** also calls for closer integration and alignment of the initiatives of provincial departments to avoid duplication and to ensure that individual departments add value to one another's efforts. This call for greater transversal integration is also consistent with requirements stated in the Disaster Management Act (sections 33(1), 38(2), 39(2)(a)) and the NDMF (subsections 1.2.3, 3.4.1, 3.4.2) that give priority to the integration of disaster management activities into the core business of government departments as well as into spatial and integrated development plans (IDPs).

The Western Cape Disaster Management Framework seeks to add value to *iKapa elihlumayo* through its emphasis on vulnerability reduction in disaster-prone areas, communities and households, together with its focus on integrating disaster prevention and mitigation (risk reduction) efforts into ongoing development initiatives.

### **Structure of the document presenting the Western Cape Disaster Management Framework**

As called for by the Disaster Management Act, the Western Cape Disaster Management Framework is consistent with requirements specified in the NDMF.

The Western Cape Disaster Management Framework comprises four key performance areas (KPAs). It also contains three supportive enablers required to achieve the objectives set out in the KPAs. The KPAs and enablers are informed by specific objectives and, as required by the Act, key performance indicators (KPIs) to guide and monitor progress.

Key performance area 1 focuses on establishing the necessary institutional arrangements for implementing disaster risk management within the Province of the Western Cape. It specifically addresses the application of the principle of co-operative governance for the purpose of disaster risk management. It also emphasises the involvement of all stakeholders in strengthening the capabilities of provincial and municipal organs of state to reduce the likelihood and severity of disasters.

Key performance area 2 addresses the need for disaster risk assessment and monitoring to set priorities, guide risk reduction action and monitor the effectiveness of our efforts. Although the Province of the Western Cape faces many different types of risk, disaster risk specifically refers to the likelihood of harm or loss due to the action of hazards or other external threats on vulnerable structures, services, areas, communities and households. KPA 2 outlines the requirements for implementing disaster risk assessment and monitoring by organs of state within provincial and municipal spheres of government.

Key performance area 3 introduces disaster risk management planning and implementation to inform developmentally-oriented approaches, plans, programmes and projects that reduce disaster risks. KPA 3 addresses requirements for the alignment of disaster management frameworks and planning within all spheres of government. It also gives particular attention to the planning for and integration of the core risk reduction principles of prevention and mitigation into ongoing programmes and initiatives.

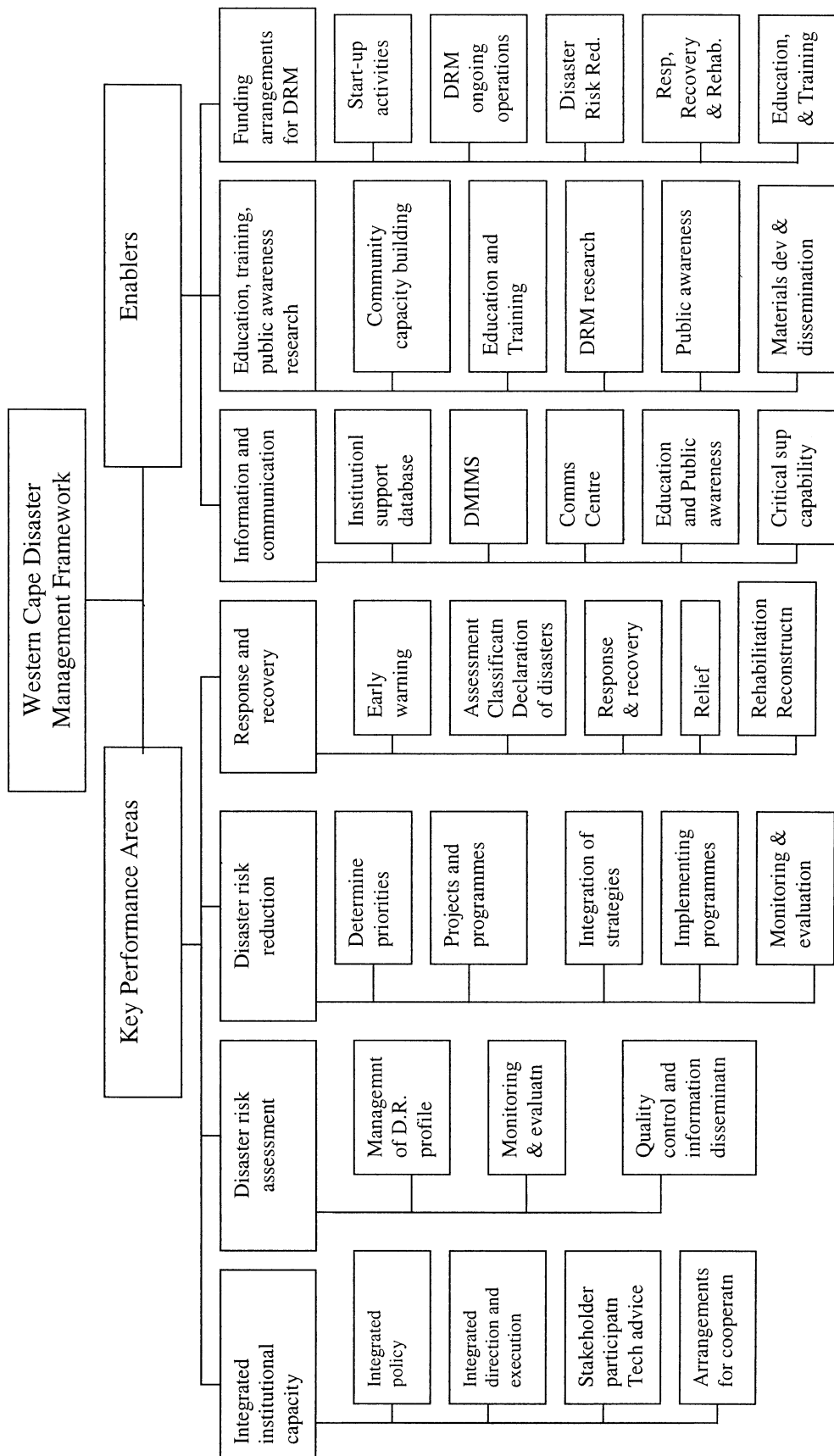
Key performance area 4 presents implementing priorities concerned with disaster response and recovery and rehabilitation in the Province of the Western Cape. KPA 4 addresses requirements in the Act for an integrated and co-ordinated policy that focuses on rapid and effective response to disasters and post-disaster recovery. When a significant event or disaster occurs or is threatening to occur, it is imperative that there must be no confusion as to roles and responsibilities and the necessary procedures to be followed. KPA 4 describes measures to ensure effective disaster response, recovery and rehabilitation planning.

Enabler 1 focuses on priorities related to the establishment of an integrated and comprehensive information management and communication system for disaster risk management. More specifically, it addresses the information and communication requirements of each KPA and Enablers 2 and 3 and emphasises the need to establish integrated communication links with all disaster risk management role players in provincial and municipal spheres of government.

Enabler 2 addresses disaster risk management priorities in education, training, public awareness and research. This enabler describes mechanisms for the development of education and training programmes for disaster risk management and associated professions and the incorporation of relevant aspects of disaster risk management in primary and secondary school curricula. It addresses requirements to promote and support a broad-based culture of risk avoidance through strengthened public awareness and responsibility. It also discusses priorities and mechanisms for supporting and developing a coherent and collaborative disaster risk research agenda.

Enabler 3 sets out the mechanisms for the funding of disaster risk management in the Province of the Western Cape.

1. Department of Provincial Administration: Western Cape. Chief Directorate: Policy and Strategic Management. 2004. *A Framework for the Development of the Western Cape Province: An improved life for all*. Cape Town.



## Key performance area 1: Institutional capacity for disaster management

### 1.1 Arrangements for integrated policy

#### 1.1.1 Objectives

- To establish effective mechanisms for the development, approval and implementation of integrated disaster management policy for the Western Cape province.
- To establish effective mechanisms for making recommendations on national disaster management policy.

Figure 1.1 below provides an overview of the key components of KPA 1.

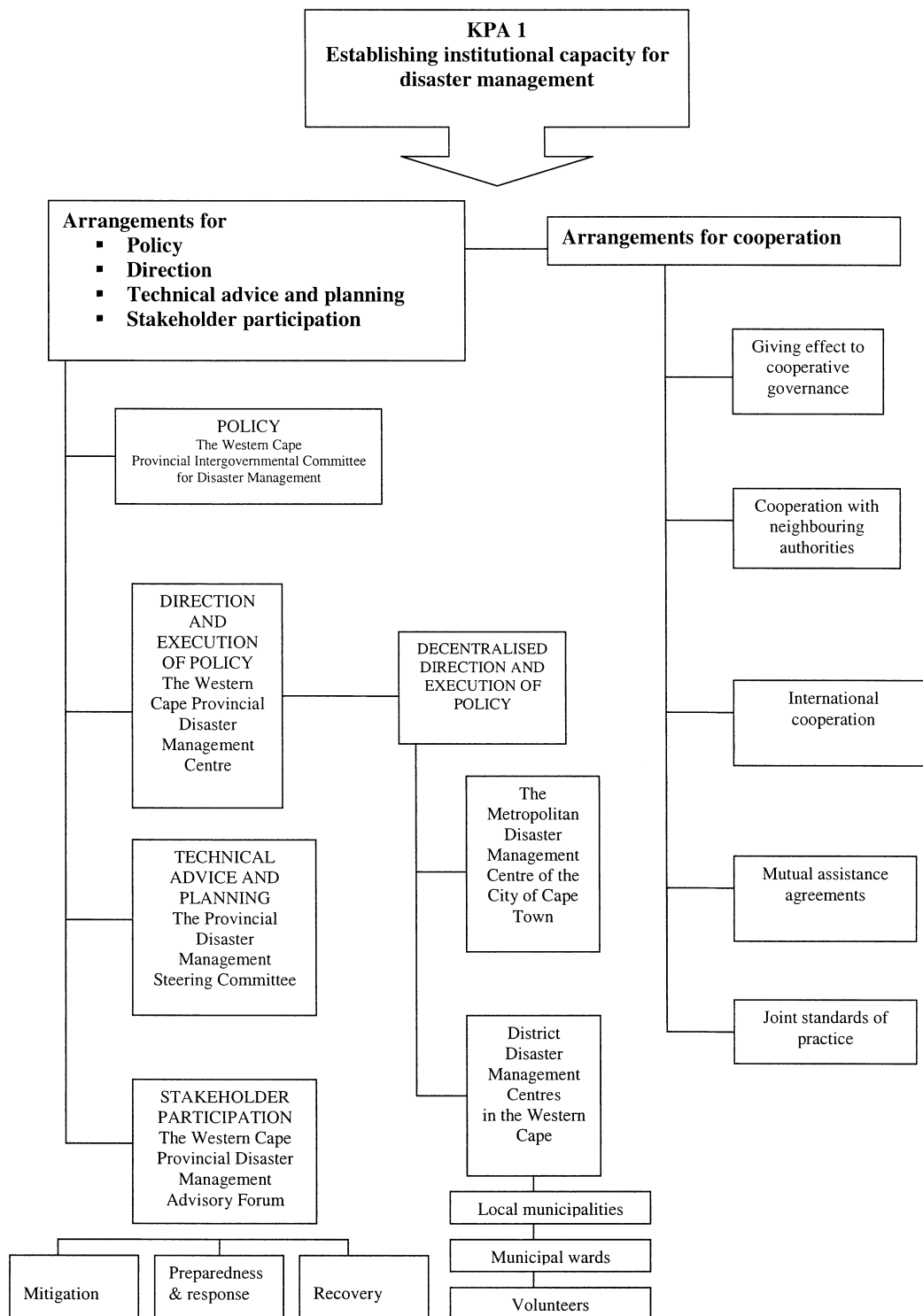


Figure 1.1: Key performance area 1: Institutional capacity for disaster management



## **Figure 1.1: Key performance area 1: Institutional capacity for disaster management**

### **1.1.2 Administration of the Disaster Management Act**

The Disaster Management Act is administered in the province by a Member of the Western Cape Provincial Cabinet designated by the Premier.

### **1.1.3 The Western Cape Provincial Intergovernmental Committee on Disaster Management**

In order to ensure that the province adopts an integrated approach in the implementation of its constitutional and legislative responsibilities in respect of disaster risk management, the Premier must establish a provincial intergovernmental committee on disaster management. The establishment of the committee will not only ensure that the Province's approach to disaster management is consistent with the national policy framework but will also serve to demonstrate the provincial government's commitment (political will) to placing proportionate priority on developmental initiatives for disaster risk reduction and the building of a resilient people in the Province of the Western Cape.

The committee must consist of Cabinet members who are involved in disaster risk management, or Cabinet members who are involved in administering other national and provincial legislation aimed at dealing with occurrences that can be defined as a disaster in terms of section 1 of the Disaster Management Act. The committee must be chaired by the Minister designated by the Premier to administer the Act.

- The WCICDM must include the relevant Members of the Provincial Cabinet to ensure all provincial portfolios are represented.

The local government sphere is represented on the WCICDM by:

- the Municipal Councillor designated by the City of Cape Town
- the Municipal Councillor designated by the Councils of each of the five district municipalities in the Western Cape and
- no more than six members of local municipal councils selected by SALGA

The WCICDM is accountable to the Western Cape Provincial Cabinet for:

- ensuring that appropriate mechanisms and institutional capacity are in place to give effect to its constitutional responsibilities in terms of Part A Section 4 of the Constitution (Constitution of the Republic of South Africa, Act No. 108 of 1996)
- ensuring that in the administration of the Disaster Management Act the province gives effect to the principles of cooperative governance in terms of Chapter 3 of the Constitution
- advising and making recommendations to the Western Cape Provincial Cabinet on issues relating to disaster risk management and the establishment of a disaster management framework for the province
- ensuring that the provincial disaster management framework makes provision for an integrated and uniform approach to disaster management in the province by all provincial and municipal organs of state, statutory functionaries, non-governmental organisations (NGOs) involved in disaster risk management, the private sector and individuals
- the coordination of disaster management in the province by ensuring the application of joint standards of practice by organs of state and the statutory functionaries of organs of state in the provincial and local spheres of government in the Western Cape.

The WCICDM must meet at least four times a year. Circumstances prevailing at the time will determine whether the Minister:

- convenes a full meeting of the committee
- convenes a meeting of only those members directly involved with the business at hand
- co-opts additional members to the committee relevant to the business at hand
- refers the matter to the relevant provincial cluster committee/s.

### **1.1.4 The policy-making process**

All recommendations on issues relating to disaster risk management policy must be submitted to the Western Cape Disaster Management Centre (WCDMC) for consideration. In order to allow recommendations to be properly considered the WCDMC must ensure that recommendations include details of any financial, constitutional, human resource and interdepartmental implications prior to the further processing of the recommendations. (See section 1.2.4 on the Western Cape Disaster Management Centre.)

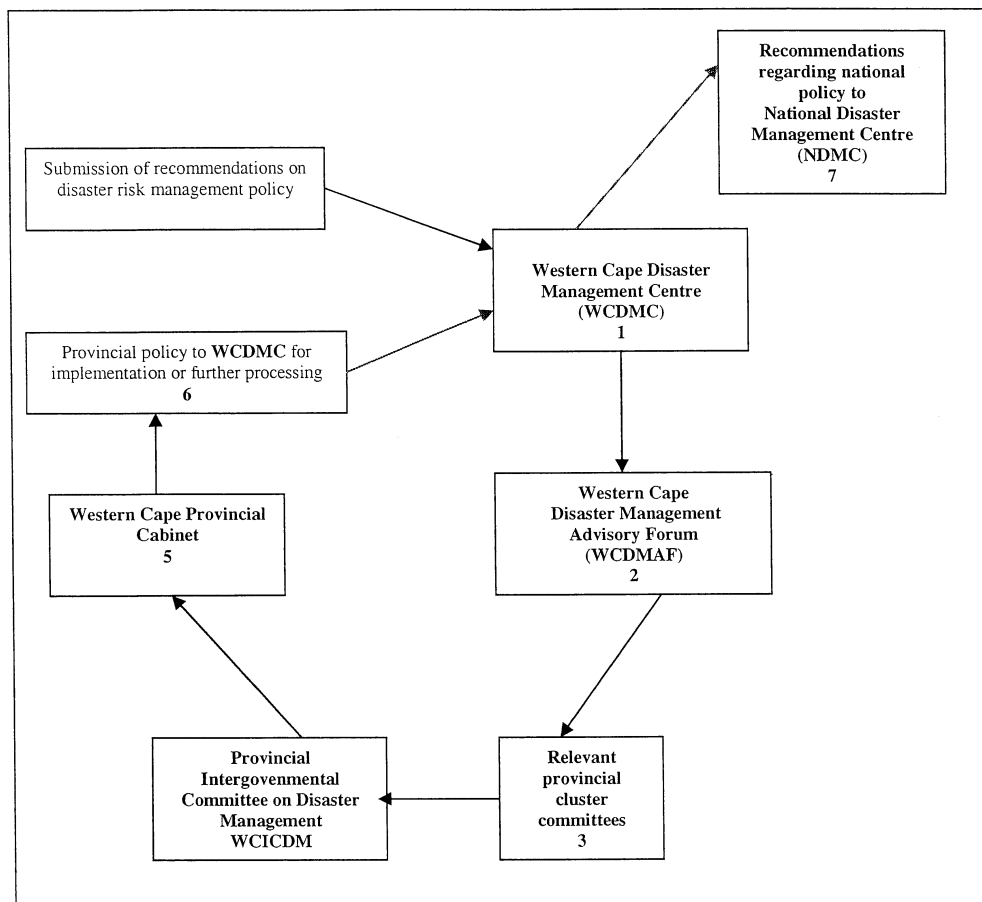
Once the recommendations have been properly formulated, the WCDMC must then submit them to the Western Cape Disaster Management Advisory Forum (WCDMAF) for consideration and for technical input before submission to the WCICDM (see section 1.3.2 on the WCDMAF). However, due to the multisectoral nature of disaster risk management, the WCDMC must submit all memoranda containing policy proposals to the relevant Cabinet and cluster committees for assessment and recommendations before they are submitted to the WCICDM.

Recommendations in respect of the provincial disaster management framework will be submitted to the Western Cape Provincial Cabinet. Those recommendations concerning the National Disaster Management Framework (NDMF) will then be directed by the WCDMC to the National Disaster Management Centre (NDMC) for further processing.

### **1.1.5 Key performance indicators**

- The WCICDM has been established and meets at least quarterly.
- Appropriate mechanisms and institutional capacity is in place for the execution of the province's constitutional responsibilities in respect of disaster risk management.
- The WCDMC provides secretarial services and maintains accurate records of the WCICDM meetings.
- The WCDMC ensures that policy matters are processed in accordance with the policy-making process.





**Figure 1.2: Provincial disaster management policy-making process**

## 1.2 Integrated direction and execution of policy

### 1.2.1 Objectives

- To establish institutional arrangements that will promote an integrated and coordinated approach to disaster risk management in the province.
- To establish mechanisms that will provide clear direction for the effective execution of disaster risk management policy.
- To make provision for adequate operational capacity for the administration of the Disaster Management Act.

### 1.2.2 Establishment of a Disaster management centre for the Province of the Western Cape

In terms of section 29 of the Disaster Management Act a disaster management centre must be established for the Province of the Western Cape.

The Minister designated by the Premier to administer the Disaster Management Act must establish institutional capacity for disaster risk management in the province which is consistent with national arrangements.

### 1.2.3 Location of the disaster management centre within the administration of the Western Cape Province

In accordance with section 29(2) of the Disaster Management Act, the Western Cape Disaster Management Centre (WCDMC) must form part of and function within the department that falls within the remit of the Member of the Executive Council (MEC) designated as responsible for disaster management by the Premier in the administration of the Provincial Government of the Western Cape.

Given the multisectoral and multidisciplinary spread of disaster risk management activities it is essential that the centre is located in a position that allows it to maintain a provincial overview and to function in an environment unhampered by a sectoral bias.

The Act calls for an integrated, coordinated and uniform approach to disaster management. Integration and coordination in both planning and implementation of disaster risk reduction actions, as well as for prompt and efficient response and recovery operations, cuts both horizontally across sectors and vertically within disciplines in the various sectors. It also requires collateral support and the participation of NGOs, community-based organisations (CBOs), individuals and the private sector.

If the WCDMC is to achieve its objectives of giving effect to the Disaster Management Act, the NDMF and the provincial disaster risk management framework and if it is to fulfill its responsibilities in terms of integration, coordination and the application of joint standards of practice among role players and stakeholders, then it must have the necessary authority and political backing (support) to do so.

The Disaster Management Act gives provincial disaster management centres the necessary legislative authority to compel organs of state and other role players to provide information necessary for the execution of their powers and the performance of their duties. Exercising this authority would create major difficulties from within a provincial or municipal line function department, particularly if this authority has to be exercised over a functionary in a supervisory or higher position in that or any other department.

Clearly, it is in this context that the White Paper on Disaster Management states that the national centre must be **directly** accountable to the Minister.

In this regard the NDMF calls for an investigation into the establishment of a South African disaster risk management authority or similar entity. However, until such time as this can be achieved, it recommends that disaster management centres be located close to the highest levels of decision making in the various spheres.

The Head of the WCDMC will, in accordance with section 31(3) of the Act take all policy directions from the Minister, will act in accordance with the administrative instructions of the head of the department in which it is located and subject to the Public Finance Management Act, 1999.

Similarly, in the case of municipalities the municipal disaster management centre will directly take all directions from the Council, will be accountable to the office of the Executive Mayor and will be required to act in accordance with the administrative instructions of the municipal manager.

#### 1.2.4 The Western Cape Disaster Management Centre

The WCDMC has primary responsibility for the effective implementation of the policy and legislative requirements for disaster risk management in the Western Cape.

The WCDMC serves in an advisory capacity to the WCICDM and provides secretarial support for the WCICDM and other provincial forums (Provincial Disaster Management Steering Committee and WCDMAF) established for the purposes of the administration of the Act.

Essentially its purpose is to provide support to the NDMC and to support and facilitate the integration and coordination of all the activities associated with disasters and disaster risk management among the role players and stakeholders in the provincial sphere and between the metropolitan and district municipalities within the province. It provides the link between the national disaster risk management objectives and operational activities of the municipalities in the province. It functions in an advisory capacity and plays a critical role in facilitating the development of an indicative risk profile for the province and in identifying provincial priorities for disaster risk reduction. It facilitates the identification of cross-boundary disaster risks within the province and monitors the development and implementation of strategies, programmes and projects to manage such risks. It must serve as a central reporting centre and must develop the capabilities to monitor and track significant events as well as recurring incidents which could serve as early warnings. It has primary responsibility to develop and ensure the implementation of public awareness programmes and to establish effective mechanisms for the receipt and dissemination of early warnings.

When a disaster occurs or is threatening to occur in the province the centre must provide support and guidance to the municipal disaster management centre or centres affected and must mobilise provincial infrastructure and resources to support municipal efforts.

If existing legislation and contingency arrangements do not adequately enable an affected municipality or municipalities to deal effectively with the disaster, or if other special circumstances warrant it, the municipality with primary responsibility for the disaster may recommend the declaration of a local state of disaster. The WCDMC must immediately ensure the fast-tracking of the procedures for the proclamation of a local state of disaster in the provincial gazette.

When an occurrence is of such magnitude that it overwhelms or exceeds the capacity of a district municipality and the local municipalities in its area to cope, or when an occurrence which falls within the definition of a disaster affects more than one district municipality in the province, or if an occurrence affects the City of Cape Town and one or more district municipalities in the province, then the WCDMC must classify it as a provincial disaster. The WCDMC is primarily responsible for the coordination and management of a provincial disaster.

The WCDMC must exercise its powers and perform its duties:

- in accordance with the NDMF and the Western Cape Disaster Management Framework
- subject to the policy directions of the Minister responsible for disaster risk management in the province acting within the NDMF and the Western Cape Disaster Management Framework
- in accordance with the administrative instructions of the head of the provincial department in which it is located
- subject to the Public Finance Management Act, No. 1 of 1999.

##### 1.2.4.1 Key outputs of the Western Cape Disaster Management Centre

The WCDMC is required to:

- establish and maintain adequate institutional arrangements for the administration and implementation of the provisions of the Disaster Management Act, including the recruitment, training and participation of volunteers in disaster risk management
- commission the development of current and relevant disaster risk profiles for the province for the identification of priorities to:
  - inform the development of risk reduction plans and strategies
  - guide contingency planning
- submit the disaster risk assessment
- prepare a disaster risk management plan for the province as a whole which will include strategies, programmes and projects aimed at risk reduction and emergency preparedness and which will form an integral part of the IDP, as well as the preparation of operational plans for the coordination of response and recovery efforts in the event of a provincial disaster
- submit copies of disaster risk management plans to the NDMC and to neighbouring PDMCs
- mobilise provincial infrastructure and resources to support municipal disaster management centres in the event of a local disaster or local state of disaster
- institute joint standards of practice for disaster risk management in the province that are consistent with national standards
- establish mechanisms to facilitate and monitor progress with the development, integration and implementation of priority risk reduction strategies, programmes and projects by provincial organs of state for risks affecting the province as a whole as well as to establish mechanisms to facilitate planning for the integrated management of cross-boundary risks
- facilitate and monitor progress with the development of integrated response and recovery plans of provincial organs of state

- develop the capacity to provide a consultative and advisory service on disasters and disaster risk management
- establish and maintain a comprehensive communication and information management system for the province
- facilitate and monitor progress with the development of municipal disaster risk management plans and their integration into the IDP
- facilitate the development of public awareness programmes for the province as a whole to promote risk-avoidance behaviour and to ensure an alert and informed public
- facilitate the introduction of disaster risk management education into school curricula
- make provision for disaster risk management training, education and research
- make recommendations regarding funding for disaster risk management in the province
- initiate and facilitate mechanisms for making funding available for the purposes of disaster risk management
- establish mechanisms for effective reporting, monitoring, evaluation and improvement, including simulations, exercises, drills and rehearsals.

#### **1.2.4.2 Direction and operational capacity of the WCDMC**

##### ***Appointment of the Head of the Centre***

In accordance with the Disaster Management Act, the Head of the Centre (HoC) must be appointed by the Minister responsible for the administration of the Act. The HoC will hold office on terms and conditions set out in a written employment contract which must include terms and conditions setting out performance indicators. The HoC is responsible for the exercise of the powers and the performance of the functions of the provincial disaster management centre and takes all the decisions of the centre.

##### ***Delegation or assignment of powers and duties of the Head of the Centre***

In the event that the HoC is absent or otherwise unable to perform the functions of office, or during a vacancy in the office of the HoC, the head of the department in which the WCDMC is located may designate another person in the service of or seconded to the department to act as the HoC.

##### ***Responsibilities of the Head of the Centre***

The performance of the functions of the HoC requires an individual who not only has a well developed understanding of disaster risk management issues in South Africa but who is informed about current global trends in disaster risk management and risk reduction. The position requires sound managerial and financial acumen as well as the mental qualities and ability to immediately assess and understand situations, anticipate consequences and make sound decisions. Due to the nature of the function the person will at times inevitably be forced to make critical 'on-the-spot' decisions which could have far-reaching implications. Thus discernment, good judgement and problem-solving abilities are essential criteria for the job.

Undoubtedly disaster risk management is 'everybody's business' and as a result the incumbent will be required to consult, liaise, communicate and network regionally, nationally and internationally with a wide range of role players and stakeholders, including politicians and functionaries, across sectors and disciplines in all spheres of government, the private sector, communities and NGOs. This necessitates diplomacy and excellent communication skills.

Accordingly, the qualifications and experience of the person appointed as the HoC must be commensurate with the requirements of the post.

##### ***Staffing of the provincial disaster management centre***

Suitably qualified disaster risk management and other technical staff, including skilled personnel in disaster mitigation, preparedness, response and recovery as well as risk scientists, risk reduction specialists, planners, information management and communication specialists, and administrative staff, must be appointed to support the HoC and perform the duties to achieve the provincial disaster risk management objective.

##### ***Minimum infrastructural requirements***

The infrastructure for the WCDMC, which must be in accordance with the minimum standard laid down in the national guideline, will include the following:

- *Primary components of a disaster management centre*  
The primary components of a centre comprise the following:
  - disaster operations facility (DOF)
  - disaster information management facility (DIMF)
  - emergency communications facility
  - media and public information facility
  - training facility
  - office accommodation.
- *General requirements*  
The general requirements are:
  - adequate facilities to exercise access control including security fencing
  - 
  - an independent power supply
  - sufficient water supply for five consecutive working days.

#### **1.2.5 Roles and responsibilities of provincial organs of state**

Provincial organs of state must assess any national or provincial legislation applicable to their function and must advise the WCDMC on the state of such legislation in terms of section 2 of the Disaster Management Act.

Each provincial organ of state must identify its role and responsibilities in respect of disaster risk management in terms of the Disaster Management Act, and must assess its capacity to fulfill those responsibilities. Disaster risk management activities are an integral part of the routine responsibilities of the

key role players in the various sectors and the disciplines within those sectors as well as their substructures. Disaster risk management roles and responsibilities must be reflected in the job descriptions of the relevant positions together with key performance indicators.

#### 1.2.5.1 Departmental focal points for disaster risk management

Each provincial organ of state must designate an individual, (at least on Director level) who will serve as its representative on the WCDMAF and who will act as its focal point for disaster risk management.

The focal (or nodal) point will be responsible for:

- facilitating the relevant department's disaster risk management arrangements and planning for risk reduction and response and recovery
- ensuring consistency with the provincial and National Disaster Management Frameworks
- facilitating the alignment of the department's plans and arrangements with those of other organs of state and other institutional role players
- ensuring that the department's disaster risk management planning is integrated with the provincial integrated development planning process
- ensuring that the department's disaster risk management plans are regularly reviewed and updated
- ensuring that requests for information from the WCDMC are complied with in terms of section 32(2) of the Disaster Management Act.

These responsibilities must be reflected in the job description of the designated focal point together with key performance indicators.

#### 1.2.6 Arrangements to promote interdepartmental liaison and coordination for the purposes of integrated planning

The Disaster Management Act requires the provincial disaster management centre to promote a coordinated, integrated and uniform approach to disaster risk management and the development and implementation of appropriate disaster risk reduction methodologies, emergency preparedness and rapid and effective disaster response and recovery in the Province of the Western Cape. In order for these objectives to be achieved and to promote interdepartmental liaison, arrangements must be put in place for a forum in which all the key *internal* role players in provincial departments are able to participate and coordinate their disaster risk management responsibilities. This could best be achieved by the establishment of an interdepartmental committee for disaster risk management. Accordingly, the HoC must establish and sustain a Provincial Disaster Management Steering Committee (PDMSC). The PDMSC must facilitate 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 as required by section 38 of the Disaster Management Act. It must support the WCDMC and assist with supervising the preparation, coordination, monitoring and review of disaster plans and their integration into IDP processes.

The committee must be chaired by the HoC and should meet at least quarterly, but is not precluded from meeting more frequently according to prevailing circumstances.

The HoC, in consultation with key role players, must develop draft terms of reference for consideration and adoption by the committee.

##### 1.2.6.1 Composition of the Provincial Disaster Management Steering Committee

The PDMSC must comprise key personnel in the various provincial organs of state who have specific technical expertise and who are responsible for disaster risk management. Collectively, the committee must include the following essential technical expertise:

- disaster risk management
- integrated development planning
- environmental health
- emergency medical services
- primary health care (personal health)
- social services
- traffic services
- police services
- national defence services
- transport
- roads
- water and sanitation
- housing
- land-use planning
- agriculture
- environmental affairs
- nature conservation
- finance
- corporate services.

The composition of this committee does not preclude the co-option of additional personnel to the PDMSC according to prevailing circumstances nor does it preclude the ad hoc co-option of specialised expertise for specific purposes.

##### 1.2.6.2 Responsibilities of the Provincial Disaster Management Steering Committee

For the purposes of implementing the requirements of the Disaster Management Act (in particular sections 33, 34 and 38), the PDMSC's responsibilities will include:

- *For disaster risk reduction:*
  - monitoring, assessing, and coordinating departmental disaster risk management planning and implementation, placing particular focus on risk reduction policies, practices and strategies

- coordinating, monitoring progress and collaborating on joint projects and programmes and their integration into IDPs
  - annually reviewing the provincial disaster risk management framework and departmental disaster risk management plans to ensure that they are integrated, current and consistent with the NDMF
  - promoting joint standards of practice within and between departments and other entities within the province
  - monitoring progress on the implementation of priority provincial projects aimed at risk reduction
  - participating in desk-top exercises bi-annually to remain current with regard to roles and responsibilities in the activation and operation of the provincial Disaster Operations Centre and to ensure rapid and efficient response and recovery in the event of a provincial disaster occurring or threatening to occur
  - making recommendations to the WCDMC regarding disaster risk management policy and related disaster risk management matters.
- *For disaster response and recovery:*
    - on receipt of an activation alert from the HoC (or designate), immediately reporting to the Disaster Operations Centre when a disaster classified by the HoC as a provincial disaster occurs or is threatening to occur
    - conducting initial and specialist post-disaster assessments for the department's or entity's functional area
    - ensuring that departments respond rapidly to disasters
    - ensuring efficient and coordinated disaster response and recovery operations
    - monitoring progress with post-disaster reconstruction and rehabilitation projects
    - ensuring that regular reports on progress with disaster recovery are continuously submitted to the WCDMC
    - ensuring that all documentation and records relating to the disaster are retained and placed in safe keeping for the purposes of post-disaster investigation, inquiry or review.

### 1.2.6.3 Project teams for disaster risk management

The PDMSC may convene project teams such as disaster mitigation, preparedness, response as well as disaster relief, rehabilitation and reconstruction to address specific joint risk management priorities. .

Teams so convened will act as subcommittees of the PDMSC for the duration of their task and will determine their terms of reference and outcomes in consultation with the HoC and the PDMSC. Where required, they will also plan and manage multidisciplinary projects. Project teams will report back to the PDMSC.

In the context of the disaster mitigation, preparedness, response and recovery project teams will be convened to address disaster risk for priority natural and human-induced risks, triggered by hazards including floods, drought, fires, epidemics, transportation accidents, oil spills, hazardous material spills and crowd-related events. These disaster risk plans will include strategies and procedures to ensure the implementation of an incident management system that will include the establishment of joint standards of practice and interdisciplinary cooperation for rapid and effective disaster response capabilities. Such plans will also be subject to consultation with the WCDMAF.

### 1.2.7 Key performance indicators

- The job description and key performance indicators for the HoC have been prepared.
- The HoC has been appointed.
- The WCDMC is fully established with the necessary infrastructure and staffing and is functioning effectively.
- Each provincial organ of state has designated (appointed) a focal point for disaster risk management.
- Each provincial organ of state has determined its disaster risk management responsibilities and recorded responsibilities in the job descriptions of the relevant positions in the relevant departments.
- The PDMSC has been fully established and is operating effectively.
- Mechanisms for safe-keeping of accurate records of meetings, disaster risk management plans and strategies, reports, memoranda, correspondence, policies and legislation with regard to disaster risk management are established and maintained.
- Effective mechanisms are established to ensure sound financial management.
- Municipal disaster management centres have been established and are functioning effectively in the City of Cape Town and the five district municipalities in the province.

## 1.3 Arrangements for stakeholder participation, technical advice and planning

### 1.3.1 Objective

To put in place arrangements for the establishment of a forum that will enable the active participation of all stakeholders, including national organs of state, NGOs, communities, technical experts and the private sector, in the province's disaster risk management planning and operations.

### 1.3.2 The Western Cape Disaster Management Advisory Forum

#### 1.3.2.1 Purpose

In order for all relevant role players in disaster risk management in the province to coordinate their actions on matters relating to disaster risk management as prescribed in section 30(1) of the Disaster Management Act, the WCDMC must establish and maintain a disaster risk management advisory forum for the province. This is provided for in section 37 of the Act.

The WCDMAF must comprise the heads and designated focal points for disaster risk management of the relevant provincial organs of state, all the relevant stakeholders and role players, including NGOs, CBOs, individuals or groups with special technical expertise, and the Heads of the disaster management centres of the City of Cape Town and the five district municipalities in the province.

The WCDMAF must meet at least four times a year but is not precluded from meeting more frequently in accordance with prevailing circumstances.

### 1.3.2.2 Responsibilities of the Western Cape Disaster Management Advisory Forum

The responsibilities of the WCDMAF include:

- making recommendations to the WCDMC concerning disaster risk management policy, the provincial disaster risk management framework and municipal disaster risk management frameworks
- contributing to integrated and coordinated planning and operations
- contributing to the development and implementation of joint standards of practice
- participating in and contributing to the development of a risk profile for the province
- actively participating in risk reduction planning and operations
- promoting and participating in actions to ensure effective emergency preparedness
- making recommendations to the WCDMC regarding the allocation of responsibilities for the coordination and management of planning for disasters occurring as a result of a particular hazard
- contributing to the development of contingency plans
- contributing to the development and maintenance of the disaster response and recovery plans, including response capabilities
- participating in the identification of training, capacity building and research needs and initiatives
- promoting public awareness to contribute to building resilient individuals, households and communities who are alert and self-reliant and who are able to respond appropriately to early warnings
- supporting and contributing to the development and implementation of an information management and communication system for the province
- providing technical input and advice on matters relating to disasters and disaster risk management
- participating in the review of programmes and projects.

### 1.3.2.3 Composition of the Western Cape Disaster Management Advisory Forum

The forum must be convened and chaired by the HoC and must comprise the following members:

- The head of the WCDMC
- Heads of provincial departments designated by the Premier
- Designated disaster risk management focal points for provincial departments which have disaster risk management responsibilities
- Disaster risk management functionaries of the WCDMC
- Representatives of the South African Local Government Association (SALGA)
- Head of the disaster management centre of the City of Cape Town
- Heads of the disaster management centres of each of the five district municipalities in the province
- Heads of neighbouring provincial and district disaster management centres
- Representatives of emergency and essential services, national organs of state and organised business, including:
  - Medical services:
    - Emergency medical services: state and private
    - Hospitals: state and private
  - South African Police Service
  - South African National Defence Force
  - Department of Water Affairs and Forestry
  - Department of Home Affairs
  - Relevant parastatals, including:
    - Airports Company of South Africa (ACSA)
    - ESKOM
    - Mountain to Ocean (MTO)
    - SANpark
    - South African Weather Service
    - SPOORNET
    - TELKOM
    - South African Maritime Safety Authority
    - South African Ports Authority
    - South African National Roads Agency
  - Organised labour
  - NGOs, CBOs and other relevant role players, including:
    - Congress of Traditional Leaders of South Africa
    - Agricultural and farm workers associations
    - South African Red Cross Society
    - Life-saving associations
    - National Sea Rescue Institute
    - South African Council of Churches
    - South African Chamber of Business
    - Chamber of Commerce in the Western Cape province
    - Institutions of higher learning



- The media, including:
  - Radio and television
  - Local community radio stations
  - Print media and community newspapers
- Experts in disaster risk management designated by the Premier.

The WCDMAF will function operationally in three subcommittees, focusing respectively on disaster mitigation, preparedness/response and on recovery. In addition to the representatives listed herein the WCDMAF may at any time co-opt additional members or individuals for a specific task or for a specific period and appoint ad hoc task teams with appropriate expertise to perform specific tasks on prescribed matters. Such task teams will meet as required for the purpose of executing the task/s allocated. They must report back on progress to the WCDMAF.

#### **1.3.2.4 Special project task teams**

The chairperson of the forum (HoC) must appoint special task teams comprising members of the forum with the relevant expertise for specific projects for the purposes of risk reduction, emergency preparedness and response and recovery planning and operations.

#### **1.3.2.5 Secretariat**

The WCDMC will provide secretarial and support services for the WCDMAF.

### **1.3.3 Disaster risk management planning**

The WCDMC must ensure that an inclusive planning process is implemented to enable the active participation of relevant role players. The role of the provincial disaster management centre is to facilitate and coordinate the disaster risk management planning process and to ensure that primary responsibility is allocated to the lead functional organ of state or agency for each of the activities necessary for achieving the objectives of the Disaster Management Act.

In order to do this it will be necessary for the disaster management centre to cluster stakeholders into planning groups appropriate to the development of risk reduction strategies, hazard-specific contingency plans and operational guidelines for the various activities associated with disaster response and recovery. This will also serve to ensure that joint standards of practice are adopted.

The disaster management centre must ensure that primary responsibility is allocated to the lead functional organ of state or agency for each of the activities referred to above. Organs of state or agencies playing secondary roles must be identified and allocated responsibilities accordingly.

The entity allocated primary responsibility is the custodian of the relevant disaster risk management plans and is therefore responsible to ensure that relevant plans are submitted to the WCDMC. The entity is also responsible for ensuring that the plans are regularly reviewed and aligned with changing environments and new developments.

### **1.3.4 Arrangements for stakeholder participation in the municipal sphere for the purposes of disaster risk management**

Each municipal disaster management centre in the province must establish a municipal disaster management advisory forum as recommended in the NDMF and provided for in section 51 of the Disaster Management Act. This is to ensure integrated and coordinated disaster risk management and to provide mechanisms for offering technical advice as well as facilitating stakeholder participation.

#### **1.3.5 Key performance indicators**

- The WCDMAF has been established and is fully functional.
- The WCDMAF meets at least four times a year.
- Accurate records of the WCDMAF activities are maintained.
- Special task teams appointed for specific tasks acquit their tasks and produce reports on progress to the WCDMAF.
- Municipal disaster management forums are established and are functioning effectively in the City of Cape Town and the five district municipalities in the province.

## **1.4 Arrangements for local, regional, national and international cooperation**

### **1.4.1 Objectives**

- To establish arrangements for giving effect to the principles of cooperative governance.
- To establish mechanisms that will ensure an integrated and uniform approach to disasters and disaster risk management in the province and in relation to neighbouring authorities.
- To establish international links to foster cooperation, to ensure the adoption of joint standards of practice and to keep pace with global developments in the field of disaster risk management.

### **1.4.2 Giving effect to the principles of cooperative governance**

The WCDMC is responsible for ensuring that institutional arrangements for disaster risk management in the province give effect to the principles of cooperative governance. Disaster risk management involves a wide range of role players across sectors and within disciplines in all three spheres of government. The effective application of the national objective, the provisions of the Disaster Management Act and the NDMF are therefore dependent on participative planning, cooperation, partnerships and collateral support.

The WCICDM (see subsection 1.1.3) provides the political forum for the application of the principles of cooperative governance for the purposes of disaster risk management by bringing together political representatives from the provincial and municipal spheres of government.

The PDMSC (see subsection 1.2.7.1) provides the mechanism for bringing together technical expertise from the various sectors and disciplines within the provincial sphere.

The WCDMAF (see subsection 1.3.2) provides a further mechanism for the application of cooperative governance by providing a forum for representatives of all three spheres of government to participate in planning and the development of cooperative partnerships for the purposes of disaster



risk management and to provide for technical and specialist input by a wide range of role players and stakeholders.

In order to further promote the concept and application of cooperative governance, the meetings of the WCDMAF must be preceded by a meeting of the heads of the municipal disaster management centres and a representative of SALGA.

#### **1.4.3 Mutual assistance agreements**

In terms of the Disaster Management Act provincial organs of state and municipalities must establish whether they have the capacity to identify, plan and meet their responsibilities for risk reduction and disaster response and recovery in their functional area. Where necessary, they must enter into mutual assistance agreements and memoranda of understanding with neighbouring authorities, authorities in other spheres, other organs of state, the private sector, NGOs and communities. Such mutual assistance agreements and memoranda of understanding are legal documents, which must be in accordance with the national guidelines on mutual assistance agreements developed by the NDMC.

#### **1.4.4 Cooperation with neighbouring authorities**

Disaster risks are seldom confined by boundaries and therefore actions and developments undertaken in neighbouring provinces have the potential to impact either positively or negatively on the Province of the Western Cape. Similarly measures taken within the province have the potential to impact either positively or negatively on neighbouring areas. It is therefore imperative that the WCDMC establish mechanisms whereby integrated planning can take place for the sharing of responsibilities and for the application of joint risk reduction methodologies.

The most effective mechanism to achieve this within the WCDMAF is to include the heads of provincial disaster management centres from the Northern Cape and Eastern Cape.

The WCDMC must also establish similar mechanisms to ensure joint planning and standards of practice for the management of cross-boundary risks within the province. This can best be effected by the establishment of special project teams (section 1.3.2.4) for the purpose.

#### **1.4.5 International cooperation**

In order to keep pace with, as well as to contribute to, global developments and initiatives in disaster risk management and related fields, the WCDMC must seek membership and establish links with international bodies, professional institutes, disaster management centres and professionals performing similar tasks in other countries.

The WCDMC must align itself with the national policy, provide support and where possible contribute to the NDMC's initiatives for the provision of international humanitarian assistance.

#### **1.4.6 Key performance indicators**

- Mechanisms are in place to provide for the active participation of all relevant role players and stakeholders for the purposes of local, regional, national and international cooperation.
- Adequate funding arrangements are in place to provide for the application of the principles of cooperative governance and for the purposes of cooperation, networking and participation by the WCDMC in regional and international bodies and forums.

### **Key performance area 2: Disaster risk assessment**

#### **Objective**

To establish a uniform approach to assessing and monitoring disaster risks in the Province of the Western Cape that will inform disaster risk management planning and reduction undertaken by provincial organs of state and other role players.

#### **Introduction**

Disaster risk refers to the likelihood (chance) that there will be a harmful impact of some kind due to the interaction between natural and other hazards and vulnerable structures, services, environments, communities and households.

This key performance area addresses the need for disaster risk assessment and monitoring to set priorities, guide disaster risk reduction action and monitor the effectiveness of such efforts.

The Disaster Management Act, No. 57 of 2002 specifies that all provinces, to the extent that they have the capacity, should carry out disaster risk assessments (section 33(1)) to identify priority disaster risks relevant to them. These should be carried out interdepartmentally and, where necessary, in collaboration with relevant national government departments and other stakeholders so as to avoid duplication of efforts.

#### **Outline**

Section 2.1 introduces the process involved in conducting a disaster risk assessment.

Section 2.2 addresses processes for maintaining and improving an Indicative Disaster Risk Profile for the Province of the Western Cape.

Section 2.3 describes requirements for monitoring, evaluating, improving and disseminating disaster risk information.

Section 2.4 looks at measures to ensure quality control in disaster risk assessment and monitoring.

Figure 2.1 (overleaf) provides an overview of KPA 3.

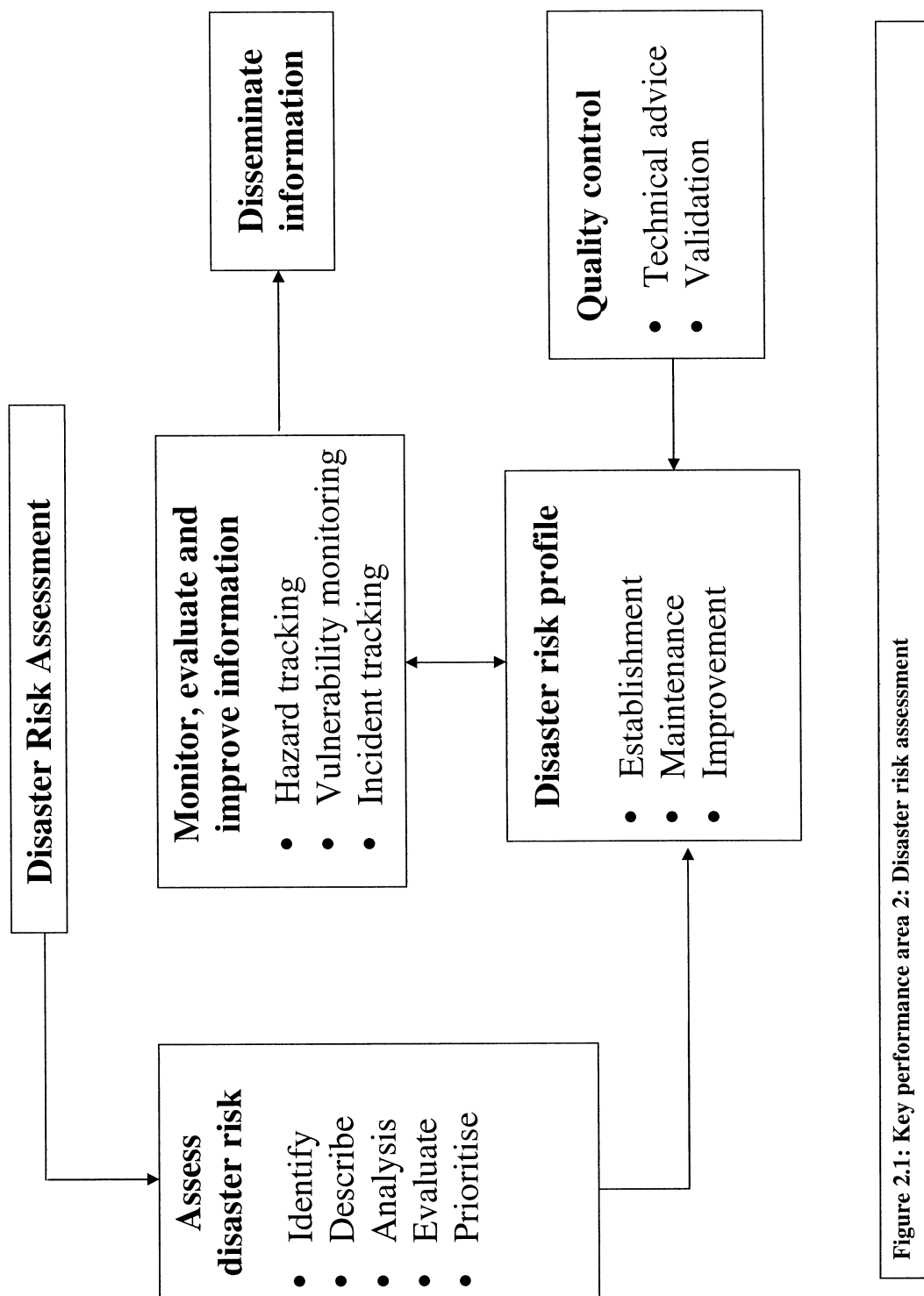


Figure 2.1: Key performance area 2: Disaster risk assessment

## 2.1 Disaster risk assessment

Disaster risk assessment is the first step in planning an effective disaster risk reduction programme. It examines the likelihood and outcomes of expected hazard events, including the vulnerability conditions that increase the chances of loss.

Disaster risk assessments supported by good monitoring are essential for:

- effective disaster risk management and reduction planning
- sustainable development planning
- identifying potential threats that can compromise the success and sustainability of developments and thereby making it possible to incorporate disaster risk reduction measures in the design of a project
- informing disaster risk reduction programmes for specific threats
- identifying periods and conditions of high risk, and
- informing emergency preparedness planning.

Provincial government must execute thorough disaster risk assessments in the following instances:

- prior to the implementation of any provincial disaster risk reduction, preparedness or recovery programme
- as an integral component of the planning phase of any large-scale development (e.g. housing or infrastructure)
- as an integral component of the planning phase of any initiative that could have a significant impact on the natural environment
- when social, economic, infrastructure, environmental, climatic or other indicators suggest changing patterns of disaster risk that increase the likelihood of province-wide disaster impacts.

All proposed disaster risk assessments planned by provincial departments must be reviewed by the PDMSC, the Province of the Western Cape Disaster Management Advisory Forum and the National Disaster Management Centre at the outset to ensure that they are consistent with the national approach.

### 2.1.1 Situations requiring a disaster risk assessment

A disaster risk assessment is required to guide disaster risk reduction efforts for specific known threats or disaster events and processes that:

- due to their scale and magnitude are likely to affect more than one municipality
- are of recurrent high and medium magnitude, occur in most municipalities and may require provincial support and/or intervention
- occur infrequently or seasonally (for example, veld fires and flooding), have the potential to cause severe loss, and require levels of specialist support not available at municipal level.

Disaster risk assessments must be undertaken when one or more of the vulnerability reduction criteria, listed in Table 2.1, are considered priorities in any provincially initiated project or programme.

**Table 2.1: Situations requiring disaster risk assessments**

Key vulnerability reduction criteria	Examples of where disaster risk assessments must be done
To increase <i>sustainability</i> of a development project or programme to support vulnerable households	When planning infrastructure development so that any risks can be factored into the construction specifications (for example, assessing the likelihood of weather, flooding or other threats damaging the structure and providing specifications for dealing with these).
To reduce <i>potential harmful consequences</i> associated with industrial, commercial or other developments	As part of environmental impact assessments for large-scale developments, including industrial, commercial and other enterprises, that may increase disaster risk.
To increase <i>understanding of a rapidly changing risk</i> for improved disaster risk management planning	In a flood-prone estuarine area that has recently experienced considerable population growth and is facing increased coastal erosion.
To increase <i>robustness of development initiatives</i> in poor communities and areas	In an informal settlement characterised by recurrent 'small' and 'medium-size' disaster losses that undermine assets and livelihoods.
To manage <i>high-risk periods and conditions</i> to ensure service and/or business continuity	To ensure that essential electricity transmission lines and rail infrastructure, health services and emergency services, do not 'fail' under expected high-risk conditions.
To provide appropriate support for at-risk activities, services, areas, communities and households <i>following an 'alert'</i>	Following a drought warning in rural areas, to identify communities and households most at risk and to focus or target preparedness and response actions.

### 2.1.2 Steps involved in a disaster risk assessment

Disaster risk assessment is a process that determines the level of risk by:

- identifying and analysing potential hazards and/or threats
- assessing the conditions of vulnerability that increase the chance of loss for particular elements-at-risk (that is, environmental, human, infrastructure, agriculture, economic and other elements that are exposed to a hazard, and are at risk of loss)
- determining the level of risk for different situations and conditions
- assisting in setting priorities for action.

A reliable disaster risk assessment for a specific threat should answer the following questions:

- How frequently can one expect an incident or disaster to happen?
- Which areas, communities or households are most at risk?
- What are the likely impacts?
- What are the vulnerability environmental and socio-economic risk factors that increase the severity of the threat?
- What capabilities or resources exist to manage the risk?
- Is the risk becoming more serious?

- Is the risk undermining development progress in the areas, communities and households it affects?
- If so, is the management of the risk a provincial development priority?
- In the areas and communities affected by the risk, are there any other significant risks?

### 2.1.3 Undertaking a disaster risk assessment

The process for assessing disaster risk always involves the following four basic stages:

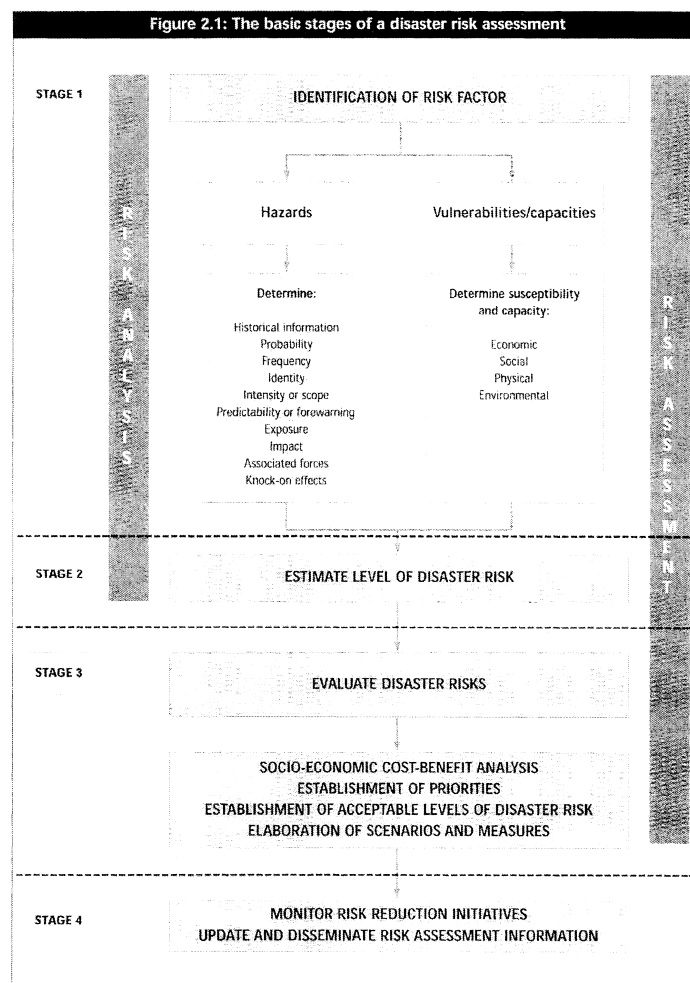
- Identify and describe the disaster risk(s) to be assessed,
- Analyse the disaster risk(s) concerned.
- Evaluate the disaster risk(s), and
- Inform ongoing disaster risk reduction and planning.

#### 2.1.3.1 Stage 1: Identify and describe the disaster risk(s)

1. Identify and describe a specific hazard with respect to its frequency, magnitude, speed of onset, area affected and duration.
2. Describe and quantify, where possible, the vulnerability of people, infrastructure (including homes and dwellings), services, economic activities and natural resources exposed to the hazard.
3. Estimate the likely losses resulting from the hazard's action on those that are vulnerable to indicate likely consequences or impacts.
4. Identify relevant capacities, methods and resources already available to manage the risk.

#### 2.1.3.2 Stage 2: Analyse the disaster risk(s)

1. Assess the effectiveness of capacities, methods and resources already available to manage the risk, as well as gaps, inconsistencies and inefficiencies in provincial government and other relevant agencies.
2. Estimate the level of risk associated with a specific threat to determine whether the resulting risk is a priority or not. The level of risk is estimated by matching the likelihood of a hazard event with its expected impact or consequences. This process allows different threats to be compared for the purpose of priority setting.



### 2.1.3.3 Stage 3: Evaluate the disaster risk(s)

1. The disaster risk analysis assists in prioritising disaster risks when there are multiple threats present. However, when several threats are assessed at the same level of risk, limited resources and budgets require that they be prioritised. This process, called 'risk evaluation', is necessary because it is not possible to address all risks at the same time.
2. A useful approach for comparing different types of disaster risk evaluates the seriousness, manageability, urgency and growth of a particular risk to determine whether it ranks higher as a priority than other risks (see Table 3.2).

**Table 2.2: Evaluating the disaster risk**

Evaluation criteria	Evaluation questions
Seriousness	How severe could the disaster be if no disaster risk reduction measures are taken? Can we live with this?
Manageability	How difficult is it to reduce the risk? What are the costs compared to the benefits of disaster risk reduction?
Urgency	How critical is it to tackle the disaster risk now, given its frequency and impacts?
Growth	How quickly is the disaster risk increasing (for example, as a result of rising population vulnerability or more extreme weather events)?

3. The priority at-risk individuals, households, communities, areas and developments should be the focus of multidisciplinary and comprehensive disaster risk assessments aimed at implementing disaster risk reduction initiatives. See Table 3.3 for a range of disaster risk assessment methods and required associated expertise.

### 2.1.3.4 Stage 4: Inform ongoing disaster risk reduction and planning

1. Conduct ongoing monitoring to determine the effectiveness of disaster risk reduction initiatives, identify changing patterns and new developments in disaster risk profiles, revise and disseminate information for the purpose of disaster risk management planning.

### 2.1.3.5 Relationship with disaster management planning

Findings of stages 1 and 2 will inform the development of Level 1 Disaster Risk Management Plans by identifying:

- Known priority risks needed for contingency planning
- Priorities for vulnerability reduction planning
- High-risk areas, communities and households exposed to multiple risks as well as high-risk developments.

The results of Stage 3 will inform the development of a Level 2 Disaster Risk Management Plans while the outcomes of Stage 4 will do likewise for a Level 3 Disaster Risk Management Plans.

### 2.1.4 Consultation in determining disaster risk management strategies

Disaster risk management strategies must be appropriate for the determined level of risk, with the desired outcome being the achievement of better integration of community preparedness, prevention, and response and recovery strategies. The principle of the lowest acceptable risk at an affordable cost applies.

Disaster risk reduction management needs effective communication and consultation and it must be diligent, reasonable and meet established standards. In addition, consultation is necessary as:

- Disaster risk management is a process that involves judgement and knowledge gained from experience. The process of consultation harnesses and mobilises the collective experience of stakeholders.
- Diverse and often conflicting interests need to be accommodated.
- Agreement is needed in the choice of disaster risk management options and strategies to be adopted.
- It is essential to gather all the necessary information so as to make informed decisions.

### 2.1.5 Community-based disaster risk assessment

In accordance with the Disaster Management Act, No. 57 of 2002 intent to increase local capacity to minimise the risk and impact of disasters, disaster risk assessment efforts must actively include the participation of vulnerable communities and households, including physically isolated communities and female-headed and child-led households. The information collected using more technically sophisticated methods employed by risk scientists can be significantly enhanced by local and indigenous knowledge relating to disaster management. In addition, the active engagement of special needs groups, such as women, children and the elderly, improves the quality of the assessment findings and increases the likelihood of community ownership of any disaster risk reduction interventions that may follow.

### 2.1.6 Obtaining additional information when undertaking a disaster risk assessment

Information on specific disaster risks is often fragmented. Consequently, the following must be undertaken and documented when conducting a disaster risk assessment:

- Complete an audit of past significant events and events classified as disasters to identify areas and communities most at risk and help focus more detailed disaster risk assessment efforts.
- Consult with community members in areas affected by past events for information on frequency and severity of events classified as disasters, significant events and recurrent small-scale occurrences.
- Consult with long-standing members of emergency services, the South African Red Cross Society, the Salvation Army or other humanitarian assistance organisations who remember or have recorded past disaster responses.
- Consult with specialist research institutes, universities and the private sector and obtain existing research reports.
- Check with the appropriate provincial departments for information or relevant research that may have already been carried out or commissioned.
- Consult with the (re-)insurance industry (underwriters).

### 2.1.7 Selecting disaster risk assessment methods and approaches

Disaster risk assessment methods will differ according to the hazards being reviewed, the size and character of the area being assessed, the time frame under consideration and the resources available. Table 2.3 provides examples of different types of disaster risk and possible appropriate disaster risk assessment methods.

Table 2.3: Types of disaster risk and assessment methods		
Types of risk	Possible disaster risk assessment methods	Expertise
Potential flood risk in a developed estuarine area	<ul style="list-style-type: none"> <li>• Flood hydrology and hydraulics</li> <li>• Ecological and environmental assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental and hydrological specialists</li> </ul>
Potential fire risk in a large informal settlement	<ul style="list-style-type: none"> <li>• Historic and seasonal review of past fire events graphed or mapped over time</li> <li>• Aerial photographs to indicate density or other spatial changes over time</li> <li>• Participatory rural appraisal (PRA)/livelihoods analysis/focus group interviews</li> <li>• Demographic and socio-economic analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Urban development facilitators/planners</li> <li>• Fire prevention specialists</li> <li>• Social scientists</li> </ul>
Potential wind storm or tornado risk in a rural area	<ul style="list-style-type: none"> <li>• Consultation with local leadership</li> <li>• History of past events</li> <li>• Climate and seasonal analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Indigenous knowledge</li> <li>• Community facilitators</li> <li>• Climatologists</li> </ul>
Drought risk in a rural community	<ul style="list-style-type: none"> <li>• PRA/livelihoods analysis/focus group interviews</li> <li>• Historic rainfall information, history of drought and impacts</li> <li>• Remote-sensed information on vegetation and cloud cover</li> </ul>	<ul style="list-style-type: none"> <li>• Rural development facilitators</li> <li>• Agricultural specialists</li> <li>• Public health specialists</li> <li>• Climatologists</li> </ul>

#### 2.1.7.1 Provincial standard for assessment of priority risks

The National Disaster Management Framework establishes a uniform approach to disaster risk management that should be used to guide the assessment of priority risks at provincial and local levels. This is necessary for consolidating disaster risk and loss information from different sources. In this context, the provincial framework foresees the development of a provincial standard for the assessment of priority disaster risks. In the interim, prior to the development of such a standard:

- all proposed disaster risk assessments planned by the Province of the Western Cape must be reviewed by the Province's Intergovernmental Committee on Disaster Management prior to commissioning of the assessments
- all proposed disaster risk assessments planned by metropolitan and district municipalities must be reviewed by the Province of the Western Cape's Intergovernmental Committee on Disaster Management prior to commissioning of the assessments
- all proposed disaster risk assessments planned by local municipalities must be reviewed by the appropriate district disaster management centre prior to commissioning of the assessments.
- all proposed disaster risk assessments planned by local municipalities must be reviewed by the appropriate district disaster management centre, and in the case of the City of Cape Town, the Provincial Disaster Management Centre, prior to commissioning of the assessments.

#### 2.1.8 Consolidation and classification of disaster risk information

Hazard and vulnerability assessment findings must be consolidated according to uniform classifications. This facilitates integrated multisectoral planning across provincial departments and with other partners. It also supports disaster risk management co-operation between administrative areas (for example, two or more district municipalities) affected by the same risk. An internationally recognised classification of hazards that should be used is given in Table 3.4. This classification is provided by the United Nation's International Strategy for Disaster Reduction.

Vulnerability should be assessed as social, economic, political, environmental or physical (infrastructure). As vulnerability factors are often the major drivers of disaster risk, rather than external hazard processes, it is critical to identify these during a disaster risk assessment. This provides important insights for developing vulnerability reduction interventions that lower the levels of disaster risk.

Table 2.4: Classification of hazards	
Natural hazards	Examples
Geological	Landslides, rockslides, liquefaction, subsidence
Biological	Epidemic diseases affecting people or livestock, veld fires, plant infestations
Hydro-meteorological	Floods, debris flows, tropical cyclones, storm surges, severe storms, drought, desertification
Natural hazards	Examples
Technological	Industrial pollution, nuclear activities, toxic waste, dam failure, transport accidents
Environmental degradation	Land degradation, deforestation, loss of biodiversity

#### 2.1.9 Key performance indicators

- A set of provincial guidelines for the Province of the Western Cape based on national standards and disseminated through the Province of the Western Cape Intergovernmental Committee on Disaster Management for assessing priority disaster risks has been developed and is applied in provincial and municipal spheres.
- The Province of the Western Cape has generated a provincial standard for assessing priority disaster risks.
- Relevant disaster risk assessment legislation, policy and implementation guidelines by provincial organs of state have been developed and applied.
- There is documented evidence of progressive integration of disaster assessment into development planning of provincial and municipal organs of state and other role players in Integrated Development Plans and annual reports submitted to the National Disaster Management Centre by the Province of the Western Cape's Intergovernmental Committee on Disaster Management and, where appropriate, local municipalities.



## 2.2 Maintaining and improving the Indicative Disaster Risk Profile for the Province of the Western Cape

The Province of the Western Cape undertook a preliminary disaster risk and vulnerability assessment during 2002 and this should be used as the basis of any subsequent disaster risk assessments by the province. The prevalent hazards identified during this assessment together with the suggested lead agents are given in the below hazard table.

Key Disaster Risks

Key: National = N  
Provincial = P

Broad Hazard Category	Specific Disaster Risk Category	Proposed Primary Entity
	<b>Climate-Related</b>	
	• Extreme weather	(DWA F) (When floods occur) (N)
	• Meteorological drought	Department of Agriculture (N & P)
Hydrometeorological		
	<b>Hydrological</b>	
	• Riverine flooding	DWAF (N)
	• Estuarine flooding	DWAF (N)
	• Coastal flooding/storm surges	DWAF (N)
	• Urban flooding	DWAF (N)
	• Hydrological drought	Department of Agriculture (N & P)
	• Agricultural drought	Department of Agriculture (N & P)
Geological	Seismic risks and earthquakes	Department of Mineral Affairs (N)
	Rockfalls and landslides	Department of Mineral Affairs (N)
	<b>Fires</b>	
	• Urban fringe fires	DPLG (N & P)
	• Veldfires	DWAF (N)
Biological		
	<b>Epidemics</b>	Department of Health (N & P)
	• Humans	Department of Health (N & P)
	Livestock	Department of Agriculture (N & P)
Environmental	Air pollution	Department of Environmental Affairs and Tourism (N & P)
	Water pollution	Department of Environmental Affairs and Tourism (N & P)
	Soil erosion/land degradation	Department of Environmental Affairs and Tourism (N & P)
Technological	<b>Risks associated with installations</b>	
	• Power plants	Depends on primary service delivery agent i.e. Koeberg — (Escom) Department of Mineral Affairs (N & P)
	• Bridges	
	• Dams	
	• Petrochemical installations	
	<b>Risks associated with transport</b>	
	• Roads	Department of Transport and the Department of Environmental Affairs and Tourism (N & P)
	• Air	
• •	• Sea	
	• Rail	
	<b>Hazmats</b>	
	• Marine oil spills	Department of Transport and the Department of Environmental Affairs and Tourism (N & P)
	• Toxic cargo spills	
	• Radioactivity emissions	
	<b>Risks associated with flammable materials and surfaces</b>	
	• Urban formal fire	DPLG (N & P)
	• Urban informal fire	DPLG (N & P)



### 2.2.1 Consolidating information across sectors and government spheres

Disaster risk assessment information for the Province of the Western Cape generated by provincial departments, municipalities and research commissions during 2002 has been consolidated by the Province of the Western Cape Intergovernmental Committee on Disaster Management to provide an initial Indicative Disaster Risk Profile.

In this context, geographical information systems (GIS) represent a powerful tool for spatially representing hazard, vulnerability and consolidated disaster risk information. The Province of the Western Cape Intergovernmental Committee on Disaster Management must, however, ensure that the information presently contained in the GIS is scientifically validated and sufficiently robust for inclusion in the profile. This would include consolidating information on recorded losses for specific threats in individual municipalities.

The profile needs constantly to take into account the unevenness in the quality of available hazard and vulnerability information in the Province of the Western Cape and the dynamic nature of the risks they describe. In this context, current information provided at provincial scale does not fully represent disaster risk conditions at municipal levels. However, improvement of the profile should lead to more detailed disaster risk investigations being done at municipal levels.

The process of maintaining and improving the existing information in the profile must be inclusive. The Province of the Western Cape's Intergovernmental Committee on

Disaster Management must contact specialist research units, private sector partners and government departments for relevant scientific reports on hazard and vulnerability patterns. It must also consult with Non-governmental Organisations, Community Based Organisations and traditional authorities on historic and changing patterns of risk.

Information in the Indicative Disaster Risk Profile should be evaluated by the Province of the Western Cape's Intergovernmental Committee on Disaster Management on an annual basis. Such evaluations should focus on whether or not current information was of a sufficient quality to support 'on the ground' needs.

### 2.2.3 Key performance indicators

- Priority threats of provincial significance have been identified and mapped by the Provincial Disaster Management Centre.
- Mechanisms to consolidate, map, revise and make accessible information on the Province of the Western Cape's priority risks have been established by the Provincial Disaster Management Centre and are in line with national guidelines and standards.
- Procedures to consolidate, map, revise and make accessible information on the Province of the Western Cape's priority risks have been established and documented by the Provincial Disaster Management Centre.
- Ground-truthing through field consultations in the areas and with communities most at risk from the threat(s) being assessed.

## 2.3 Monitoring, evaluating and improving disaster risk information

The monitoring and evaluation of progress is essential if continuous and systematic improvement is to be achieved.

### 2.3.1 Monitoring disaster risks

Disaster risks are not static. They change seasonally and over time. To recognise such changes, and to modify programmes and adjust policies accordingly, all provincial government departments must have monitoring systems in place that are relevant to their specific functional responsibilities.

These systems form the basis for sounding timely warnings of, or alerts for, impending threats. They are also essential for monitoring the effectiveness of ongoing disaster risk reduction efforts. Disaster risk monitoring systems involve:

- hazard tracking
- vulnerability monitoring
- disaster event tracking.

#### 2.3.1.1 Hazard tracking

Hazard tracking systems monitor the physical phenomena that can trigger disaster events. They include systems that provide seasonal and early warning information on approaching adverse weather conditions. For example, systems that track the seasonal build-up of vegetation fuels over large areas provide critical warning information on potential veld fire conditions.

#### 2.3.1.2 Vulnerability monitoring

Vulnerability monitoring systems are systems that track the ability of communities, households, critical services and natural environments to resist and withstand external threats. Censuses, regular poverty surveys, nutritional surveys and information collected from health clinics provide important insights into changing social vulnerability patterns in at-risk communities (for example, an increase in the number of child-headed households or elderly adults with dependants). As this information is often routinely collected by government services, special surveys or parallel monitoring initiatives are not usually required to gather it.

These quantitative data must be supported by qualitative information that tracks local capabilities to absorb recurrent shocks and stresses, as well as local capacities to resist and recover from external threats.

#### 2.3.1.3 Disaster event tracking

Disaster event tracking systems monitor changing patterns in disaster risk. Increasing or decreasing frequencies of unclassified disaster incidents are sensitive indicators of changing disaster risk patterns in at-risk areas. For instance, a rising incidence pattern of small and medium-size informal settlement fires may represent an early warning of accumulating risks, which may result in a more serious and destructive fire event. It also signals a call for urgent measures to avert the impending disaster.

Information on small and medium 'undeclared' events can be found in many different sources, including local newspapers, fire and disaster management reports, and records of, for example, the South African Red Cross Society.

### **2.3.2 Revising and evaluating (reviewing) the Indicative Disaster Risk Profile for the Province of the Western Cape**

Disaster risk is dynamic. It is driven by a combination of hazard and vulnerability processes, including changing patterns of land-use, infrastructure development/maintenance, urban growth and the increasing density of settlements. Similarly, household size and composition, health status and level of livelihood security affect household potential for loss. Some risks, particularly those triggered by climate processes, must be reviewed seasonally prior to the rainy winter season or hot dry summer months. Other risks, such as riverine flood risk, require extensive flood hydrology investigations, and may be undertaken once during a 20-year period. Provincial and municipal organs of state must seek technical advice from recognised disaster risk specialists to determine the need for updating a comprehensive disaster risk assessment for a specific threat.

Provincial and municipal organs of state with responsibilities for reducing and managing specific risks must review the Province of the Western Cape's Indicative Disaster Risk Profile for their functional areas annually to determine if disaster risk conditions have changed detrimentally. If physical, atmospheric, environmental, health or socio-economic conditions have worsened considerably, or if there are increasing disaster losses reported from small and medium-size events, the assessment and profile must be updated.

### **2.3.3 Responsibility for monitoring, evaluating (reviewing) and improving provincial disaster risk information**

Provincial organs of state, lead agents and other specialist role players with responsibilities for reducing and managing disaster risks must have clear mechanisms for:

- accessing and updating relevant hazard and vulnerability information on the risks
- specific to their functional areas
- making this information available to the PDMC.

In addition, provincial and municipal disaster management centres must:

- establish clear mechanisms for accessing, consolidating, updating and reviewing relevant hazard, vulnerability and disaster occurrence information from specialist government and non-governmental partners responsible for monitoring specific risks.
- develop and implement clear mechanisms for disseminating disaster risk assessment and monitoring information for ongoing planning, as well as for managing conditions of heightened disaster risk
- establish clear procedures for accessing, interpreting and disseminating timely weather information, particularly when this is associated with potentially endangering rapid-onset storm or cyclone processes, heavy seas, hot dry temperatures, strong winds, heavy rainfalls or snow, ice or fog conditions
- ensure that individuals who are skilled in both information technology and disaster risk analysis manage the disaster risk information systems of municipal disaster management centres.

### **2.3.5 Key performance indicators**

- National and provincial departments (including lead agents) with responsibilities for reducing and managing disaster risks specific to their functional areas in the Province of the Western Cape have established clear and documented mechanisms for rapid accessing and updating of relevant hazard and vulnerability information and for rapidly making this information available to the Provincial Disaster Management Centre.
- Provincial and municipal disaster management centres have established and documented clear mechanisms for accessing, consolidating and updating relevant hazard, vulnerability and disaster occurrence information from partners responsible for monitoring specific risks.
- Provincial and municipal disaster management centres have established and documented clear mechanisms for disseminating disaster risk assessment and monitoring information for ongoing planning, as well as for managing conditions of heightened risk.
- Provincial and municipal disaster management centres have established and documented clear procedures for accessing, interpreting and disseminating timely weather information, particularly when this is associated with potentially endangering rapid-onset storm or cyclone processes, hot dry temperatures, strong winds, heavy rainfalls or snow, ice or fog conditions.

## **2.4 Ensuring quality control**

Disaster risk assessments must be robust and reliable if they are to be useful for disaster risk reduction planning.

### **2.4.1 Measures to establish the accuracy of disaster risk assessments**

Two mechanisms can be used to ensure the accuracy of the disaster risk assessment undertaken to inform provincial and metropolitan area planning:

- establishment of a technical advisory committee
- external validation or peer review of methods and findings.

#### **2.4.1.1 Technical advisory committee**

A technical advisory committee, comprising recognised specialists in the hazards, vulnerabilities and risks being assessed, is particularly necessary when complex disaster assessments are being carried out. This committee can assist with the development of terms of reference, the monitoring of progress, and the validation and/or interpretation of the findings.

#### **2.4.1.2 External validation process for methods and findings**

At a minimum, all assessments carried out at provincial and municipal levels should be externally validated with respect to the methods used and findings generated.

This external validation process should be undertaken before any programmes are implemented or before any maps or reports for planning purposes are published or disseminated, where such programmes, maps or reports are based on the assessment findings.

External validation of the findings should be undertaken with the input of nationally recognised specialists who may be drawn from specialist ministries, research institutions, Non-governmental organisations or the private sector.

### **2.4.2 Key performance indicators**

- There is documented evidence in disaster risk assessments undertaken of external validation prior to:

- the publication or dissemination of hazard, vulnerability or disaster risk maps and/or reports for planning purposes
- the implementation of disaster risk reduction or other initiatives based on the assessment results.
- Disaster risk assessments undertaken show documented evidence of technical consultation with the appropriate disaster management centre(s) prior to implementation.

## 2.5 Guidelines to be developed and disseminated

- Provincial guidelines and standards for assessing priority disaster risks in provincial and municipal spheres need to be developed in accordance with national guidelines and standards.

## Key Performance Area 3: Disaster risk reduction

### Objective

Ensure that disaster risk management stakeholders develop and implement integrated disaster risk management plans and disaster risk reduction programmes in accordance with approved frameworks.

### Introduction

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

### Outline

Section 3.1 introduces disaster risk management planning as a strategic priority.

Section 3.2 describes priority setting with regard to disaster risk reduction planning.

Section 3.3 outlines approaches for scoping and developing disaster risk reduction plans, projects and programmes.

Section 3.4 addresses the integration of risk reduction initiatives into other strategic integrating structures and processes.

Section 3.5 focuses on the implementation and monitoring of disaster risk reduction activities.

Figure 3.1 overleaf presents the key components of KPA 3.

## 3.1 Disaster risk management planning

The Provincial Disaster Management Centre must ensure that coherent and relevant disaster risk management planning is undertaken by provincial and municipal organs of state, municipal entities and other institutional role players.

### 3.1.1 Disaster risk management frameworks and plans

Disaster management frameworks and disaster risk management plans are the strategic mechanisms through which disaster risk management action is coordinated and integrated across all spheres of government (see Figure 3.2 overleaf).

#### 3.1.1.1 Provincial and municipal disaster risk management frameworks

The Disaster Management Act requires the development of provincial disaster management frameworks for each province and disaster management frameworks for all district and metropolitan municipalities.

In all spheres of government, the disaster management framework is the guiding and coordinating policy instrument for ensuring an integrated and uniform approach to disaster risk management by all organs of state and other institutional role players. This includes Non-governmental Organisations, the private sector and institutions of higher learning. With specific reference to district municipalities, the disaster management framework is the integrating instrument for consolidating the disaster risk management plans of individual municipalities within the district.

Each disaster management centre in the respective spheres of government is responsible for facilitating the development of the disaster management framework in its area of jurisdiction in an inclusive manner, and subsequently amending it in consultation with key stakeholders.

Provincial and municipal disaster management frameworks must be consistent with the national disaster management framework and must:

- establish institutional arrangements for disaster risk management, including formal consultative processes that provide for participative planning,
- define an appropriate vision and approach to disaster management for the area concerned in consultation with all stakeholders,
- define processes for undertaking appropriate disaster risk assessments for the areas in which they will be implemented,
- specify arrangements for risk reduction planning and contingency planning, including response and recovery planning,
- establish an integrated supportive disaster risk information system,
- identify processes for building public awareness capabilities, as well as supporting relevant training, education and research initiatives, and
- define supportive funding arrangements for implementing disaster risk management.

#### 3.1.1.2 Minimum requirements for disaster risk management plans

All national, provincial and municipal organs of state, municipal entities and other institutional partners identified as key role players in disaster risk management are required to prepare and complete disaster risk management plans. Although the Disaster Management Act specifies clear requirements for completed disaster risk management plans, it is also recognised that:

- there is unevenness in disaster risk management planning capacity and experience
- provincial organs of state compiling disaster risk management plans for the first time will need to undertake careful consultation before completing such plans.

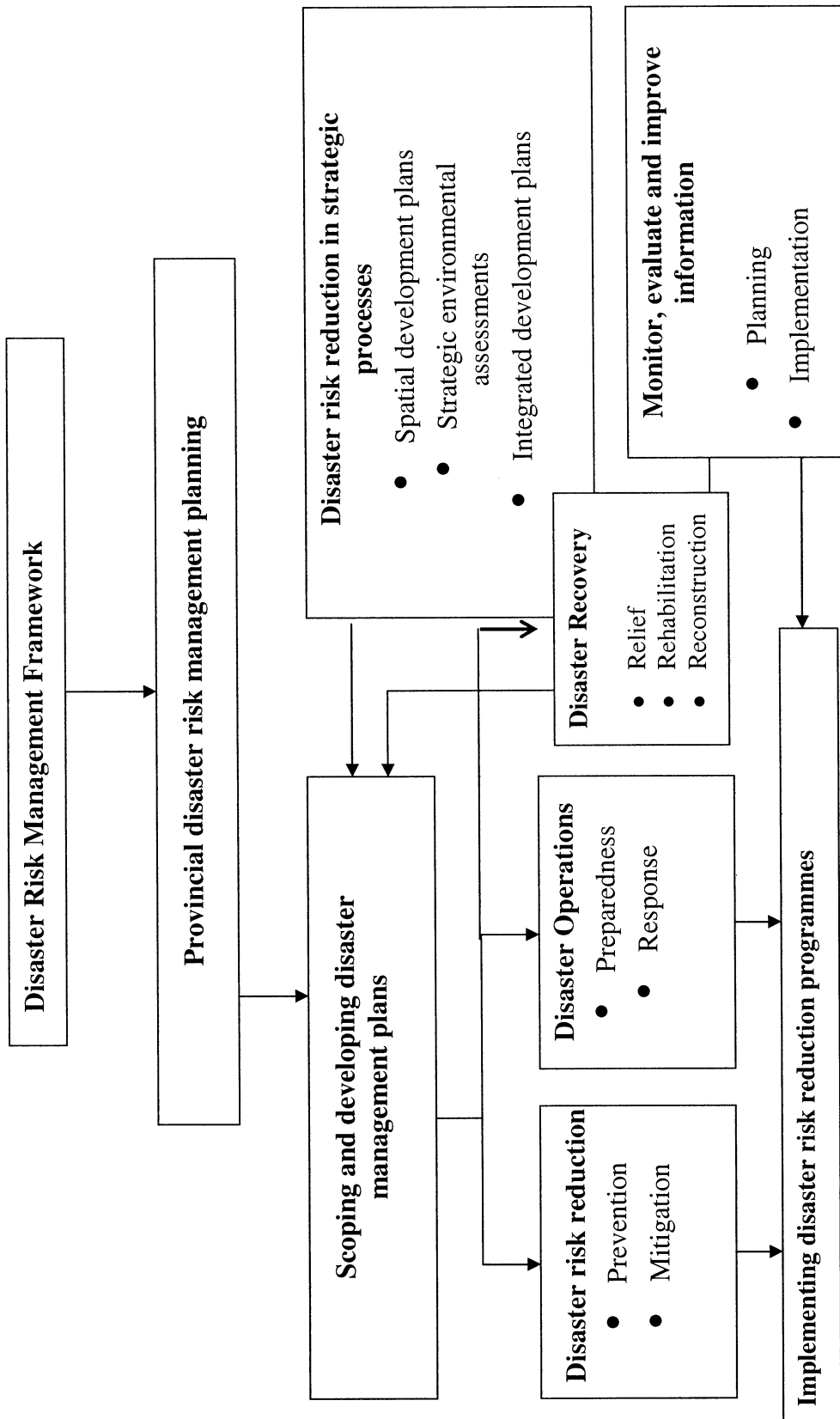
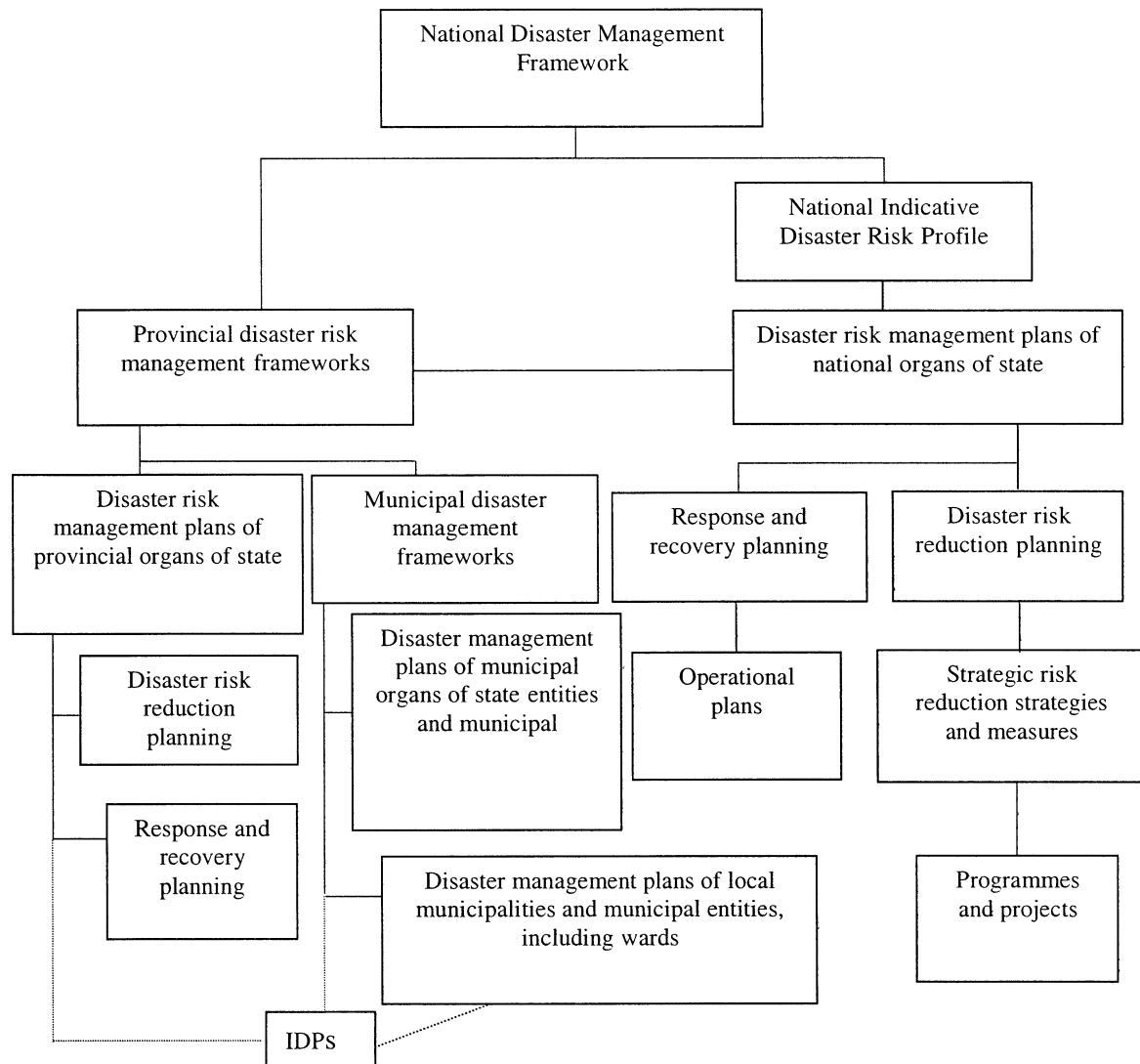


Figure 3.1: KPA 3: Disaster risk management planning and implementation



**Figure 3.2: National, provincial and municipal disaster management frameworks and disaster management plans across the spheres of government**

To address this wide range of disaster risk management planning capabilities, the national disaster management framework provides for a phased approach to disaster risk management planning and implementation. It comprises three progressive steps from a basic Level 1 Disaster Risk Management Plan to a detailed Level 3 disaster Risk Management Plan. The completion of each level of disaster risk management plan should provide information about vulnerabilities in communities and municipalities. This information should in turn be incorporated into integrated development planning processes and projects.

Guidelines specifying the requirements for each level of disaster risk management plan are available from the National Disaster Management Centre.

#### ***Level 1 Disaster Risk Management Plan***

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

#### ***Level 2 Disaster Risk Management Plan***

A Level 2 Disaster Risk Management Plan applies to provincial and municipal organs of state that have established institutional arrangements, and are building the essential supportive capabilities needed to carry out comprehensive disaster risk management activities. It includes establishing processes for a comprehensive disaster risk assessment, identifying and establishing formal consultative mechanisms for development of disaster risk reduction projects and introducing a supportive information system and emergency communications capabilities.

#### ***Level 3 Disaster Risk Management Plan***

A Level 3 Disaster Risk Management Plan applies to provincial and municipal organs of state that have established both the institutional arrangements for disaster risk management and the necessary supportive capabilities. The plan must specify clear institutional arrangements for coordinating and aligning the plan with other governmental initiatives and plans of institutional role players. It must also show evidence of informed disaster risk assessment and ongoing disaster risk monitoring capabilities as well as relevant developmental measures that reduce the vulnerability of disaster-prone areas, communities and households.

The national disaster management framework foresees that within two years of the commencement of the Disaster Management Act, provincial and municipal organs of state will have submitted to the National Disaster Management Centre, at a minimum, Level 1 Disaster Risk Management Plans. In the cases of Level 2 and 3 Disaster Risk Management Plans these should be submitted within three and four years, respectively.

Provincial and municipal organs of state must specify which one of the three specified disaster risk management planning levels is most appropriate based on their current capabilities, experience and functional responsibilities. They must also indicate the steps they are taking that will allow them to progress to more advanced levels of planning.

Disaster risk management plans developed by municipalities must be incorporated into the integrated development planning funding and implementation processes.

### **3.1.2 Integrating role of disaster management centres**

The provincial and municipal disaster management centres play important strategic roles in integrating disaster management frameworks, plans and actions between all spheres of government and other role players within a province.

To achieve integration across and between spheres:

- The Provincial Disaster Management Centre must:
  - ensure that the provincial disaster risk management framework is consistent with the national disaster management framework and the broader development goals, priorities, strategies and objectives specified for the province,
  - align the disaster risk management plans of provincial organs of state and those of their respective district and metropolitan municipalities and other role players, and
  - consult the Western Cape Disaster Management Advisory Forum (WCDMAF) with regard to the development of disaster risk management plans as well as guidelines.
- The municipal disaster management centres must:
  - ensure that municipal disaster management frameworks are consistent with the provincial framework of the Province of the Western Cape, as well as the priorities, strategies and objectives specified in municipal integrated development plans,
  - align municipal disaster risk management plans with those of other organs of state and other institutional role players, and
  - consult their municipal disaster management advisory forums (or, in the absence of an advisory forum, an appropriate alternative consultative forum in the municipality) with regard to the development of disaster risk management plans and guidelines.

### **3.1.3 Key performance indicators**

- Provincial and municipal disaster management frameworks that are consistent with the national disaster management framework have been submitted to the National Disaster Management Centre.
- Disaster risk management planning guidelines for the Province of the Western Cape, consistent with national guidelines, have been developed and disseminated by the Provincial Disaster Management Centre.
- Disaster Risk Management Plans, at the appropriate level, for the Province of the Western Cape and related municipalities have been submitted to the National Disaster Management Centre.
- Provincial and municipal disaster management frameworks and plans are revised at least two-yearly, as evidenced by annual reports submitted to the National Disaster Management Centre.

## **3.2 Setting priorities for disaster risk management planning**

Effective disaster risk management planning requires careful identification of priority disaster risks and the most vulnerable areas, communities and households to these risks. The process of identifying the disaster risks is critically informed by the disaster risk assessment findings obtaining by following the methods described in key performance area 2.



### 3.2.1 Identifying priorities to focus risk reduction planning

Disaster priority setting is informed by three important considerations:

- the expected magnitude for specific disaster types (also referred to as ‘impact’, ‘severity’ or ‘consequences’ of a disaster)
- the expected frequency of specific types of disaster (also referred to as ‘the probability’ or ‘likelihood’ of a disaster)
- the expected manageability of specific types of disaster at provincial and municipal levels (which refers to ‘how difficult’ it is to manage a disaster event, including the level of cross-sectoral management effort involved to reduce the risk).

### 3.2.2 Identifying provincial and municipal priority disaster risks

Disaster events are only relevant as a provincial disaster risk management planning priority when a disaster risk assessment and/or ongoing disaster risk monitoring processes indicate that:

- a specific disaster risk affects more than one municipality or district municipality or exceeds the capabilities of a single district municipality to manage it effectively
- a disaster risk results in the same type of disaster event occurring repeatedly and at different times in more than one municipality or district municipality with significant cumulative impacts on lives, property and the natural environment, and which is not necessarily classified as a provincial disaster.

In this context, provincial disaster risk management priorities must focus on averting or limiting the impact of the following disaster risks:

- Wide-area events that, due to their scale and magnitude, are likely to affect more than one district municipality. This includes extreme weather processes, such as severe droughts or riverine floods.
- Recurrent high- and medium-magnitude events that occur in most district municipalities and could require provincial support and/or intervention. These include veld, urban fringe or large informal settlement fires. They can also include destructive wind and rain storms and communicable disease outbreaks affecting people or livestock.
- Low-frequency/rare high-magnitude disaster risks with potential for severe loss and which require levels of specialist support possibly not available within a province. These include nuclear accidents, earthquakes, major transport disasters and maritime disasters such as severe oil spills.
- Disaster risks that affect neighbouring provinces and their municipalities and have consequences for the Province of the Western Cape.

In implementing the Disaster Management Act, all provincial organs of state must identify and prioritise those risks relevant to their respective functional areas.

### 3.2.3 Identifying the most vulnerable areas, communities and households

Not all areas, communities and households face the same disaster risks. Disaster risk management planning priority is explicitly placed on those areas, communities and households that are exposed to natural or other threats, and have the least capacity to resist and recover from the resulting impacts. These are called at-risk areas, communities or households.

### 3.2.4 Priorities for focusing disaster risk protection efforts

For disaster risk management planning purposes, all provincial and municipal organs of state must, according to their functional area or area of jurisdiction, give priority to protecting:

- strategic infrastructure or lifeline services whose damage or disruption in disaster events would result in serious and widespread consequences
- critical economic, commercial, agricultural and industrial zones or sites whose damage or disruption would have serious and widespread consequences
- fragile natural ecosystems and environmental assets that offer protective environmental services and which, if damaged or destroyed in a disaster event, would result in serious natural and economic losses
- communities in areas exposed to extreme weather and/or other natural and technological hazards and which are therefore likely to sustain serious human and property losses in the event of a disaster
- poor and under-served rural and urban communities, including informal settlements, especially those located in fragile ecological areas, that sustain repeated losses from recurrent small, medium, and large disaster events, and that lack insurance coverage to facilitate recovery
- highly vulnerable households in at-risk areas with limited capacity to resist or recover from external shocks, particularly child-headed households or those headed by the elderly or households affected by chronic illness.

Where possible, this process must take place in consultation with those most at risk.

### 3.2.5 Strategic planning: focus on disaster risk reduction

In keeping with the Disaster Management Act’s emphasis on vulnerability reduction and the use of international best practice in this regard, strategic planning must focus efforts on reducing disaster risks. This includes the identification of strategies and measures that lessen the likelihood of harmful losses by avoiding endangering hazards or reducing vulnerability, as well as those that increase capacity to prepare for and enable timely emergency response and recovery.

Disaster risk management involves a wide range of role players, especially since it requires both developmental efforts that reduce the risk of disasters as well as strengthened capabilities for preparedness, response and recovery. In this context, the disaster risk management plans of different provincial organs of state will necessarily differ in their emphasis on disaster risk reduction or on more operational emergency response issues, depending on their respective functional areas.

#### 3.2.5.1 Core disaster risk reduction principles of disaster prevention and mitigation

All disaster management plans must give explicit priority to the core principles of disaster prevention and mitigation. Internationally, disaster prevention, mitigation and preparedness are often referred to as risk reduction measures, because they lessen the likelihood of harmful losses by avoiding endangering hazards or reducing vulnerability. In this way, prevention and mitigation are central to achieving the goal of risk reduction, in which vulnerabilities and disaster risks are reduced and sustainable development opportunities strengthened.



### ***Disaster prevention***

Disaster prevention refers to actions that provide 'outright avoidance' of the adverse impact of hazards and related environmental, technological and biological disasters.

Many disasters can be prevented through effective land-use planning, basic public works and effective municipal services that factor in the frequency and severity of natural or other hazards as well as human actions. For example, careful positioning of storm-water drainage and its ongoing maintenance, along with protection of natural wetlands, to prevent destructive floods during heavy rain.

However, many small, medium and large disaster events cannot completely be prevented. Their severity can be reduced, however, through ongoing disaster mitigation efforts.

### ***Disaster mitigation***

Disaster mitigation refers to structural and non-structural measures that are undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards on vulnerable areas, communities and households. These efforts can target the hazard or threat itself (for example, the positioning of firebreaks on the urban/wildland interface). This is often referred to as 'structural mitigation', since it requires infrastructure or engineering measures to keep the hazard away from those at risk.

Disaster mitigation efforts can also target people who are at risk, by reducing their vulnerability to a specific threat (for instance, promoting community responsibility for controlling fire risk in an informal settlement). This is often called 'non-structural mitigation', as it promotes risk-avoidance behaviours and attitudes.

#### **3.2.5.2 Operations planning: preparedness, response and recovery**

Disaster risk management plans must also incorporate elements of preparedness, response and recovery appropriate to the respective functional areas of different organs of state.

### ***Preparedness***

Preparedness contributes to disaster risk reduction through measures taken in advance to ensure effective response to the impact of hazards, including timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

Preparedness enables organs of state and other institutions involved in disaster risk management, the private sector, communities and individuals to mobilise, organise, and provide relief measures to deal with an impending or current disaster, or the effects of a disaster.

Preparedness differs from prevention and mitigation, as it focuses on activities and measures taken in advance of a specific threat or disaster.

Examples preparedness actions include:

- planning for seasonal threats, such as heavy rainfall, flooding, strong winds, veld or informal settlement fires, and communicable disease outbreaks
- implementing a fire danger rating system for forecasting weather conditions conducive to the ignition and spread of veldfires
- anticipating and planning for the potential dangers associated with large concentrations of people at sporting, entertainment or other events
- establishing clear information dissemination processes to alert at-risk communities of an impending seasonal threat, such as flooding during the rainy season
- specifying evacuation procedures, routes and sites in advance of expected emergencies, including the evacuation of schools in areas exposed to flash-floods
- defining in advance clear communication processes and protocols for different emergency situations, including the dissemination of an early warning for an impending extreme weather threat to isolated or remote communities.

These actions are key components of the contingency plans that should be developed for specific threats as part of a provincial or municipal disaster risk management plan.

### ***Disaster response***

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

### ***Disaster recovery***

Disaster recovery (including rehabilitation and reconstruction) focuses on the decisions and actions taken after a disaster to restore lives and livelihoods, services, infrastructure and the natural environment. In addition, by developing and applying risk reduction measures at the same time, the likelihood of a repeated disaster event is reduced. Disaster recovery includes:

- rehabilitation of the affected areas, communities and households
- reconstruction of damaged and destroyed infrastructure
- recovery of losses sustained during the disaster event, combined with the development of increased resistance to future similar occurrences.

Disaster recovery initiatives present excellent opportunities to incorporate disaster risk reduction actions together with the affected communities and key stakeholders in order to reduce the likelihood of future loss.

#### **3.2.6 Key performance indicators**

- Specific provincial priority risks have been identified and mapped by the Provincial Disaster Management Centre, as evidenced in annual reports to the National Disaster Management Centre.
- Specific municipal priority risks have been identified and mapped by municipal disaster management centres, as evidenced in annual reports to the Provincial Disaster Management Centre.

- Specific priority areas, communities and households within provincial and municipal spheres have been identified and mapped, as evidenced in annual reports submitted by provincial and municipal disaster management centres to the National Disaster Management Centre.
- Focused initiatives to reduce priority risks have been identified by provincial organs of state, as evidenced in annual reports submitted to the National Disaster Management Centre.
- Disaster prevention and mitigation plans for priority risks in the Province of the Western Cape have been compiled.
- Preparedness, response and recovery plans for priority risks in the Province of the Western Cape have been compiled.

### **3.3 Scoping and development of disaster risk reduction plans, projects and programmes**

#### **3.3.1 Planning points for disaster risk reduction programmes and projects**

There are eight key planning points that must be applied and documented by all provincial organs of state and municipal entities when planning disaster risk reduction initiatives. These enhance the established principles and approaches detailed in existing guidelines for integrated development planning.

##### **3.3.1.1 Planning Point 1: Focus planning on the findings of disaster risk assessments**

Disaster risk reduction efforts must be informed by a reliable disaster risk assessments. This is essential for providing insights into the frequency, cyclic nature, severity and spatial extent of recurrent threats. It also provides detailed information on the social, environmental and economic vulnerability factors that increase losses.

##### **3.3.1.2 Planning Point 2: Establish an informed multidisciplinary team with capacity to address the disaster risk and identify a primary entity to facilitate the initiative**

Disaster risk reduction planning must be multidisciplinary and must draw on appropriate expertise. Disaster risk management not only requires technical expertise on hazard processes but also an understanding of the complex social and economic conditions that drive disaster risk in vulnerable communities.

##### **3.3.1.3 Planning Point 3: Involve the groups or communities at risk**

Disaster risk reduction planning must always involve constructive consultation between at-risk groups and/or communities and external service providers. Disaster risk reduction initiatives are more effective when they are discussed and implemented collaboratively with those affected, as this allows for the inclusion of local knowledge and expertise.

##### **3.3.1.4 Planning Point 4: Address multiple vulnerability wherever possible**

Disaster risk reduction is a value-adding capability, as it is aimed at reducing disaster losses in vulnerable areas and groups. It is therefore more effective to implement broadly defined disaster risk reduction initiatives that add value to development programmes than specific 'disaster management' projects.

Multiple vulnerabilities can be addressed by:

- improving socio-economic conditions and building community cohesion
- ensuring the continuity of protective environmental services
- increasing resilience and/or continuity of public services and infrastructure to better respond to expected external shocks.

##### **3.3.1.5 Planning Point 5: Plan for changing risk conditions and uncertainty**

Disaster risk is extremely dynamic and driven by many rapidly changing environmental and socio-economic conditions. This requires that plans are not only robust enough to manage anticipated and expected threats but also sufficiently adaptive to minimise the impacts of unexpected events or processes.

##### **3.3.1.6 Planning Point 6: Apply the precautionary principle to avoid inadvertently increasing risk**

Effective disaster risk reduction planning efforts must apply the precautionary principle of 'do no harm'. This is because well-intentioned disaster risk reduction projects can inadvertently increase disaster loss potential by reconfiguring and accelerating risk processes. The likelihood of negative consequences is reduced if a careful risk assessment actively informs the planning process, a competent multidisciplinary team is established, and mechanisms for transparent community consultation are put in place.

##### **3.3.1.7 Planning Point 7: Avoid unintended consequences that undermine risk-avoidance behaviour and ownership of disaster risk**

The disaster risk reduction planning process must anticipate and manage unintended consequences that increase disaster risk. Well-intentioned disaster risk reduction programmes that 'deliver' external services to at-risk communities and households can inadvertently reward risk-promoting behaviour and undermine existing capabilities. For example, the repeated distribution of relief for recurrent threats such as fire, floods and drought can discourage ownership of disaster risk by reinforcing the expectation of external support and transferring individual and/or household risk on to governmental and humanitarian assistance agencies.

##### **3.3.1.8 Planning Point 8: Establish clear goals and targets for disaster risk reduction initiatives, and link monitoring and evaluation criteria to initial disaster risk assessment findings**

Disaster risk reduction plans must define clear monitoring and evaluation criteria for measuring their effectiveness. These must be linked to initial disaster risk assessment findings to demonstrate the effectiveness of the specific initiative in reducing vulnerability or reducing disaster loss. Such findings must also be used to highlight learning points for incorporation into future programmes and projects.

#### **3.3.2 Research**

Disaster risk reduction initiatives must be preceded by research and careful planning and must provide evidence of the relevance or likely effectiveness of the planned intervention(s). The findings of such research must be shared with all stakeholders.

Robust research carried out as a prerequisite for any risk reduction intervention increases the likelihood of a successful programme. It also improves coordination across services and reduces the chance that resources will be ineffectively used in the long-term.

### 3.3.3 Monitoring effectiveness and disseminating results

Annual reporting requirements specified by the Disaster Management Act require that provincial and municipal disaster management centres must include documented accounts of planned and implemented disaster risk reduction programmes, projects and initiatives, including those aimed at reducing vulnerability and loss for defined priority disaster risks.

### 3.3.4 Key performance indicators

- Methodologies to monitor the effectiveness of disaster risk reduction initiatives have been developed through a consultative process facilitated by the Provincial Disaster Management Centre, and have been implemented.
- Documentation, which is accessible to key stakeholders, demonstrates the effectiveness of risk reduction measures for different disaster risk scenarios.
- Guidelines for incorporating disaster risk management programmes and initiatives into the activities of provincial organs of state and key institutional role players have been jointly developed and implemented.

## 3.4 Inclusion of disaster risk reduction efforts in strategic structures and processes

### 3.4.1 Integration of disaster risk reduction with spatial development planning

Disaster risk is driven by both hazard and vulnerability factors reflected in spatial development frameworks. In addition, disaster risk assessment findings, along with ongoing monitoring information on disaster occurrence, are directly applicable to spatial development planning. For this reason, the provincial and municipal disaster management centres must establish mechanisms in association with spatial planners in both spheres to ensure that relevant spatial information informs disaster risk reduction planning. They must also ensure that verified disaster risk information is incorporated into spatial development plans and supporting maps.

### 3.4.2 Integration of disaster risk reduction with strategic environmental assessments

The incorporation of disaster risk reduction issues into strategic environmental assessments (SEAs) is a way of proactively identifying and highlighting hazards and the disaster risks associated with these. By evaluating the opportunities and constraints that the environment places on development, SEAs complement Environmental Assessments which primarily evaluate the impact of development on the environment.

### 3.4.3 Incorporation of risk reduction planning into integrated development planning<sup>2</sup>

Disaster reduction efforts are medium- to long-term multisectoral efforts focused on vulnerability reduction and it is therefore more effective to incorporate them into ongoing integrated development planning (IDP) processes, programmes and projects. Effective and adaptive disaster risk reduction interventions in the municipal sphere are best planned and implemented as development initiatives through IDP mechanisms and phases (see Table 3.1).

In addition, provincial and municipal entities must also test and evaluate specific disaster risk reduction initiatives before these are undertaken. This provides for an assessment of the vulnerability reduction potential, appropriateness, cost-effectiveness and sustainability of previously untested disaster risk reduction strategies prior to a more widespread programme roll-out.

Focused pilot projects can be particularly useful when investigating ways to:

- add value to existing provincial or municipal programmes (for example, weather-proofing homes in low-income housing schemes planned for areas regularly exposed to extreme weather systems)
- protect a specific at-risk group (for example, establishing evacuation procedures for school children attending schools in areas repeatedly exposed to flooding)
- introduce a new initiative or project to address a specific risk scenario (for example, the introduction of small-scale rainwater harvesting initiatives in areas repeatedly exposed to drought)
- integrate disaster risk reduction with relief or recovery actions, to identify opportunities for changing the underlying drivers of risk as well as possible unintended consequences (for example, the spatial reconfiguration of informal settlements to provide access to fire-fighting equipment)
- investigate new approaches to promoting risk-avoidance attitudes and behaviour (for example, exploring a system of community or household incentives for 'well-managed' disaster risks rather than creating dependence on external relief).

**Table 3.1: Incorporation of disaster risk reduction planning into integrated development planning**

IDP phase	Emphasis for disaster risk reduction planning
Phase 1: Analysis	• Disaster risk identification, analysis and evaluation processes
Phase 2: Strategies	• Development of priority disaster risk reduction strategies, goals and objectives • Identification of specific projects and initiatives to reduce disaster risks • Establishment of a provisional financial framework for implementing disaster risk reduction projects
Phase 3: Projects	• Formulation of appropriate task teams for defined projects • Definition of project outputs, indicators, roles and responsibilities • Incorporation of sectoral planning requirements
Phase 4: Integration	• Harmonising disaster risk reduction projects with broader financial, policy and legal frameworks • Consultation with the IDP representative forum • Incorporation of projects into five-year financial plans, capital investment programmes and municipal action plans
Phase 5: Approval	• Provision of feedback by the municipal council on draft plans and projects and approval • Adoption of disaster risk reduction elements incorporated into the approved IDP
Phase 6: Monitoring and implementation	• Implementation of approved disaster risk reduction initiatives • Implementation of monitoring by IDP forum and municipal disaster management centres and feedback to municipal disaster management advisory forum or similar body

2. Based on Botha, J. *How to prepare a risk reduction plan: a municipal guide* (Draft) (Cape Town, AFRICON, March 2004).

### 3.4.4 Risk-avoidance enforcement mechanisms

Critical components of effective disaster risk reduction are regulations, standards, by-laws and other legal enforcement instruments that discourage risk-promoting behaviour and minimise the potential for loss. Provincial and municipal organs of state must assess the disaster risk management component of their existing policies, regulations, by-laws and other relevant legal instruments for their functional areas and introduce measures to ensure alignment with the requirements specified in the Disaster Management Act.

Within provincial and municipal spheres, this may involve:

- amendment of building regulations
- amendment of urban planning standards
- amendment of land-use regulations and zoning
- amendment of minimum standards for environmental impact assessments
- introduction of standards for 'risk-proofing' lifeline services and critical facilities from known priority risks
- effecting by-laws to implement extraordinary measures to prevent an escalation of a disaster or to minimise its effects.

### 3.4.5 Key performance indicators

- Mechanisms to disseminate experience gained from pilot and research projects that explore the vulnerability reduction potential, appropriateness, cost-effectiveness and sustainability of specific disaster risk reduction initiatives have been established.
- Risk-related information has been incorporated into spatial development frameworks, strategic environmental assessments and IDP's.
- Guidelines for incorporating disaster risk management programmes and initiatives into the activities of organs of state and key institutional role players have been consultatively developed and implemented.
- Regulations, standards, by-laws and other legal instruments that encourage risk-avoidance behaviour have been enforced by provincial and municipal organs of state and documented in annual reports to the provincial and national disaster management centres.

## 3.5 Implementation of disaster risk reduction programmes

### 3.5.1 Effective implementation of disaster risk reduction programmes

The eight planning requirements outlined in subsection 3.3.1 above must also be applied when implementing disaster risk reduction programmes and initiatives. The monitoring processes and evaluations for disaster risk reduction initiatives specifically targeted at at-risk communities must include both qualitative and quantitative vulnerability reduction outcomes.

In addition, projects should demonstrate close compliance with the goals, objectives, time frames and resource requirements identified in the planning process. Mechanisms must also be established to allow for project adaptation and adjustment for unforeseen conditions and opportunities.

### 3.5.2 Measurable reductions in small-, medium- and large-scale disaster losses

The Disaster Management Act specifies that provincial and municipal disaster management centres must incorporate in their respective annual reports, as well as in a disaster management information system, a report on disaster risk reduction initiatives undertaken. They are also required to report on disasters that occurred within their specific areas of jurisdiction. In this context, provincial and municipal disaster management centres must report on the frequency and severity of small-, medium- and large-scale disaster events, especially those in communities and areas identified as having a high risk through the disaster risk assessment processes. Significant changes in frequency and severity, type or location of occurrences must also be reported, including systematic accounts of recorded loss.

### 3.5.3 Reduced need for social relief in disaster-prone economically vulnerable communities

While effective social relief is an important component of disaster response and recovery, the Disaster Management Act explicitly gives priority to vulnerability reduction in disaster-prone areas, communities and households. Annual reports generated by the National Department of Social Development and its provincial counterparts must include an account of the number of households receiving social relief assistance. This information must be differentiated by location, date, disaster type and amount provided. An important benchmark for monitoring the effectiveness of disaster risk reduction initiatives in the most vulnerable communities will be changing demands for social relief assistance.

### 3.5.4 Generation and dissemination of case studies and best-practice guides in disaster risk reduction

The promotion of a 'culture of prevention' is practically enabled by access to examples of best practice in disaster risk reduction. In addition the Provincial Disaster Management Centre must develop its education, training and capacity-building strategy, and mechanisms for disseminating information on best practice in disaster risk reduction.

### 3.5.5 Progressive application of disaster risk reduction strategies, techniques and measures by provincial organs of state, municipalities and other key stakeholders

In consultation with other provincial and municipal organs of state and municipal entities, the Provincial Disaster Management Centre must develop monitoring indicators for tracking the application of disaster risk reduction strategies, techniques and measures in all spheres of government. These include indicators to track shifts in policies, planning and project implementation, generation of standards, regulations, by-laws and other risk-avoidance enforcement mechanisms.

### 3.5.6 Key performance indicators

- Disaster risk reduction programmes, projects and initiatives have been implemented by provincial and municipal organs of state and other key role players.
- Measurable reductions in small-, medium- and large-scale disaster losses have been recorded.
- A measurable reduction in social relief in disaster-prone economically vulnerable communities has been recorded.
- Appropriate case studies and best-practice guides in disaster risk reduction are generated, obtained and disseminated by the Provincial Disaster Management Centre.
- There is evidence of the progressive application of disaster risk reduction techniques and measures by provincial and municipal organs of state, as reported in annual reports submitted to the provincial and national disaster management centres.

### 3.6 Guidelines to be developed and disseminated

- Provincial guidelines specifying the requirements for Level 1 to Level 3 Disaster Risk Management Plans must be developed by provincial and municipal organs of state. Provincial guidelines compatible with national guidelines for uniform disaster management planning and implementation.
- Provincial guidelines compatible with national guidelines for the inclusion of disaster risk reduction programmes and initiatives in the activities of provincial and municipal organs of state and key institutional role players.

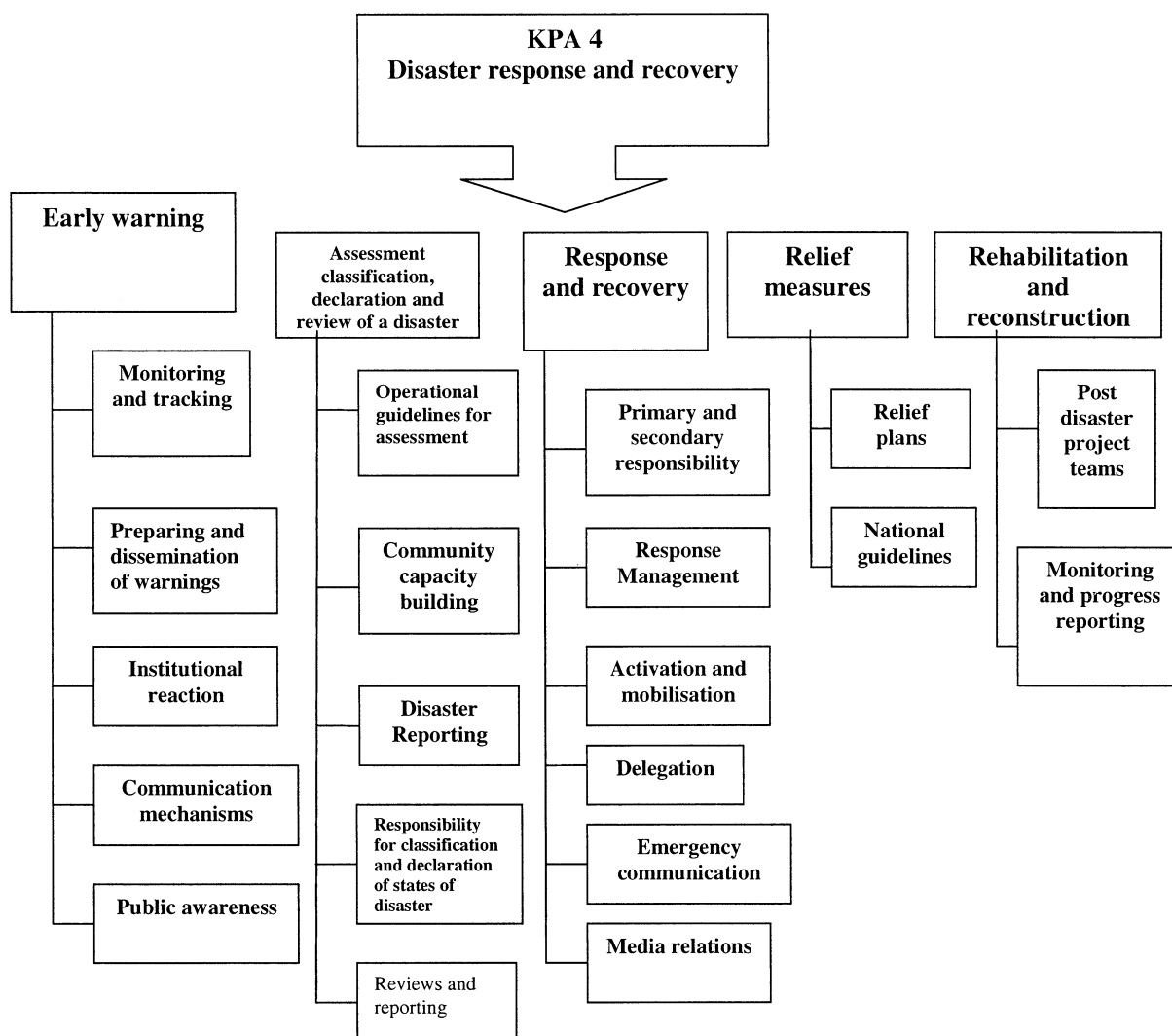
## Key performance area 4: Disaster response and recovery

### 4.1 Early warnings

#### 4.1.1 Objective

- To establish mechanisms to ensure the development and implementation of standardised early warnings.
- To implement a uniform approach to ensure the effective dissemination of early warnings to relevant role players and stakeholders.

Figure 5.1 below provides an overview of KPA 4.



#### 4.1.2 Responsibilities of the Western Cape Disaster Management Centre

The WCDMC is responsible for establishing the mechanisms and necessary technical capabilities to monitor and track significant events, multiple major or significant events occurring simultaneously and recurring incidents which could serve as early warnings of the need for extraordinary measures or of potential disasters. The WCDMC must ensure that organs of state that have been tasked with primary responsibility for a specific hazard implement a system of standard early warnings that is consistent with the system developed by national organs of state in terms of the NDMF.

The WCDMC must prepare and issue hazard warnings of provincial significance to the district disaster management centres via the mechanisms established for this purpose in a timely and effective manner. The centre must ensure that the mechanisms established provide for adequate communication facilities to ensure that early warnings are disseminated to communities known to be at risk, including those in remote/ isolated areas.

Warnings must include information and guidance that will enable those at risk to increase their safety and take measures to avoid risk and reduce losses.

The WCDMC must identify and facilitate the establishment of strategic intersectoral, multidisciplinary and multi-agency communication mechanisms in the province, including emergency communication in communities at risk, for the purposes of disseminating early warnings.

The WCDMC must facilitate and monitor the development of protocols to ensure the appropriate institutional reactions to early warnings. These must be consistent with those developed by the NDMC to govern reporting by essential and emergency services to municipal disaster management centres of significant events which occur or are threatening to occur in order to track developments so that timely and effective actions can be taken in the event of a situation deteriorating.

The early warning system must be supported by progressive public awareness and education initiatives facilitated by the WCDMC in partnership with the relevant organs of state, the Department of Education and the media.

The WCDMC must also identify links and mechanisms for the dissemination of early warnings through the media including television, radio, print and electronic media.

#### 4.1.3 Key performance indicators

- Effective mechanisms and technical capabilities have been established to monitor and track events for the purposes of identifying early warnings.
- Effective mechanisms have been established for the rapid dissemination of early warnings especially to communities known to be at risk.
- Protocols have been developed and implemented to ensure appropriate institutional reaction to early warnings.
- Protocols have been developed and implemented for reporting of events which could serve as indicators of a deteriorating situation.

### 4.2 Disaster assessment, disaster classification, declarations of states of disaster, reviews and reporting

#### 4.2.1 Objective

- To facilitate, coordinate and monitor the implementation of procedures to ensure rapid and effective initial needs and damage assessments during and immediately after significant events and disasters in accordance with the national guidelines.
- To facilitate and monitor the mobilisation of appropriate provincial resources and infrastructure for the purposes of immediate response and relief.
- To facilitate the development of mechanisms for the establishment of specialist assessment teams to conduct post-disaster assessments to ensure appropriate recovery, rehabilitation and reconstruction actions.

#### 4.2.2 Disaster assessment

The WCDMC must facilitate, guide and monitor the implementation of the national guidelines for disaster assessments by provincial organs of state and municipal disaster management centres. Disaster assessments must be conducted in accordance with the national guidelines. The WCDMC must establish mechanisms to ensure that information collected is in accordance with a standard format and that, in the case of a local disaster, it is transmitted rapidly and effectively to the relevant municipal disaster management centre. The relevant municipal disaster management centre must transmit the assessment to the WCDMC and the NDMC.

Disaster assessments must be guided by existing information and a clear understanding of:

- The hazard(s) that have led to the significant event or disaster
- The areas, communities, households, individuals, infrastructure and services that are particularly vulnerable to the hazards concerned

They should be informed by:

- past disaster risk assessments undertaken in the affected areas
- reviews/reports of past similar events
- information from entities such as the South African Weather Service, DWAF or other hazard and risk-tracking organizations that identifies areas at-risk
- knowledgeable local informants and resource people.

At a minimum, disaster assessments must:

- Identify/determine the areas, communities, households and individuals, most seriously affected and most at-risk, as well as critical infrastructure and lifeline services that have been damaged, disrupted or destroyed.
- Determine immediate response and relief priorities for search and rescue, evacuation, emergency shelter, food, medical care, water and sanitation, as well as emergency livelihoods support and protection.
- Determine local resources and capabilities available for immediate response and to minimise the severity of impacts, including human resources, facilities, and logistical, communications and organizational capabilities.
- Determine/identify possible/potential future risks both to those immediately affected, as well as other areas, communities, households, individuals, infrastructure and services to 'knock-on' or indirect impacts.



The WCDMC must promote awareness and facilitate capacity building in communities at risk to enable immediate, on-site assessments to be conducted in order to ensure rapid and appropriate responses.

The WCDMC must facilitate and monitor the preparation of operational guidelines for initial assessments by provincial organs of state tasked with primary responsibility for dealing with disasters as a result of a particular hazard. The guidelines must include provision for initial assessments in respect of the area affected and damage to critical infrastructure, and must be in accordance with those prepared by national organs of state with similar responsibilities.

Similarly, those agencies tasked with primary responsibility for the coordination and management of specific activities associated with disaster response, such as search and rescue, emergency medical services, fire fighting, evacuation, shelter, etc., must prepare operational guidelines for initial assessments of immediate needs of those affected. In order to ensure the application of joint standards of practice the guidelines must be consistent with those prepared by agencies with similar responsibilities in other provinces.

The WCDMC must facilitate and monitor the application of the national protocols relating to the inclusion of results of initial assessments in reports of significant events or events classified as disasters. The reports must show evidence that due consideration was given to the implications of sections 56 and 57 of the Disaster Management Act.

#### **4.2.3 Disaster classification and the declaration of states of disaster**

With the exception of a security-related event, the responsibility for the strategic coordination of responses to disasters occurring or threatening to occur and which can be classified as provincial disasters or declared provincial states of disaster rests with the head of the WCDMC.

In the event of a provincial disaster the HoC must make recommendations to any provincial organ of state or statutory functionary on whether a provincial state of disaster should be declared in terms of section 41 of the Disaster Management Act.

#### **4.2.4 Disaster reviews and reports**

In order to maximise the benefits of lessons learned, comprehensive reviews must be conducted routinely after all significant events and events classified as disasters. The findings of such reviews will directly influence the review and updating of disaster risk management plans in the province. Case studies developed from reviews also serve as useful training tools.

At a minimum, reviews of significant events as well as events classified as disasters must include the following:

- A clear description of the methods involved in undertaking the review, identification of members of the team involved and timing of the review relative to the event being studied.
- Description of the hazard processes that triggered the event, including spatial extent, intensity and timing
- Description of the institutional arrangements for response and relief, including warning and preparedness, as well as actual management of the event.
- Impact analysis, including direct and indirect human (ie injuries and deaths), social (displacement and illness, livelihoods disruptions) agricultural, infrastructural, and environmental impacts, service disruption, and economic loss information where applicable.
- Identification and description of existing risk reduction initiatives/programmes that minimized the event's impacts, where applicable.
- Description of recovery, reconstruction and rehabilitation measures undertaken, and their appropriateness for reducing future risks.
- Recommendations for strengthening risk reduction measures as well as arrangements for improved response to future events.

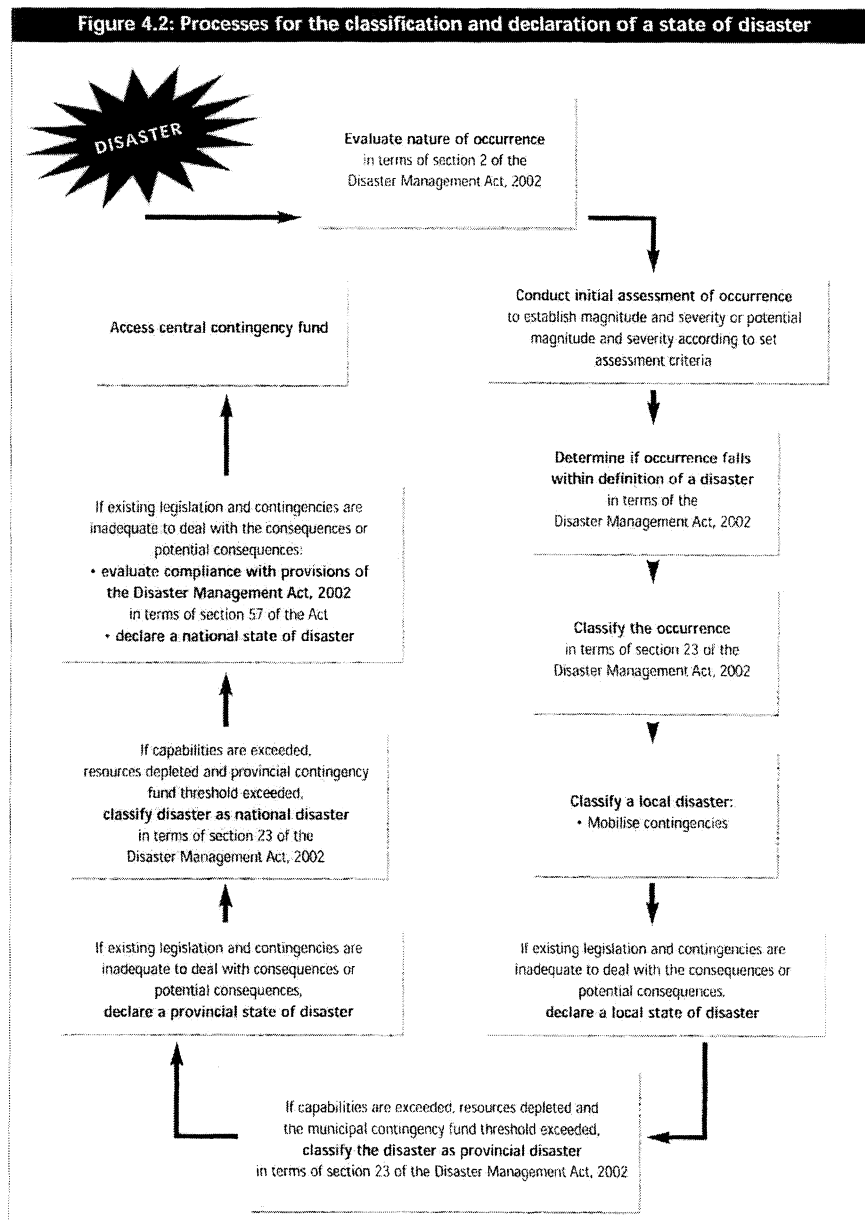
The Head, WCDMC, must be consulted prior to the undertaking of reviews of significant events or events classified as disasters within the Province. This is to ensure that such reviews add value to existing reports and to streamline efforts when more than one provincial or municipal entity is involved.

The WCPDRMC must assist the NDMC and municipal disaster management centres with the development of a review programme and must ensure that the programme is applied diligently in the province.

#### **4.2.5 Key performance indicators**

- Mechanisms for conducting disaster assessments in accordance with national guidelines have been established.
- Communities at risk of disasters are able to conduct on-site initial assessments when significant events or disasters affect them or threaten to affect them.
- Mechanisms are in place to enable communities to transmit initial assessments in terms of damage and needs to the relevant disaster management centre.
- Mechanisms for conducting post disaster reviews and the preparation and submission of review reports in accordance with the national disaster review programme have been developed and implemented
- Review reports on significant events and trends are routinely submitted to the NDMC and disseminated to stakeholders.





### **4.3 Integrated response and recovery**

#### **4.3.1 Objective**

To ensure integrated response and recovery when significant events or disasters occur or threaten to occur in the province.

##### **4.3.1.1 Responsibilities for response and recovery**

The WCDMC, through the PDMSC and the WCDMAF, must establish mechanisms to facilitate, guide, coordinate and monitor the development of integrated response and recovery plans for the province as a whole, including:

- the allocation of responsibilities for the development of contingency plans for specific known hazards to specific organs of state
- the allocation of responsibilities for responding to slow-onset events
- the identification and allocation of responsibilities to those organs of state and other key role players assuming secondary roles for specific known hazards
- the identification and allocation of primary responsibilities to specific response and resource agencies for each of the various activities associated with disaster response and recovery efforts such as evacuation, search and rescue, fire fighting, emergency medical services, shelter and humanitarian relief
- the identification of those agencies assuming secondary and supporting roles in response and recovery activities
- the development of field operation guides for the various activities associated with disaster response and recovery efforts
- the allocation of responsibility for the coordination of joint efforts at the operational, tactical and strategic levels of response and recovery efforts
- the effective implementation of the national response management system
- the development of mechanisms and procedures for the identification of trigger indicators and for reporting these to the disaster management centres in the various spheres
- the inclusion of mechanisms for the activation and mobilisation of resources, including the deployment of volunteers,

#### **4.3.2 Activation and mobilisation**

The WCDMC must prepare operational plans setting out the procedures to be followed for the activation and mobilisation of resources and infrastructure in the event of a disaster classified as provincial disaster occurring or threatening to occur. Such plans must include standard protocols for convening of the provincial disaster operations centre for the purposes of strategic coordination and management of the response and recovery efforts.

#### **4.3.3 Delegation of responsibilities**

Response and recovery plans must make provision for the delegation of the responsibilities of the HoC as provided for in subsection 1.2.4.2 above. It must also include alternate arrangements for a disaster management centre as a contingency in the event that the WCDMC itself is affected to such an extent that it is unable to operate effectively.

#### **4.3.4 Emergency communication**

The WCDMC must identify alternate emergency communication arrangements as a contingency in the event that existing communication systems are out of order.

#### **4.3.5 Media relations**

The WCDMC must facilitate the development of a provincial policy and protocols for media liaison, including press releases and media interviews, in the event of a provincial disaster occurring or threatening to occur.

#### **4.3.6 Key performance indicators**

- Role players and stakeholders bearing primary and secondary responsibility for response and recovery plans and activities have been identified and responsibilities have been allocated.
- Contingency plans for known hazards have been developed.
- Response and recovery plans are reviewed and updated annually.
- Field operation guides have been developed for the various response and recovery activities.
- The national standard incident management system is implemented and operating effectively.

### **4.4 Relief measures**

#### **4.4.1 Objective**

To ensure that relief operations during and following significant events and disasters conform to the national regulations.

The WCDMC must facilitate, coordinate and monitor the development of plans for relief measures and must ensure that such plans are consistent with the national regulations.

#### **4.4.2 Key performance indicators**

- Plans for relief measures are developed and are in accordance with the national regulations.
- Relief operations are progressively monitored and plans are reviewed annually in accordance with lessons learnt.

### **4.5 Rehabilitation and reconstruction**

#### **4.5.1 Objective**

To ensure that rehabilitation and reconstruction actions focus on a holistic, developmental approach, which is integrated and coordinated.

#### 4.5.2 Responsibilities for rehabilitation and reconstruction

The organ of state tasked with primary responsibility for a known hazard must facilitate the establishment of a specific project team or teams for the purposes of ensuring the implementation of integrated, holistic and developmentally focused measures and projects. The convenor of the project team must ensure that terms of reference and key performance indicators are determined for each project. The convenor of the project team must also ensure that regular reports on progress are submitted to the WCDMC, as well as to the PDMSC and the WCDMAF (see subsection 1.2.7.3 above).

#### 4.5.3 Key performance indicators

- Post-disaster project teams for rehabilitation and reconstruction have been established and operate effectively.
- Mechanisms for the monitoring of post-disaster rehabilitation and reconstruction projects and for the submission of progress reports to the WCDMC have been established.

#### Enabler 1: Information management and communication

##### Objective

Guide the development of a comprehensive information management and communication system in the Province of the Western Cape and establish integrated communication links with all disaster risk management role players.

##### Introduction

Disaster risk management in the Province of the Western Cape is a collaborative process that involves all spheres of government, NGOs, the private sector, a wide range of capacity-building partners and communities. It requires capabilities to manage risks on an ongoing basis, and to effectively *anticipate, prepare for and respond to and monitor* the weather-related, fire and other hazards that occur recurrently in the province. Integrated disaster risk management depends on access to reliable hazard and disaster risk information as well as effective information management and communication systems to enable the receipt, informed interpretation, dissemination and exchange of information.

It requires systems and processes in the Province of the Western Cape that are consistent with and support the NDMC's information management efforts and will:

- provide an institutional resource database, including a reporting and performance measurement facility
- facilitate information exchange between primary interest groups
- facilitate risk analysis, disaster risk assessment, mapping, monitoring and tracking
- guide and inform focused risk management and development planning and decision making
- facilitate timely dissemination of early warnings, public awareness and preparedness, especially for at-risk people, households, communities, areas and developments
- enable timely and appropriate decision making to ensure rapid and effective response and recovery operations
- facilitate integrated and co-ordinated multi-agency response management
- record and track real-time disaster response and recovery information
- facilitate education, training and research in disaster risk management
- facilitate funding and financial management for the purpose of disaster risk management.

This enabler describes the requirements for an effective *provincial disaster management information and communications capability* that assists and supports the NDMC as well as disaster management role players in the Province of the Western Cape. It comprises both a disaster management information management system (DMIMS) as well as communications capabilities to support both risk reduction actions as well as emergency response.

The *provincial disaster management information and communications capability* aims at providing a seamless and interlinked platform for the flow of information. This is essential for informing provincial risk management planning as well as the activation and management of emergency response. Specifically, an effective disaster management information management system must have capabilities to manage a diverse range of institutional, hazard and vulnerability information to support decision-making by primary interest groups. This requires skilled personnel capable of interpreting the complex hazard, vulnerability and other risk data and trends in a province with a particularly dynamic disaster risk profile.

##### Outline

Section 5.1 outlines the integrated information management and communication model for disaster risk management presented in the NDMF. It also provides a representation of the core components that comprise the Province of the Western Cape DRM Information and Communications Centre.

Section 5.2 introduces the basic requirements of an integrated DRM information management and communication system. It also includes processes for streamlining DRM information/communication actions in the Province of the Western Cape with those initiated by the NDMC.

Section 5.3 describes the key components of the Institutional Support and Resource database

Section 5.4 focuses specifically on the establishment and role of the Provincial Disaster Management Information Management Information System.

Section 5.5 describes the key components of the Provincial Communications Centre

Section 5.6 focuses on Public Awareness/Education Support capability intended to promote greater public and individual responsibility for DRM in the province

Section 5.7 describes the critical information and communications support requirements necessary for the implementation of this KPA in the Province of the Western Cape.

#### 5.1 Integrated information management and communication model

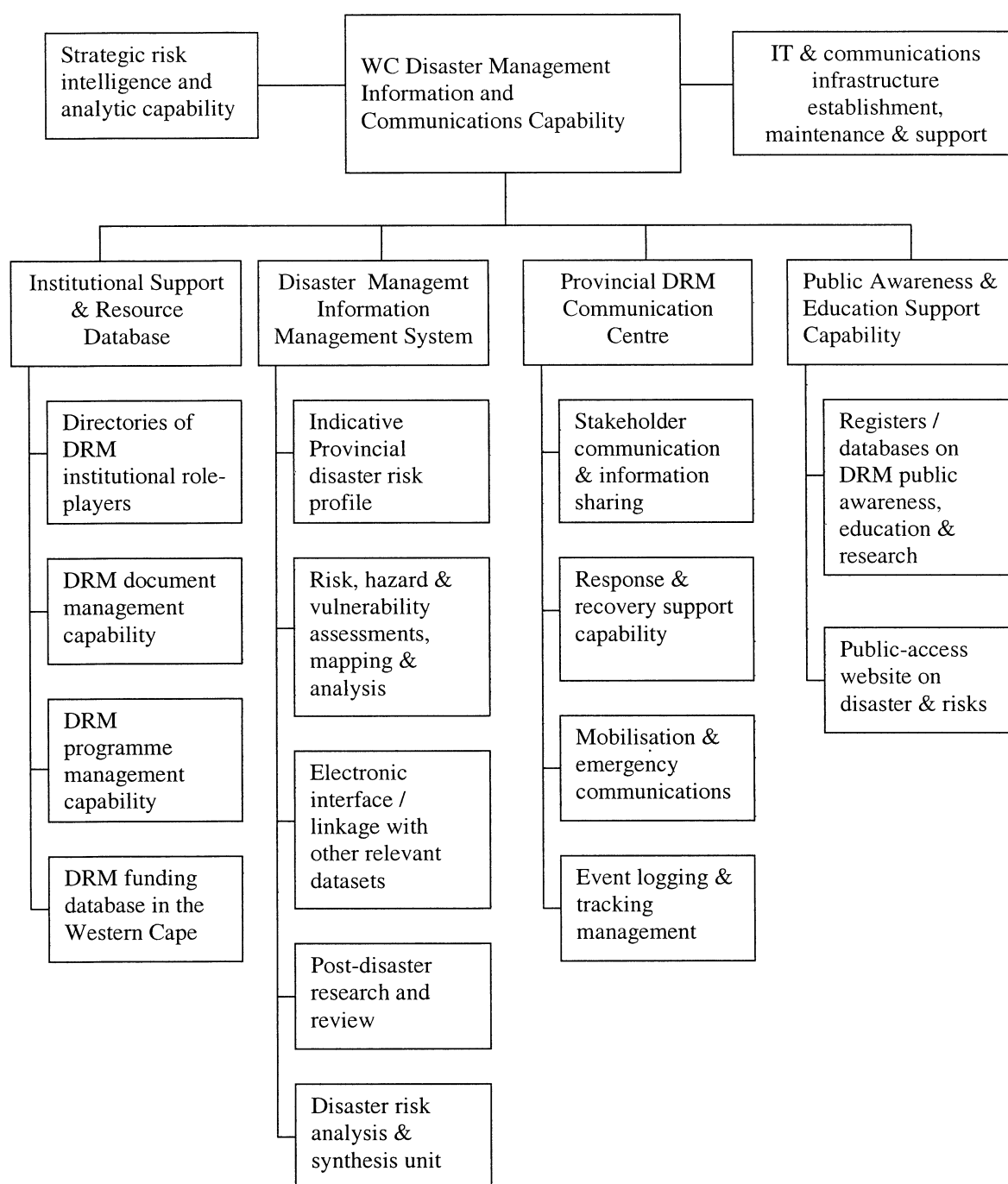
The NDMF calls for the establishment of an integrated information management and communication system to achieve the objectives of the KPAs and enablers outlined in the national disaster management framework. Such a system must provide:

- Support for KPAs
  - institutional capacity
  - disaster risk assessment
  - disaster risk reduction
  - response and recovery.

- Support for the enablers
  - education, training and research
  - funding.
- Additional functionalities
- Integrated disaster risk management database and information management

In order to ensure consistency with the NDMF, the WCDMF requires that the following core functionalities are established and implemented by the *provincial disaster management and communication capability*

- Institutional support and resource data base
- Disaster management information management system
- Provincial DM Communications Centre
- Public awareness and education support capability
- DRM information and communications support capability



**Figure 5.1 Enabler 1: Information management and communication**

Table 5.1 Core DRM Information and Communications Capabilities

Core Capabilities	There must be specific capability to:
<b>Institutional support and resource data base</b>	<ol style="list-style-type: none"> <li>1. Develop/maintain a directory of the names/contact details and roles and responsibilities of all key role players in relevant national provincial and municipal organs of state involved in DRM.</li> <li>2. Record/regularly update a directory of the names/contact details and roles/responsibilities of all key role players in the WCICDM.</li> <li>3. Record/regularly update the names/contact details and roles and responsibilities of all members of the WCDMAF and similar municipal forums and mechanisms for accessing emergency resources under their control. Maintain comprehensive records of units of volunteers, including skill levels and capabilities, must be maintained.</li> <li>4. Establish/maintain a directory of the names of community participation structures and the contact details of the participants.</li> <li>5. Disseminate a record of decisions and recommendations made by the WCICDM and the WCDMAF to all role players affected by the decisions.</li> <li>6. Establish/maintain an accurate record-keeping system, incorporating disaster risk management, disaster risk reduction and contingency plans, plans for specific projects, minutes, reports, memoranda and correspondence.</li> <li>7. Record/update memoranda of understanding, mutual assistance agreements and bilateral and multilateral agreements in the Province of the Western Cape.</li> <li>8. Establish/maintain an accurate record-keeping system, incorporating disaster risk management, disaster risk reduction and contingency plans, plans for specific projects, minutes, reports, memoranda and correspondence.</li> <li>9. Generate/update provincial risk reduction and contingency plans</li> <li>10. Facilitate inclusion/tracking of risk reduction initiatives into IDPs</li> <li>11. Co-ordinate response measures in the case of significant events and disasters.</li> <li>12. Keep a record of performance measurement and monitoring of disaster management centres and primary entities tasked with DRM responsibilities.</li> <li>13. Implement a database for DRM funding arrangements for the Province of the Western Cape.</li> </ol>
<b>Disaster management management information system</b>	<ol style="list-style-type: none"> <li>1. Generate/update an indicative provincial disaster risk assessment, including generation of GIS-based risk maps</li> <li>2. Incorporate/update relevant vulnerability and hazard information, especially for priority disaster risks in the Province of the Western Cape.</li> <li>3. Provide electronic interface/links with other information systems relevant to DRM in the Province of the Western Cape.</li> <li>4. Incorporate post-disaster research and review within the Province of the Western Cape.</li> </ol>
<b>Provincial Communications Centre</b>	<ol style="list-style-type: none"> <li>1. Facilitate stake-holder communication and information-sharing</li> <li>2. Facilitate management of response and recovery in the Province of the Western Cape</li> <li>3. Establish/operate a central communications centre, with a central 24-hour communications facility for reporting purposes as well as for managing the dissemination of early warnings.</li> <li>4. Facilitate mobilization and emergency communication, including a reflexive facility for confirming or acknowledging receipt of early warnings.</li> <li>5. Enable event logging and tracking</li> </ol>
<b>Public Awareness and Education Support Capability</b>	<ol style="list-style-type: none"> <li>1. Record DRM-related education/training programmes in the Province of the Western Cape, their content and names of participants.</li> <li>2. Record provincially relevant DRM research programmes/projects</li> <li>3. Facilitate an integrated provincial DRM awareness/education programme, including public access website</li> </ol>
<b>DRM information &amp; communications support capability</b>	<ol style="list-style-type: none"> <li>1. Ensure competent IT maintenance and support</li> <li>2. Ensure competent communications support</li> <li>3. Provide strategic risk intelligence and analysis</li> </ol>

## 5.2 Establishing a disaster management and communications capability

### 5.2.1 Requirements of the national DRM information management and communication system

Sections 16 and 17 of the Disaster Management Act envisage an integrated and uniform system that provides for information exchange between all the relevant interest groups in all three spheres of government, in communities and in the private sector through a variety of communication mechanisms and media. The system must provide for the receipt, storage, analysis and dissemination of information.

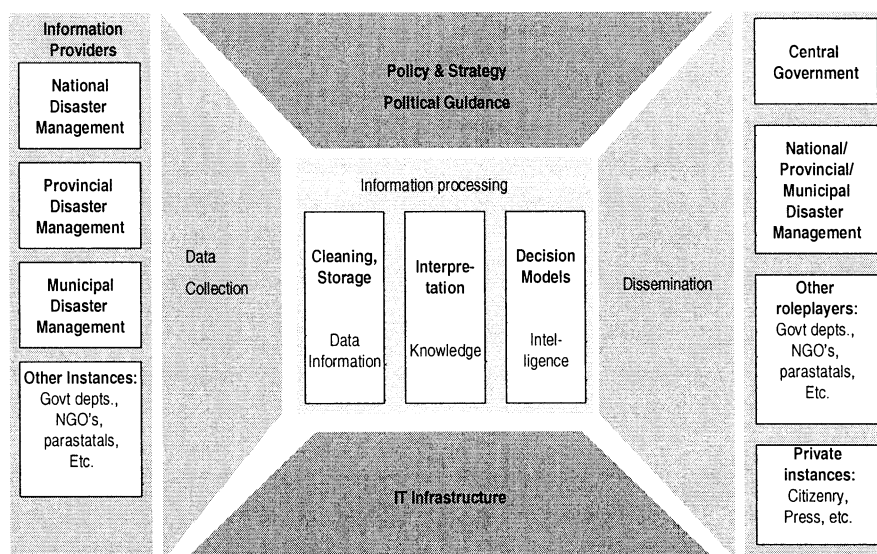
In addition, the NDMF specifies that the information management and communication system must include the establishment of communication links, which will enable the receipt, transmission and dissemination of information between disaster management centres and those likely to be affected by disaster risks as well as other role players and stakeholders involved in disaster risk management. In this regard, the design of the national system as well as those at in the provincial and municipal spheres must take into account the lack of technological infrastructure in areas and communities most at risk, as well as telephonic system failures during disasters. This will require the use of a dedicated two-way national emergency radio communication network.

The NDMC serves as an information clearing house for disaster risk management. In this it is supported by provincial and municipal disaster management centres, which must assist the NDMC with the development and maintenance of information management and communication systems relevant to their areas of responsibility. Provincial and municipal systems must be compatible with the national system and must conform to the requirements of the NDMC.

### 5.2.2 Aligning of the WC disaster management information and communications capability with National requirements

Section 32 of the Disaster Management Act requires provincial disaster management centres to assist the NDMC with regard to communication links and information management systems. Similarly, section 46 requires municipal disaster management systems to do the same. The relationships envisaged between the components of the **Provincial** disaster management information and communications capability are reflected both vertically across the three spheres and transversally between key role players in Figure 5.2





**Figure 5.2: Information processing links across the different spheres and groups of role players**

#### 5.2.2.1 Aligning existing information and communication systems between the WC DMC and the NDMC

In order to ensure that the WCDMC is able to assist the NDMC with regard to disaster risk-related communication and information, the following actions must be taken:

- The Head of the WCDMC must assess existing DRM-related information and communications systems in operation in the Province of the Western Cape to determine the degree to which they support the capabilities set out in Table 5.1. and in the NDMF.
- The Head of the WCDMC must consult with the NDMC to establish the degree to which these systems are consistent with those developed or under development by the NDMC
- The Head of the WCDMC must consult with the NDMC and relevant organisations in the Province of the Western Cape to develop a plan that aligns the Province's DRM Information and Communications systems with those at the NDMC. This may include:—
  - Further development of existing systems in the Province of the Western Cape to ensure their consistency with those developed or under development by the NDMC
  - Use and application of DRM Information and Communications systems developed or under development by the NDMC—
  - Development of new systems/applications in the Province of the Western Cape that are consistent with those developed or under development by the NDMC.

#### 5.2.2.2 Aligning specialised system functionalities

The NDMF calls for specialised system functionalities for use across all spheres of government. These include a document management system, resource and capacity database, modelling and simulations functionality, a project management and quality management systems along with a monitoring and evaluation system. The Head, WCDMC must consult with the NDMC to ensure any specialised system functionalities in existing systems planned or in operation in the Province of the Western Cape are consistent with those developed or under development by the NDMC.

#### 5.2.2.3 Aligning information dissemination and display systems

Similarly, the NDMF calls for an effective information dissemination and display system to be developed consultatively with PDMCs and MDMCs. In this context, The Head, WCDMC must consult with the NDMC to ensure any information dissemination and display systems in operation in the Province of the Western Cape are consistent with those developed or under development by the NDMC.

#### 5.2.3 Key performance indicators

- Development of a provincial DRM information and communications implementation plan that aligns efforts in the Province of the Western Cape with initiatives planned or undertaken by the NDMC.

### 5.3 DRM Institutional Support and Resource Database

In executing its role in assisting the NDMC, the WCDMC must develop and maintain a DRM institutional support and resource database that comprises:

- Directories of DRM institutional role-players and volunteers
- DRM document management capability
- DRM programme and project management tool
- DRM funding database in the Province of the Western Cape



### 5.3.1 Directories of institutional role players

The WCDMC must develop and maintain directories of institutional role players involved in disaster management in the Province of the Western Cape. They must include those in relevant national, provincial and municipal organs of state, members of the WCICDM and WCDMAF, members of project planning teams, units of volunteers and community participation structures.

The WCDMC is also required to provide the following information in its directories:

- NGOs involved in disaster management in the Province of the Western Cape
- disaster management experts in the Province of the Western Cape
- private sector voluntary organisations involved in disaster management within the Province of the Western Cape
- research and training facilities for disaster management disciplines
- emergency preparedness and response resources and capacity in the provincial and local spheres of government and in the NGO sector.
- foreign NGOs and international organisations involved in disaster management in the Province of the Western Cape.

This must show:

- names, telephone and fax numbers, postal/electronic addresses
- nature of involvement in disaster risk management
- nature, capacity and location of emergency and relief services under their control.

### 5.3.2 DRM document management capability

The institutional support and resource database must also have a document management capability consistent with that developed by the NDMC that allows for:

- The dissemination of recorded decisions and recommendations made by the WCICDM and the WCDMAF to all role players affected by the decisions.
- Recording/updating of memoranda of understanding, mutual assistance agreements and bilateral and multilateral agreements in the Province of the Western Cape.
- A record-keeping system, incorporating disaster risk management, disaster risk reduction and contingency plans, plans for specific projects, minutes, reports, memoranda and correspondence.
- The updating of provincial risk reduction and contingency plans
- Inclusion/tracking of risk reduction initiatives into IDPs
- The recording of performance measurement and monitoring of disaster management centres and primary entities tasked with DRM responsibilities.

### 5.3.3 DRM programme and project management tool

The institutional support and resource database must also have a DRM programme and project management tool that generates/updates provincial risk reduction and contingency plans and facilitates inclusion/tracking of risk reduction initiatives into IDPs within the province. This tool should be consistent with that developed or planned by the NDMC.

### 5.3.4 DRM funding data-base in the Province of the Western Cape

The institutional support and resource database must also have a data-base for DRM funding arrangements relevant to the Province of the Western Cape consistent with that developed by the NDMC

### 5.3.5 Key performance indicators

- The Provincial disaster management information management system has been established and supports the key performance areas and enablers outlined in both the NDMF and the disaster management framework of the Province of the Western Cape.
- The DRM Institutional Support and Resource Database has been established and is consistent with that developed by the NDMC

## 5.4 Disaster Management Information Management System

The Disaster Management Information Management System component comprises five key elements. These include:

- The generation/updating of an indicative provincial disaster risk assessment, including GIS-based risk maps
- Capability to incorporate/update relevant vulnerability and hazard information, especially for priority disaster risks in the Province of the Western Cape
- Electronic interface/linkage with other relevant datasets/information systems
- Post-disaster research and review
- Synthesis capability for decision making.

### 5.4.1 Indicative provincial disaster risk assessment

In accordance with actions described in KPA 2, the WCDMC must determine the province's priority disaster risks. The disaster risk information management system must facilitate this by consolidating critical information related to disaster risk in the province. Information priorities that should inform the indicative provincial risk assessment include:

- phenomena, occurrences, activities and circumstances that cause or aggravate disasters in the Province of the Western Cape
- risk factors underlying disasters, and ways and means to reduce such risks
- areas and communities in the Province of the Western Cape that are particularly vulnerable to disasters
- information on each event classified as a 'disaster' in section 23 of the Disaster Management Act.
- small and medium-size events that result in disaster loss in the Province of the Western Cape but which are not classified as 'disasters' in terms of the Act

- indigenous knowledge relating to disaster management in the Province of the Western Cape
- prevention and mitigation measures that are relevant to the Province of the Western Cape
- early warning systems that are appropriate and robust for application in the Province of the Western Cape.

The process of auditing existing information must be inclusive. The WCDMC must contact specialist research units, private sector partners and government departments for relevant scientific reports on hazard and vulnerability patterns. It must also consult with NGOs and CBOs as well as traditional authorities on historic and changing patterns of risk.

The indicative disaster risk assessment may generate information on multiple risks. The WCDMC must consultatively establish priority provincial risks for subsequent risk reduction planning and action (see KPAs 2 and 3).

#### **5.4.2 Risk, hazard and vulnerability assessments, mapping and analysis**

As outlined in KPA 2, risk assessment forms the basis for risk reduction and contingency planning. In this context, the WCDMC must:

- audit and consolidate existing information on priority hazards, risks and vulnerabilities
- where possible, represent this electronically
- identify key gaps in national hazard/vulnerability/risk assessment information and commission appropriate research in these areas
- update provincial risk and vulnerability assessment information at least every 2—5 years
- make appropriate hazard, vulnerability and risk information available on a public-access website.

##### **5.4.2.1 The role of geographic information systems and interface with spatial development frameworks**

Geographic information systems (GIS) represent a powerful tool for spatially representing hazard, vulnerability and consolidated risk information. The WCDMC must, however, ensure that the information represented in GIS format is scientifically validated and sufficiently robust for national planning purposes.

Once the mapping of the disaster risk assessments for specific areas has been completed, this must be uploaded to the Spatial Development Framework (SDF).

#### **5.4.3 Electronic interface/linkage with other relevant datasets/information systems**

Considerable information relevant to disaster risk processes already resides in existing databases accessible to the NDMC and national departments as well as those within the Province of the Western Cape. This includes information and expertise in the Departments of Health, Water Affairs and Forestry, Agriculture and Land Affairs, the South African Weather Service, the Water Research Commission, the Agricultural and Human Sciences Research Councils, the Council for Geoscience, the CSIR and university research units.

The WCDMC must also have capacity to interface with the NDMC as well as specialist government and NGO partners responsible for monitoring specific risks, including severe weather, fire, coastal threats, drought and epidemics. This is to ensure consistency in risk information for interdepartmental planning as well as the nature of messages disseminated to the public.

Where such risk related databases already exist, the WCDMC should give priority to electronically interfacing with these, rather than duplicating existing efforts. In keeping with legal requirements to reduce disaster vulnerability, existing risk-related databases located in government departments should add value to and technically support the provincial centre's efforts in risk and vulnerability assessment.

#### **5.4.4 Post-disaster research and review**

Important information on disaster trends, patterns and loss and areas at risk is learned after each significant disaster event. In this context, the WCDMC must ensure that information on hazard intensities, vulnerability conditions and loss patterns is collected and consolidated following events of provincial significance. This is critical for updating existing risk assessment information, and to inform risk reduction efforts as well as strengthen response capability.

#### **5.4.5 Disaster Risk Analysis and Synthesis Unit**

##### **5.4.5.1 Cross-sectoral analytic and synthesis capacity**

The collection and consolidation of risk and vulnerability data alone, nor the undertaking of post-disaster reviews, do not automatically ensure a robust disaster risk information system. The WCDMC's disaster risk information management team must be able to synthesise biophysical data with relevant socio-economic and environmental information across the province from a disaster risk perspective.

##### **5.4.5.2 Identification and interpretation of warning information**

In addition, the disaster risk information management team must work towards building the capacity to be able to interpret warning information, especially that generated by the South African Weather Service to practically inform preparedness decisions in at-risk municipalities. The capability to identify warning information must also extend to the recognition of rapidly increasing disaster vulnerability from socio-economic and demographic indicators including, for instance, the rate of densification in informal settlements, in order that appropriate risk reduction interventions can be undertaken timeously.

##### **5.4.5.3 Identification of disaster risk indicators and levels of risk**

Among the capabilities required in interpreting provincial disaster risk information is the capacity to identify sensitive and reliable indicators of changing disaster risk patterns for priority threats (including extreme weather events, riverine and urban floods, urban fringe and informal settlement fires). This capability facilitates the monitoring of priority risks, including the activation of warning systems.

##### **5.4.5.4 Trend analysis**

Specifically, the team must have sufficient capability to identify important trends related to natural and human-induced hazards, as well as those that reflect rising disaster vulnerability. At a minimum, it must produce a consolidated report annually that reflects hazard occurrences, vulnerability patterns

and disaster loss information for priority disaster risks. This must differentiate risk patterns by district municipality and include an analysis of relevant seasonal patterns.

#### **5.4.6 Key performance indicators**

- Mechanisms have been established for completing/updating the provincial indicative disaster risk assessment and for interfacing this information with other relevant databases and information systems, including the Spatial Development Framework.
- Mechanisms have been established and implemented within the province for post-disaster review and research.
- Skilled capability to analyse and synthesise disaster risk information has been established in the WCDMC.
- Annual consolidated reports are generated by the WCDMC that reflect hazard occurrences, vulnerability patterns and disaster loss information for priority disaster risks, further differentiated by district municipality and season.
- The Disaster Risk Management Information System of the Province of the Western Cape supports stakeholder needs within the Province of the Western Cape as well as those within the national sphere.

### **5.5 Provincial Communications Centre**

The Provincial Communications Centre must develop and establish integrated communication links between all disaster management role players within the Province of the Western Cape, as well as with the NDMC and other provincial disaster management centres. In this context, it must:

- Facilitate coordination and information sharing among key DRM stake-holders in the Province of the Western Cape as well as with the NDMC.
- Facilitate management and coordination of response and recovery in the Province of the Western Cape in the case of significant events and disasters
- Establish/operate a central communications centre, with a central 24-hour communications facility for reporting purposes as well as for managing the dissemination of early warnings.
- Facilitate mobilization and emergency communication, including a reflexive facility for confirming or acknowledging receipt of early warnings.
- Enable event logging and tracking

#### **5.5.1 Minimum communications requirements**

The WCDMC must ensure that its provincial emergency communication system is compatible with emergency communication systems used nationally. This is to enable communication between essential and emergency services for the purposes of incident command and the management of joint operations.

The provincial communication system that is developed and implemented should comprise, at a minimum:

- A directory of role players as provided for in sections 16 and 32 of the Disaster Management Act (see section 5.3 above)
- An integrated and compatible communication system with the following features:
  - Automated dialing and/or message delivery to communicate with designated small or large groups of people, including community members, volunteers and response teams.
  - The ability to communicate via all available communication media like standard landline telephones and cellular telephones connected to all available networks, as well as telephony-enabled radio systems. The system should be capable of sending messages to pagers (alpha and digital), e-mail and fax. All details of all calls should be logged and reports generated from this information.
- A personal communication system that includes communications to support advisory forums, planning processes and response and recovery operations in the national, provincial and municipal spheres.

#### **5.5.2 Stake-holder communication and information-sharing**

DRM communication systems and networks within the Province of the Western Cape should include personal communication systems that support advisory forums, planning processes and response and recovery operations. They must also make provision for the ongoing identification and engagement of innovative and meaningful locally-based communication and early-warning methods, especially in remote, technologically isolated areas. In this context, they should maximise the opportunities associated with mobilising local/indigenous knowledge and practices in cooperation with NGOs and CBOs.

It is critical that the provincial communication system be designed to accommodate a two-way communication capability to enable the transmission of information to and from stakeholders. This applies to the establishment of communication links with disaster management centres to enable those affected by disaster risks as well as other role players and stakeholders involved in disaster management to receive, transmit and disseminate information.

#### **5.5.3 Response and recovery support capability**

This capability is intended to facilitate the management of response and recovery operations and the recording, retrieval and updating of specific real-time information during single and multiple significant events and/or disasters. It must also allow for direct links with the communication system to provide the information required for mobilisation. As with the other components of the Provincial DRM Information and Communications System, this must be consistent/compatible with systems developed by the NDMC.

##### **5.5.3.1 Key components of the response and recovery support capability**

The response and recovery support capability must include the following:

- the area affected (indicating the specific and surrounding affected areas and links to all the spatial and other relevant data associated with the area)
- the type of event (classification by type, magnitude and severity)
- analysis of status of critical lifeline infrastructure
- analysis of reported impacts and monitoring of progress with recovery operations in accordance with standard assessment and situation report formats

- situation reporting, tracking and analysis of status of critical disaster operations, such as search and rescue, emergency medical care, access routes and fire suppression
- response and recovery resource database, including:—
  - primary agency (contact details of the primary agency, response and recovery plans and SOPs applicable to the specific area and event)
  - resources and support agencies (contact details of the support agencies, response and recovery plans and SOPs applicable to the specific activity)
  - relevant service providers (listing of all other related services that may be required to assist with response and recovery operations in a specific area).

The response and recovery features should be designed as templates and drop-down menus to make the information easily accessible for use by all role players during a disaster or significant event.

Provision must be made for real-time manipulation of data related to the event or disaster gathered during the planning phase. The component must also be linked to the institutional support and resource database to assist in identifying the location of resources locally and to facilitate and record the management and allocation of resources during a significant event or disaster. The DOC must be able to access this information in order to track the deployment of resources and the progress of response activities.

Specialist GIS-based applications must facilitate computer-aided management of response and recovery operations by allowing for simulated or real-time modelling, tracking and situational reporting in an affected area. These applications must be linked to the information management system.

### 5.5.3.2 Provincial monitoring and early warning systems

The Province of the Western Cape is exposed to a range of different natural and other hazards, with many of the most destructive occurrences being triggered by extreme weather conditions. In consultation with disaster management practitioners, NGOs, representatives of the media (including local radio stations and community newspapers), the South African Weather Service, as well as communities at risk, the WCDMC must establish robust, reliable and locally relevant mechanisms to disseminate warning information to households and communities in periods of heightened risk.

The WCDMC is required to assess ongoing risk conditions and to function as a central communications centre in advance of impending threats, as well as during incidents of provincial significance. To achieve an effective provincial emergency communications capability, the WCDMC must:

- establish a system (including emergency communication mechanisms) for reporting, evaluating and disseminating early warnings to ensure that threatened communities are able to respond appropriately and take risk-avoidance measures when a disaster occurs or is threatening to occur in their area
- act as a provincial reporting centre.

The WCDMC must establish a system for the receipt, evaluation and dissemination of early warnings. This must include the establishment of effective emergency communication mechanisms to ensure that threatened communities are able to respond appropriately and take risk-avoidance measures when a disaster occurs or is threatening to occur in their areas. The information dissemination mechanisms developed must ensure:

- *uniformity and credibility* in the messages disseminated and received
- coverage of isolated homesteads and *households in remote areas*
- coverage of *language minorities* and *new arrivals* to the Province of the Western Cape
- the possibility of the occurrence of *multiple hazard processes* (for example, wind and rain storms and concurrent mountain or estuarine flooding)
- *clear designation of responsibilities* at all stages of the warning chain, along with requirements for *reporting of actions* taken
- *clear definition of actions* to be taken by different role players for different forecasts and warning intensities
- opportunity for *simulation exercises* to test the robustness and effectiveness of warning mechanisms.

The provincial communication system must also make provision for the ongoing identification and engagement of innovative and meaningful locally-based communication and early warning methods, especially in remote, technologically isolated areas. These modes of communication must include the use of volunteers from local communities, the employment of indigenous knowledge and practices as well as cooperation with NGOs and CBOs.

### 5.5.4 Mobilisation and emergency communications

#### 5.5.4.1 Consistency with national specifications

The NDMC must provide the central backbone to enable the establishment of strategic emergency communication links in the country as well as the disaster management information system. Provincial and municipal disaster management centres are responsible for assisting the NDMC to develop and maintain such systems in as far as they apply to their areas of responsibility. Provincial and municipal systems must be compatible with the national system and must comply with the requirements developed by the NDMC.

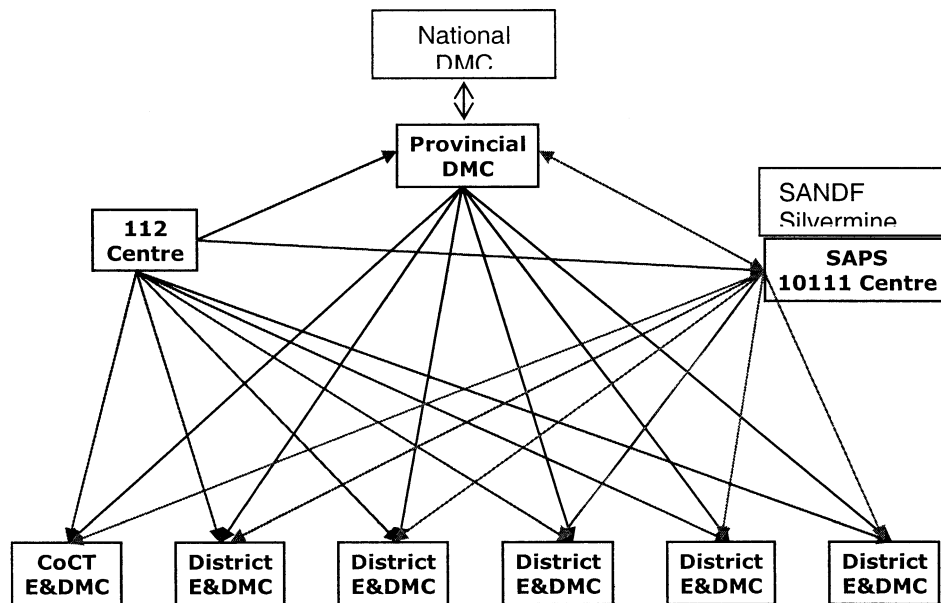
The establishment of a provincial system that enables communication between essential and emergency services within the province for the purposes of incident command and management of joint operations must receive high priority. Such a system must be compatible with disaster information management systems across the spheres.

#### 5.5.4.2 Coordination with other emergency communications systems and facilities

There are other important emergency call centres within the Province of the Western Cape that directly interface with and are relevant to the WCDMC's emergency communications role. These include:

- Emergency Call Centre of the National Department of Communications in Strand (112)
- Emergency Call Centre that will support the City of Cape Town and the municipal disaster management centres (112)
- Emergency Call Centre of the South African Police Services (10111)
- Emergency Call Centre of the Provincial Ambulance Services (10177)
- SANDF Tactical Command Centre (Silvermine)

The WCDMC must establish and implement clear channels of communication with these services to ensure streamlined and coordinated responses to warning information for the purposes of effective incident management. This need for enhanced communication capability is reflected in Figure 2.3.



**Figure 2.3: Envisaged communication channels between the WCDMC and other emergency and disaster management centres (E&DMCs) in the Province of the Western Cape**

#### 5.5.4.3 Mobilisation and communications in disaster response and recovery

The primary system requirements for mobilisation and communication are an on-site automated dialling and/or message delivery system and two-way radio communication facilities that call designated small or large groups of people, community members, volunteers and response agencies where required. The method of communication should be determined consultatively with various role players.

The WCDMC must, as a key element of its emergency communications strategy and plan, define clear mechanisms for activating and mobilising resources, as well as the deployment and application of volunteers. This should be undertaken consultatively with key role players within the province.

The system must be able to use standard landline telephones, cellular telephones connected to all available networks, and telephony-enabled radio systems. It must relay digitally recorded voice messages to and request responses from recipients, who must be able to use the telephone keypad to send signals in reply. All details of all calls must be logged and reports generated from this information. The system must also be capable of sending messages to pagers (alpha and digital) and sending e-mails and faxes.

#### 5.5.5 Event logging and tracking management

The system must allow for the recording and logging of all messages received and sent, all decisions made, and instructions or directives communicated during a significant event or disaster. Recording devices must allow for the recording and storage of voice, pictures and documents as well as their retrieval 'on the fly' for management and evaluation purposes.

#### 5.5.6 Key performance indicators

- An effective provincial emergency communications system has been established and implemented that complies with national requirements and ensures two-way communication between stakeholders and disaster management centres within the province.
- An effective central provincial reporting and communications capability has been established and implemented at the WCDMC.
- Effective and timely early warning communications mechanisms have been established and implemented by the WCDMC, including the activation of operational responses and mobilising of resources.
- A provincial emergency communications system has been established and implemented by the WCDMC that is streamlined and compatible with other similar emergency communications systems in the province.

#### 5.6 Public awareness and education support capability

A key DRM priority in the Province of the Western Cape is to promote a culture of risk avoidance. This can be achieved by *raising awareness* about expected and relevant disaster risks, *communicating measures* that reduce disaster vulnerability and *encouraging strategies* that reduce exposure to natural and other hazards. In order to support both provincial and national efforts in promoting DRM public awareness, education and research, the Province of the Western Cape DRM information and communications centre must:

- establish or have access to registers/databases for the following:
  - DRM-related education and training programmes in the Province of the Western Cape.
  - Accredited DRM service providers and accredited facilitators in the Province of the Western Cape



- DRM research programmes and projects relevant to the Province of the Western Cape
- DRM public awareness initiatives, projects and programmes relevant to the Province of the Western Cape
- Resource materials appropriate to DRM awareness, education and research in the Province of the Western Cape
- establish or have links to a public access website for promoting DRM awareness and education in the Province of the Western Cape

#### **5.6.1 Registers/data-bases on DRM public awareness, education and research**

The NDMC is responsible for developing appropriate databases to support DRM public awareness, education and research. The Head of the WCDMC must ensure that any existing or planned provincial DRM data-bases or website development related to public awareness, education and research are consistent and compatible with those developed or planned by the NDMC.

#### **5.6.2 Public-access website on disasters and risks via the Cape Gateway**

In keeping with requirements specified in the Disaster Management Act, the WCDMC must either establish or have links to a user-friendly *public-access website* with information on disasters and risks relevant to the Province of the Western Cape (sections 32(1)(b) and 33(1), (2)).

The public-access website, ideally developed as a component of the Cape Gateway, must be developed as an integral component of the overall electronic information management platform that underpins both provincial government and provincial disaster management.

Wherever possible, the most critical disaster-related information posted on the site must be presented in English, Afrikaans and isiXhosa.

It should contain:

- accessible information on key institutional roleplayers and resources available in disaster management in the Province of the Western Cape, along with their contact details
- important public information on what to do and whom to contact in the event of an emergency in the province.
- links to prevailing legislation, as well as the national and Province of the Western Cape disaster management frameworks and a glossary of terms used in disaster risk management
- important public information on the disaster risk profile of the Province of the Western Cape and measures and strategies to reduce recurrent disaster risks
- documentation on past disasters and significant events in the Province of the Western Cape
- a sub-site dedicated to school teachers and children for encouraging children to be more risk-averse
- a sub-site specific for posting warning information
- a sub-site for the media, including guidelines for journalists
- electronic links to the NDMC, as well as other relevant provincial, national and international disaster management electronic resource centres.
- Provision must be made for qualified personnel dedicated to the maintenance and updating of the public-access website, with the technical support of resource people skilled in materials development as well as stakeholder consultation and media liaison.

#### **5.6.3 Key performance indicators**

- The establishment of registers/databases related to provincial DRM education, training, public awareness and research that are aligned with those of the NDMC.
- The establishment, development and updating of a DRM public-access website with information relevant to the Province of the Western Cape.

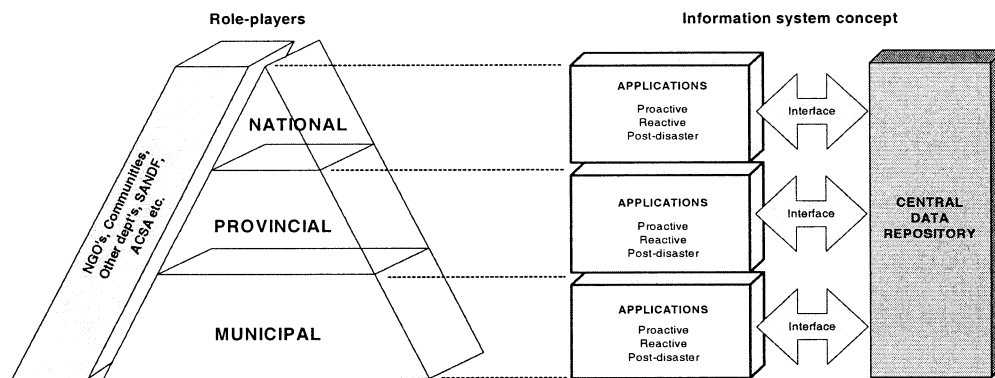
### **5.7 Critical information and communications support requirements**

#### **5.7.1 Establishment of IT capability, maintenance and support**

The business domain within which provincial disaster management information management occurs is shown in Figure 5.7. It comprises four major components:

- disaster management role players in the province
- central data repository
- applications (systems, activities and processes used by the role players to interact with data in the repository)
- interfaces (mediating facilities that enable the interactions between the applications and data repository, including networks, computers, the Internet, etc.).





**Figure 5.7: The business domain for disaster management information flow**

In this context, the WCDMC, in consultation with the NDMC and relevant provincial information and disaster risk management specialists, must:

- define and specify appropriate disaster-related information management applications to be used by the WCDMC, including:
  - *operational applications* that focus on operational activities, including risk reduction, incident management and post-disaster recovery
  - *management information systems* that provide the tools and information for monitoring and operational activities, particularly during disaster incidents
  - *supportive applications* that provide tools and information for maintaining routine data sets such as maintenance of an electronic database of disaster management role players.
- define and specify appropriate disaster-related information technology infrastructure to be used by the WCDMC, including:
  - server-related infrastructure
  - networking infrastructure
  - client-related infrastructure
  - peripherals

### 5.7.2 Strategic risk intelligence and analytic capability

Central to the effectiveness of the provincial disaster management information management system is the WCDMC's strategic analytic capability. The sophisticated hardware and software involved in consolidating and representing disaster risk patterns require that the provincial disaster management information management system is implemented by individuals with both IT capabilities and disaster risk analytic skills. Moreover, it requires that the WCDMC has capabilities to anticipate and to clearly communicate seasonal risk trends as well as long-term changes in specific risk patterns.

### 5.7.3 Key performance indicators

- Establishment of information technology and communications hardware and software that are compatible with requirements specified by the NDMC and provincial capabilities/specifications.
- Demonstrated robustness of the hardware and software to support disaster management information system functionality required by the WCDMC.
- Appointment of qualified personnel in the WCDMC with demonstrated skills and qualifications in information technology as well as in interpreting and synthesising disaster risk information.
- Generation of annual strategic information on provincial disaster risk trends and patterns, including changing loss patterns, impact of seasonality and other risk factors.

## Enabler 2: Disaster risk education, training, research and public awareness

### Objective

Promote a culture of risk avoidance among stakeholders in the Western Cape by capacitating role players through integrated education, training and public awareness initiatives and programmes informed by scientific research.

### Introduction

The successful reduction of disaster-related losses in the Province of the Western Cape and its developmental benefits are significantly enhanced by strengthening the province's human resource capabilities. For this reason, and in keeping with the Disaster Management Act, the provincial disaster management framework gives explicit priority to promoting disaster risk management training, education and research within the province (sections 30(1)(g), (h), (i), (j)). Similarly, the Disaster Management Act requires the WCDMC to give guidance on ways and means that increase capacity of communities and households to minimize their disaster risks.

The WCDMC is also required to promote formal and non-formal initiatives that encourage risk-avoidance behaviour within the province (sections 33(1)(ii), (2) of the Disaster Management Act).

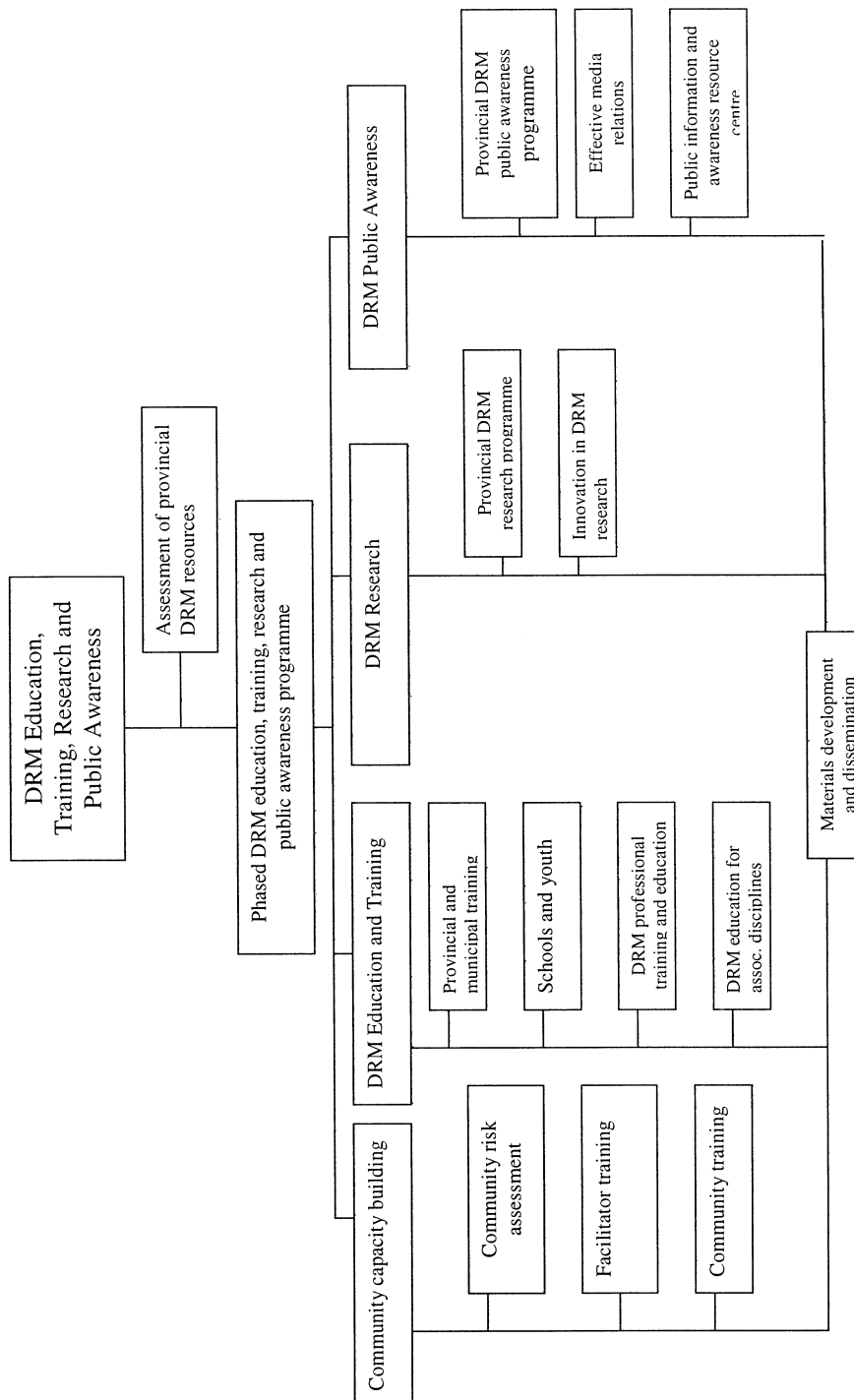
This enabler addresses the requirements for the development of a provincial DRM education, training, research and public awareness programme. It also describes measures for streamlining and aligning provincial efforts with those implemented nationally.

It outlines initiatives needed to build household and community resilience to expected disaster risks within the province. Enabler 2 also describes approaches that enhance the human resource capabilities of municipalities, provincial departments and their civil society partners to reduce disaster risks. This includes provincial strategies for supporting professional and collegial development within the disaster risk management and associated professions. It outlines provincial direction with respect to disaster risk research that will contribute to provincial policy and practice as well as national risk reduction efforts. Moreover, it describes priorities with respect to promoting disaster risk management awareness within the Western Cape.

### Outline

Section 6.1 revisits DRM education, training and research responsibilities to be undertaken by the NDMC and their implications for the WCDMC. Section 6.2. revisits DRM public awareness responsibilities to be undertaken by the NDMC and their implications for the WCDMC. Section 6.3 describes the requirements for developing an integrated provincial DRM education, training, research and public awareness programme. Section 6.4 introduces an integrated DRM Education, Training and Public Awareness Support Service for the province. Figure 6.1 represents the key components of this enabler.

**Enabler 2**  
**Figure 6.1** Western Cape DRM Education, Training, Research and Public Awareness



## **6.1 Aligning provincial efforts in DRM education, training and research with the NDMF**

The NDMF specifies actions that must be undertaken by the NDMC to build national capacity in DRM education, training and research.

### **6.1.1 National education, training and research needs and resources analysis (NETaRNRA)**

The NDMC is responsible for conducting a national education, training and research needs and resources analysis (NETaRNRA) in the two years following the implementation of the national disaster management framework.

The WCDMC must assist the NDMC in carrying out the NETaRNRA in the Western Cape, both with respect to DRM education, training and research needs specific to the province, as well as the DRM resources and capabilities available to support these areas in all spheres.

### **6.1.2 National disaster risk management education and training framework**

The NDMC is responsible for developing a national DRM education and training framework within two years of the implementation of the national disaster management framework. This is to ensure that DRM education and training needs are addressed uniformly and in accordance with both the NETaRNRA and the National Indicative Disaster Risk Profile.

The WCDMC must assist the NDMC in its development of the national DRM education and training framework in order that DRM education, training and research priorities in the Western Cape are supported and addressed.

### **6.1.3 Establishing mechanisms for standards, accreditation and registration**

The NDMC is responsible for ensuring that all DRM education and training standards and qualifications comply with the requirements of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995) and the guidelines prescribed in the NQF. The NDMC is responsible for establishing a technical advisory body, including representatives of both national and provincial spheres of government, to assist the NDMC, PDMCs, MDMCs and SETAs to maintain the required standards of disaster risk management education across all functional/professional areas.

The NDMC is also responsible for establishing an accreditation and registration system to ensure that all education and training initiatives undertaken by specialist agencies, trainers, training institutions, NGOs, and the private and public sectors comply with the minimum standards established for disaster risk management education and training.

The WCDMC must participate as required in the work of the national technical advisory body established by the NDMC. The WCDMC must also ensure that DRM education and training professionals and agencies in the Western Cape comply with the accreditation and registration systems established by the NDMC.

### **6.1.4 Disaster risk management education**

The NDMF specifies that disaster risk management education programmes must be designed as part of the formal education system and be in line with the NETaRNRA, the national education and training framework and SAQA and NQF requirements.

The NDMC is responsible for promoting, facilitating and monitoring the development, implementation and accreditation of education programmes for professionals in disaster risk management and associated fields. The NDMC is also responsible for promoting, facilitating and monitoring the development and implementation of DRM education programmes in schools.

Within the Province of the Western Cape, the WCDMC is responsible for promoting, facilitating and monitoring the development, implementation and accreditation of education programmes for professionals in disaster risk management and associated fields. The WCDMC is also responsible for promoting, facilitating and monitoring the development and implementation of DRM education programmes in schools across the province.

The WCDMC must establish a register of all accredited facilitators, presenters, instructors, educators and institutions offering formal disaster risk management programmes, as well as a register of formal disaster risk management course materials in the Western Cape. This must be incorporated into the provincial resource and institutional support DRM database and submitted to the NDMC.

#### **6.1.4.1 Education for disaster risk management professionals (NQF levels 5—8)**

The WCDMC is responsible for facilitating the development of specific education programmes by institutions of higher learning in the province that will enhance a professional career path in disaster risk management. These should be in accordance with approved unit standards and academic requirements.

#### **6.1.4.2 Education for practitioners in professions associated with disaster risk management (NQF levels 5—8)**

The WCDMC is also responsible for encouraging the integration of relevant aspects of disaster risk management into the existing education programmes of professions associated with disaster risk management in the Province of the Western Cape.

#### **6.1.4.3 Integration of disaster risk reduction education in primary and secondary school curricula (NQF levels 1—4)**

The WCDMC is responsible for facilitating the integration of disaster risk reduction education information into primary and secondary schools in the Province of the Western Cape, along with supporting relevant changes to curricula. The WCDMC, in cooperation with the Provincial Department of Education, must engage primary and secondary schools in the Province in processes that raise awareness about disaster risk management and disaster risk reduction.

### **6.1.5 Training programmes for disaster risk management**

The NDMF requires that DRM training programmes must be designed in line with the NETaRNRA, the national education and training framework and, where appropriate, SAQA and NQF requirements. The NDMF also requires that national, provincial and municipal organs of state must plan, organise and implement training programmes relevant to their respective areas of responsibility in consultation with local communities and in line with the NETaRNRA.

In the Western Cape, the WCDMC is responsible for promoting, facilitating and overseeing the development and implementation of training programmes and materials for practitioners in disaster risk management and associated fields, relevant stakeholders and interested people and communities.

The WCDMC is also responsible for encouraging NGOs and private sector institutions to plan, organise and implement DRM training programmes in the province for clients, suppliers, service providers and the general public.

The WCDMC must establish a service provider register for the province to regulate the quality and standards of training programmes. It must also ensure that a register of facilitators, presenters, service providers and course materials is kept and updated for the province.

#### **6.1.5.1 Types of training**

The NDMC is responsible for facilitating the registration of training programmes, such as short courses and workshops, with the relevant SETAs so that they can count as credits towards formal qualifications.

#### **6.1.5.2 Training programmes for government officials and policy makers**

In the Province of the Western Cape, the WCDMC is responsible for facilitating DRM training programmes for government officials and policy makers. The WCDMC must ensure that these programmes include disaster risk reduction and other relevant areas, which may include development planning, hazard identification and assessment, communicable diseases, dry land agriculture, participatory rural appraisal, applied climate science and GIS.

Such training programmes must embrace the multidisciplinary and interdisciplinary dimensions of disaster risk reduction and should be informed by the relevant indicative risk profile. The training of municipal councillors should be undertaken by SALGA.

The training of officials within the province should take place within the context of the national education and training guidelines provided by the Skills Development Act, 1998 (Act No. 97 of 1998), the Skills Development Levies Act, 1999 (Act No. 9 of 1999) and the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995). The provisions contained in these Acts will have a direct bearing on the qualifications and career paths of officials involved in disaster risk management.

#### **6.1.5.3 Training programmes for communities in the Province of the Western Cape**

The WCDMC must ensure that training programmes for communities in the Western Cape focus on disaster risk awareness, disaster risk reduction, volunteerism and preparedness. They must also incorporate local and indigenous knowledge when carried out at community level, and be provided in the appropriate language(s) for the communities concerned.

#### **6.1.5.4 Training of volunteers in the Western Cape**

The WCDMC must facilitate the development of special training programmes developed for persons interested in volunteering their services in the province. These programmes should address issues such as disaster risk reduction, vulnerability assessments, greater awareness of risks and hazards and general preparedness and response. There should be an emphasis on the training of community trainers in order for them to serve as 'force multipliers' by, in turn, training others. In this regard, special consideration must be given to the costs of training, provision of protective clothing, travel expenses, insurance and incentives.

MDMCs within the Province of the Western Cape must maintain a record of all volunteers trained in such programmes for submission to the WCDMC and the NDMC for inclusion in provincial and national databases.

#### **6.1.5.5 Training of trainers and facilitators**

The WCDMC is responsible for encouraging training programmes that facilitate the development of DRM accredited trainers and facilitators in the Province of the Western Cape. This is so that they can transfer improved skills and knowledge to relevant organisations and communities at risk. Such programmes must be in line with the education and training framework and informed by the NETaRNRA.

#### **6.1.5.6 Learnerships**

The WCDMC is responsible for facilitating the development of DRM learnerships in the province. These should include mentorship programmes that involve the transfer of skills from experienced officials to young inexperienced learners. Such learnerships must be in line with SAQA and NQF requirements.

#### **6.1.6 Research**

The WCDMC is required to participate in consultations initiated by the NDMC that support the development of a strategic disaster risk reduction agenda. It is also responsible for encouraging consultation and engagement between disaster risk scientists and disaster risk reduction professionals in the Western Cape to identify priorities for collaborative research and development.

### **6.2 Aligning provincial efforts in DRM public awareness with the NDMF**

#### **6.2.1 Integrated public awareness strategy**

The NDMF requires that the NDMC must plan, organise and initiate a national DRM public awareness strategy that is informed by robust disaster risk assessment findings and consultation with relevant stakeholders. It is also the NDMC's responsibility to ensure the development and implementation of programmes aimed at creating awareness and encouraging risk-avoidance behaviour by stakeholders. The NDMC must also establish good media relations to ensure balanced media coverage and publicity to increase DRM public awareness and understanding.

The NDMC is required to establish a DRM public awareness and information service to support the efforts of all key DRM role-players. This includes the development of a user-friendly public access website with relevant and up-to-date information on disasters, disaster risk and key institutional role players.

The NDMF further requires each organ of state in all three spheres of government to formulate and implement appropriate public awareness programmes that are aligned with the national strategy. Communities, NGOs and the private sector must be consulted about the design of such programmes.

In addition, each organ of state and DRM centre in the national, provincial and municipal sphere is required by the NDMF to assign responsibility for managing media relations to a specific functionary or office.

The WCDMC must participate in processes initiated by the NDMC to develop an integrated national DRM public awareness strategy and in its implementation within the Province of the Western Cape. The WCDMC, along with provincial organs of state and municipalities within the Province of the Western Cape must also formulate and implement appropriate DRM public awareness programmes that are aligned with the national DRM public awareness strategy.

The WCDMC as well as MDMCs and other organs of state in the Western Cape must assign responsibility for managing media relations to a specific functionary or office.

### 6.2.2 Schools

The NDMF requires the NDMC seek to establish links with existing awareness creation programmes in schools for the purpose of disseminating information on disaster risk management and risk avoidance.

The WCDMC must facilitate links between the NDMC and relevant awareness creation programmes in schools within the Western Cape. Moreover, DRM centres in the Cape Town Metropolitan Area and district municipalities throughout the Western Cape must play an active part in engaging schools to ensure a practical approach to awareness programmes. School DRM awareness programmes in the province must be conducted, assessed and adapted on an annual basis.

### 6.2.3 Role of the media

The NDMF requires that the role of the media during disasters be defined and managed through a consultative process involving the media, role players involved in response and recovery efforts, and communities routinely affected by disasters or impending disasters.

It also requires national, provincial and municipal disaster management centres to establish and manage ongoing relations with relevant local and national media. This includes organised promotions and the positive reinforcement of disaster risk reduction programmes to ensure public participation in, and support for, such programmes.

The WCDMC and other relevant stake-holders from the Province of the Western Cape must participate in national consultative processes initiated by the NDMC to define the role of different media in DRM. The WCDMC, along with MDMCs within the Province must also establish relations with relevant local and national media.

Where possible, the WCDMC and MDMCs in the Province of the Western Cape are required to inform the NDMC in advance about electronic broadcasts, the publication of press reports or the public appearances of officials in respect of disaster risk management issues.

### 6.2.4 DRM information and advisory service

The NDMC must establish a DRM information and advisory service to support the implementation of DRM programmes in communities at-risk as well as the DRM initiatives of other national provincial and municipal stake-holders.

In the Province of the Western Cape, the WCDMC and MDMCs are required to create capacity to act as information repositories of and conduits for disaster risk reduction information in their respective spheres.

The WCDMC is also required to register DRM and associated consultants to ensure that acceptable standards of consulting services are rendered in line with the national disaster management framework and the national disaster risk management education and training framework. This is to be submitted to the NDMC for inclusion in the national database.

## 6.3 Development of an integrated provincial DRM education, training, research and public awareness programme in the Province of the Western Cape

In order to ensure that provincial efforts in DRM education, training and public awareness are aligned with planned national processes as well as provincial development priorities, the WCDMF foresees the development of an integrated phased provincial DRM education, training, research and public awareness programme.

The WCDMC must lead the development and implementation of this programme in collaboration and consultation with relevant stake-holders within the Province of the Western Cape, drawn from the WCDMAF.

The WCDMC is also responsible for disseminating the draft provincial DRM education, training, research and public awareness programme to key provincial stake-holders and the NDMC for comment before it is finalised, along with the final document.

### 6.3.1 The programme should be informed by:

- The **legal requirements** of the Disaster Management Act and the NDMF.
- Provincial policy direction from *iKapa elihlumayo*
- Disaster risk reduction direction from the **provincial indicative disaster risk profile**
- Technical and stakeholder guidance from a **provincial working group** established to enable DRM education, training, research and public awareness
- A **phased approach** to programme development and implementation to ensure alignment with national processes

### 6.3.1 The legal requirements of the Disaster Management Act and the NDMF.

The Disaster Management Act explicitly requires that a PDMC promote the recruitment, training and participation of volunteers in its particular province (sections 30(1)(g)). Moreover, it also specifies that the PDMC must promote disaster management capacity building, training and education, including in schools, and may promote relevant research within the province (sections 30(1)(h), (i), (j)). Similarly, to achieve uniformity in approach in capacity building, the NDMF gives guidance for non-accredited and accredited education and training programmes as well as research.



The Disaster Management Act also requires the WCDMC to give guidance on ways and means that increase the capacity of communities and households to minimise their disaster risks. The WCDMC is furthermore required to promote formal and non-formal initiatives that encourage risk-avoidance behaviour within the province (see section 33(1)(ii), (2) of the Disaster Management Act). In addition, the NDMF gives priority to promoting a culture of risk avoidance and the development of a national public awareness strategy.

### 6.3.2 Provincial policy direction from *iKapa elihlumayo*

The Framework for the Development of the Western Cape Province recognises the pressing need to develop human and social capital, with a specific focus on raising skill levels and an emphasis on youth. It also gives priority to the transversal integration of developmental efforts across provincial departments, as well as the streamlining of municipal IDPs with the broader Provincial Growth and Development Plan (forthcoming).

The province's focus on increasing human and social capital, skills development and transversal integration directs the efforts of this enabler to build household and community resilience to expected disaster risks within the Province.

### 6.3.3 Disaster risk reduction direction from the provincial indicative disaster risk profile

The focus for disaster risk management capacity building is also informed by disaster risk patterns in the Western Cape. Many of the Province's formally 'declared disasters' are triggered by extreme weather and include large-scale informal settlement, veld and urban fringe fires, severe wind and rain storms, flash-floods and drought. These relatively infrequent 'declared' events are exceeded by many 'undeclared significant events' that are managed locally.

### 6.3.4 Technical and stakeholder guidance from a provincial working group established to enable DRM education, training, research and public awareness

To ensure ongoing consultation with key stakeholder groups (in addition to the WCDMAF), the successful development and implementation of a provincial disaster risk reduction education and public awareness programme requires the WCDMC to establish a *provincial working group on disaster risk management education, training, research and public awareness*.

### 6.3.5 Phased approach to programme development and implementation to ensure alignment with national processes

The WCDMF foresees the development and implementation of the provincial education, training, research and public awareness programme comprising three phases that are aligned with processes described in the NDMF.

- **Phase I** of the provincial DRM Education and Public Awareness Programme is aligned with the start-up initiatives planned by the NDMC — specifically, the undertaking of the national education, training and research needs and resources analysis, as well as the formulation of both the national disaster risk management education and training framework and national DRM public awareness strategy (to be completed by 2007).
- **Phase II** of the provincial DRM Education and Public Awareness Programme is aligned with the medium-term actions of the NDMC — specifically, the implementation of the national disaster risk management education and training framework and national DRM public awareness strategy
- **Phase III** of the provincial DRM Education and Public Awareness Programme is aligned with the long-term strategies, programmes and regulatory mechanisms established by the NDMC including the introduction of standards, DRM accreditation and registration mechanisms for specialist agencies, trainers, training institutions, NGOs, and the private and public sectors.

### 6.3.2 Institutional arrangements

The WCDMC must identify a qualified staff member or specific office to be responsible for the development and implementation the provincial DRM Education and Public Awareness Programme — to be the focal point for collaboration with DRM Education and Public Awareness initiatives undertaken by the NDMC and for cooperation with those carried out within the Province of the Western Cape.

The WCDMC must also establish a provincial working group on disaster risk management education, training, research and public awareness, drawn from the WCDMAF, and including representatives of district municipalities as well as the Cape Town Metropole.

In order to align DRM education and awareness activities across the province, all provincial organs of state, district municipalities and the Cape Town Metropole must designate focal points for DRM education, training, research and awareness. This also applies to key DRM training partners, relevant research institutions and those involved in higher learning within the province.

Relevant contact and other information on all DRM education, training, research and awareness focal points must be recorded by the WCDMC as required in Enabler 1 and submitted to the NDMC.

### 6.3.3 Long-term objective

The achievement of significantly enhanced human resource capabilities in provincial disaster risk reduction within the Western Cape is foreseen through the progressive development of a DRM Education, Training, and Public Awareness Support Service in the WCDMC.

The development of such institutional capability is a key outcome of the provincial education, training, research and awareness programme. However, its establishment is foreseen as a result of the progressive phasing-in of key programme components over a period not less than five years following the publication of the WCDMF.

### 6.3.4 Key components of the provincial DRM Risk Education, Training, Research and Public Awareness Programme

The provincial DRM education, training, research and public awareness programme comprises eight components to be introduced using a phased approach. The WCDMC must facilitate:

- Assessment of DRM resources available within the province for education, training, research and public awareness
- Development of **DRM training and capacity-building initiatives and programmes**, especially those that build **community resilience**
- The integration of disaster risk reduction into **school curricula** and other activities for children and youth
- Development of **higher education programmes in DRM** and associated disciplines
- Development and dissemination of **disaster risk reduction materials**



- Development of a provincial **DRM public awareness programme**
- Development of a provincial **DRM research programme**

### **6.3.5 Phase I programme**

#### **6.3.5.1 Implementation focus**

This phase focuses on establishing key institutional arrangements for implementing a coherent approach to DRM education, training, research and public awareness in the province, and for cooperating with national initiatives, including the national education, training and research needs and resources analysis, the formulation of both the national disaster risk management education and training framework and the national DRM public awareness strategy.

It also foresees the promotion of general DRM awareness and the orientation of key role-players, including organs of state within the province to their responsibilities in implementing the Disaster Management Act, the NDMF and WCDMF.

It gives priority to community risk assessment and capacity-building in selected high-risk and disaster-prone communities across the Western Cape.

Phase I concludes with the consultative development of a Phase II DRM education, training, research and public awareness programme and its commencement.

It specifically focuses on:

- Assessing existing DRM resources within the province for education, training, research and public awareness
- Developing DRM training and capacity-building initiatives and programmes — with an emphasis on community resilience-building and training for provincial departments and municipalities
- Linking DRM education and research

#### **6.3.5.2 Assessment of existing DRM resources within the province for education, training, research and public awareness**

The identification of existing provincial capabilities in DRM education, training, research and public awareness is an important prerequisite for programme development. This must incorporate other sectoral initiatives in poverty reduction or health that are directly relevant to vulnerability reduction, as well as relevant public awareness initiatives undertaken within municipalities, NGOs, CBOs, the private sector and teaching/learning institutions. It also includes focused awareness efforts related to veld and urban fringe fires, child accident prevention, paraffin safety, safe schools initiatives and other associated programmes.

The WCDMC must facilitate this assessment — and align it with the development and implementation of national education, training and research needs and resources analysis.

#### **6.3.5.3 Development of DRM training and capacity-building initiatives and programmes**

##### **Community resilience-building**

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 province. This will contribute considerably to closer links between disaster risk reduction and development planning in disaster-prone areas and communities.

This process must be supported by the consultative development of accessible and attractive materials in English, Afrikaans and isiXhosa to streamline disaster reduction interventions across diverse settlements and communities in the Province of the Western Cape. Such materials should also be accessible in web-enabled format.

The consultative involvement of partner organisations in the development of materials for use in at-risk communities allows for their gradual capacity building over time. However, this must be supported by the convening of organised training of facilitator courses to formally introduce the materials and approach to a variety of organisations and training partners.

In Phases I and II of the provincial programme, it is expected that such courses will be non-accredited. However, the WCDMC must explore provisions for eventual accreditation of the courses developed through the mechanisms proposed in the NDMF or other relevant sector education and training authority (SETA).

As outlined in the NDMF, course facilitators approved by the WCDMC to provide non-accredited training and capacity building within the province will be required to register with the NDMC. Similarly, non-accredited courses approved by the WCDMC will be submitted to the national DRM Education and Training Quality Assurer (ETQA) for approval.

The WCDMC is responsible for leading this initiative in the province and for facilitating links between role-players involved in the Province of the Western Cape as well as with the NDMC. The WCDMC is also responsible for monitoring its effectiveness, including the development of measurable indicators that track the incorporation of risk reduction approaches into IDP efforts within local municipalities and changing patterns in disaster loss.

##### **DRM training and orientation for provincial departments, municipalities and other key role players**

The Disaster Management Act and NDMF both require that provincial organs of state and municipalities develop disaster risk management plans and incorporate disaster risk management into integrated development plans. In consultation with relevant provincial departments, the WCDMC must explore the appropriateness of developing a core module on disaster risk management and risk reduction for use within the provincial sphere that would facilitate its adaptation and incorporation into the programming of different departments.

Similarly, in consultation with representatives of district and local municipalities, the WCDMC must explore the appropriateness of developing a core module on disaster risk management and risk reduction for use within the municipal sphere that would facilitate its adaptation and incorporation into the integrated development plans of municipalities within the province.

To facilitate the incorporation of a uniform approach to disaster risk management into existing capacity-building programmes undertaken by provincial departments and municipalities, the WCDMC must facilitate at least two short courses that present the module to stake-holders in these spheres.

Consideration must also be given to the development of a self-study CD-Rom and/or on-line learning programme that can facilitate individual capacity building for provincial and municipal employees.

The WCDMC is responsible for communicating the content of the core module with the NDMC to ensure it is aligned with similar materials and initiatives being developed nationally and elsewhere.

#### **6.3.5.4 Linking education, research and risk reduction planning**

To minimise costs related to applied risk reduction research and to achieve added value, the WCDMC must consultatively explore mechanisms to link student research projects to applied disaster risk research needs in provincial departments, the Cape Town Metropole and within district municipalities. Such linkage affords multiple opportunities in generating less expensive applied DRM research outputs that service specific public needs, as well as build the capacities of young people and stimulate greater interest among institutions of higher learning in disaster risk management.

#### **6.3.5.5 Key performance indicators**

- The WCDMC and other key provincial role-players have participated in the national education, training and research needs and resources analysis and in the formulation of the national DRM education and training framework.
- The WCDMC is represented on the national technical advisory body for establishing standards, accreditation and registration.
- An institutional focal point for provincial DRM education, training, research and public awareness has been established in the WCDMC along with a provincial working group to ensure stake-holder consultation.
- A Phase I integrated provincial DRM education, training, research and public awareness programme has been developed consultatively that is consistent with the NDMF and WCDMF.
- Key resources related to DRM education, training, research and public awareness have been identified in the province and recorded in the provincial database.
- A programme to strengthen community resilience in at-risk areas of the province has been implemented, supported by relevant materials and trained facilitators.
- Supportive core modules that facilitate the integration of DRM into the core activities of provincial departments and municipalities within the province have been consultatively developed and implemented.
- There is evidence of applied DRM research facilitated by the WCDMC within the province involves students enrolled in the province's institutions of higher learning and research.
- Courses related to DRM, along with DRM training facilitators and other service providers have been registered by the WCDMC and submitted to the NDMC.

### **6.3.6 Phase II programme**

#### **6.3.6.1 Implementation focus**

The Phase II DRM education, training, research and public awareness programme must incorporate the outcomes of the national education, training and research needs and resources analysis, national disaster risk management education and training framework and the national DRM public awareness strategy.

It builds on cooperative relationships developed in Phase I to work towards formal education and non-formal training DRM programmes, including those associated disciplines.

Phase II foresees the development of a provincial DRM awareness programme and beginning stages of an appropriate DRM research agenda for the province.

It concludes with the consultative development of a Phase III DRM education, training, research and public awareness programme and its commencement.

The Phase II provincial programme should be adapted to accommodate the outcomes and requirements of the national disaster risk management education and training framework and the national DRM public awareness strategy. It gives particular attention to adding the following components.

- Continued development of DRM training and capacity-building initiatives and programmes
- Integration of disaster risk reduction into school curricula and other activities for children and youth
- Development of higher education programmes in DRM and associated disciplines
- Development and dissemination of disaster risk reduction materials
- Development of a provincial public awareness programme

#### **6.3.6.2 Continued development of DRM training and capacity-building initiatives and programmes**

##### **Development of short courses**

The WCDMC must facilitate the development and introduction of appropriate short courses to support DRM professionals within the province, as well as other professionals and practitioners involved in DRM. The WCDMC must register such courses and where possible, initiate measures to bring about their eventual accreditation.

Community capacities are strengthened not only by structured learning opportunities, but also through other mechanisms. These include exchange visits by community residents and groups to other settlements and communities where risk reduction efforts have been successfully implemented. Such field exchanges provide concrete examples of community-based success that build confidence in both the hosting as well as the visiting groups. The WCDMC, in consultation with the Cape Town Metropole and district municipalities, must facilitate such field exchanges to allow for practical on-site learning and capacity building.

Similarly, the WCDMC must explore mechanisms to allow exchange visits by disaster risk management and other practitioners from provincial and municipal organs of state within the Province of the Western Cape.

Where applicable, the WCDMC must also explore mechanisms to allow exchange visits by disaster risk management and other practitioners from provincial and municipal organs of state in the Province of the Western Cape with colleagues elsewhere in South Africa.

### 6.3.6.3 Integration of disaster risk reduction into school curricula and other activities for children and youth

In consultation with the Provincial Department of Education, the WCDMC must develop a cooperative programme to integrate appropriate aspects of disaster risk reduction into the life orientation component of primary and secondary school curricula. It must also explore opportunities with the Provincial Department of Education to link issues related to disaster risk management with the Safe Schools Project and other programmes that engage children and youth. This is in addition to changes in the national school curriculum facilitated by the NDMC and the National Department of Education.

### Capacity-building opportunities for young volunteers in disaster risk reduction

The WCDMC must also explore capacity-building opportunities for involving young volunteers in disaster risk reduction. This involvement is wide-reaching, and includes activities as diverse as disseminating early warning 'fire weather' information within the community, rainfall monitoring and the drawing/dissemination of community risk maps.

### 6.3.6.4 Development of higher education programmes in DRM and associated disciplines

#### Professional development for disaster risk management practitioners

The WCDMC must also explore and support the development of dedicated higher education mechanisms for disaster risk management within the province, wherever possible building on existing training and education entities already engaged in related fields. These include existing emergency management training programmes, as well as relevant short courses offered at universities and technikons within the province.

#### Integration of disaster risk reduction into academic programmes of associated disciplines

The WCDMC must explore opportunities for expanding the teaching and learning capabilities of other academic programmes relevant to disaster risk reduction. These include the Health Sciences, Adult Education, Social Development, Engineering, Urban Planning, Governance and Agriculture. Professional advocacy to adapt such curricula may be facilitated by the relevant provincial departments that, now tasked with integrating disaster risk management into their core activities, must expand their human resource base accordingly.

### 6.3.6.5 Development and dissemination of disaster risk reduction materials (includes web-enablement)

The provision of accessible, consultatively developed capacity-building disaster risk reduction materials in appropriate languages is a powerful facilitator of uniform change and development. In this context, the WCDMC must give priority to the development of both hard-copy and web-enabled capacity-building materials that facilitate the implementation of disaster risk management by municipalities, provincial departments, as well as nongovernmental and community-based organisations

### 6.3.6.6 Development of a provincial public awareness programme

The WCDMC must develop and implement a provincial DRM public awareness programme in consultation with key stake-holders within the province. This must be aligned with the national public awareness strategy and national consultations to define the role of different media in DRM.

The WCDMC must consult with the relevant media in the province to develop collaborative initiatives that:

- promote and incorporate *important risk reduction information*, including 'success stories' in accessible language into print, radio and television media
- enable clear, timely, accurate, coherent and *unambiguous communication of warning information* in multiple languages and through multiple media channels during periods of increased risk
- encourage responsible and *accurate reporting of disaster events*
- provide for ongoing liaison with the media, including the designation of a *specific focal point* within the WCDMC responsible for media liaison
- result in *jointly developed guidelines/procedures* that streamline cooperation between representatives of the media and provincial disaster risk management before, during and after disaster incidents.

The WCDMC must also ensure that the provincial DRM public awareness programme promotes risk-avoidance behaviour by all stakeholders. This includes the use of public awareness campaigns aimed at raising consciousness about disaster risks that must provide information on how to reduce vulnerability and exposure to hazards. Such campaigns could include:

- organised and planned awareness programmes aimed at communities, officials, politicians and other stakeholders, using the media, posters, videos, publications and any other innovative means
- planned conferences, that include municipal intergovernmental structures
- imbizo meetings (the participation of volunteers at such meetings is recommended)
- awareness campaigns conducted at least 30 days before the onset of high-risk periods and seasons.
- annual recognition and celebration of World Disaster Risk Reduction Day (the first Wednesday in October)
- rewards, incentives, competitions and recognition schemes to enhance awareness of and participation in risk reduction activities
- dissemination of information to all role players, especially those at risk, including the use of communication links and early warning systems.

The WCDMC must communicate the content of its provincial public awareness programme to the NDMC to ensure alignment of its efforts with those of the NDMC.

### 6.3.6.7 Key performance indicators

- A Phase II provincial DRM education, training, research and public awareness programme has been developed that is consistent with the national DRM education and training framework.
- There is evidence of a growing number of high quality DRM short courses within the province, including those offered by nongovernmental organizations.

- There is evidence of exchange visits both by residents of at-risk communities, as well as DRM practitioners within the province.
- Acooperative programme to integrate appropriate aspects of DRM into schools within the Western Cape has been consultatively developed with the Provincial Department of Education, and implemented.
- Provincial initiatives for DRM in schools have made provision for and have implemented capacity-building opportunities for young volunteers in disaster risk reduction.
- At least one key institution of higher learning in the Western Cape has developed capability to offer professional education and training for DRM professionals in the province.
- There is evidence that institutions of higher learning within the province are progressing towards incorporating key aspects of DRM into relevant academic programmes.
- There is evidence that accessible disaster risk reduction materials have been developed and disseminated within the province and are used by municipalities, provincial departments, nongovernmental and community-based organizations.
- The WCDMC has consultatively developed a provincial DRM public awareness programme that is consistent with the national DRM public awareness strategy and has communicated this to the NDMC.
- The WCDMC has registered formal and non-formal courses, as well as facilitators, instructors, organisations and other institutions involved in DRM education and training, and has communicated this to the NDMC

### **6.3.7 Phase III programme**

#### **6.3.7.1 Implementation focus**

The Phase III DRM education, training, research and public awareness programme must be aligned with accreditation and registration mechanisms established by the NDMC.

In addition, this phase foresees the introduction of a Western Cape DRM Education, Training, and Public Awareness Support Service to offer ongoing assistance to increasing DRM education and public awareness activities within the province and is aligned with the long-term strategies, programmes and regulatory mechanisms established by the NDMC.

The Phase III provincial programme should be adapted to accommodate the mechanisms put in place by the NDMC for course accreditation and registration. It gives particular attention to adding the following components.

- Disaster risk research, including innovation
- Continued development of training opportunities, including specialised risk reduction training
- Public awareness and information resource centre
- Establishment of a Western Cape DRM Education, Training and Public Awareness Support Service

#### **6.3.7.2 Disaster risk research**

In accordance with the Disaster Management Act and NDMF, the WCDMC is required to facilitate disaster risk management research within the province. Robust research carried out as a prerequisite for any risk reduction intervention not only increases the likelihood of a successful programme, but also improves coordination across services and reduces the chance that resources are wasted in the long term.

Applied research is especially necessary prior to the implementation of risk reduction initiatives, and as specified by the NDMF, such interventions must be preceded by transparent research to demonstrate evidence of the relevance or likely effectiveness of the planned intervention(s).

Such requirements apply to provincial and municipal entities within the Western Cape that must test and evaluate specific risk reduction initiatives before these are undertaken more broadly through integrated development plans. This is intended to foster innovation and cross-sectoral linkages at a small or local scale.

#### **Applied research and pilot projects**

Applied research is specifically relevant to assess the vulnerability reduction potential, appropriateness, cost-effectiveness and sustainability of previously untested risk reduction strategies prior to a more widespread and costly provincial roll-out or 'scaling-up'.

#### **Provincial disaster risk research programme**

In keeping with requirements specified by the NDMF in disaster risk management research, the WCDMC, in consultation with provincial stakeholders and the NDMC, must:

- facilitate consultation and engagement between the disaster risk scientists and disaster risk reduction professionals within the province to identify priorities for collaborative research, as well as mechanisms for implementing such initiatives
- participate in national processes to determine a national DRM research agenda
- establish processes for auditing existing research initiatives and programmes to identify those that add value to an understanding of disaster risk management processes and trends within the Western Cape and provide insights into effective risk reduction strategies and measures
- develop and implement a strategic disaster risk management research programme for the province.
- communicate its DRM research programme to the NDMC.

#### Innovation in education, training, capacity building and research

While provincial efforts must place emphasis on uniformity in disaster risk management policy and practice, these must also encourage innovation and improvement in the field — especially when these add value to existing programmes and initiatives.

In this context, the WCDMC must explore opportunities for internships and learnerships related to disaster risk management within provincial departments, the Cape Town Metropole and district municipalities. This also includes the possibility of learnerships and internships within non-governmental organisations and community-based organisations.

### 6.3.7.3 Specialised risk reduction education and training within the Province

The introduction and incorporation of risk reduction priorities across a broad range of provincial activities also requires the WCDMC to encourage innovative training and education initiatives that cross sectors and enable public-private partnerships. These include closer integration of disaster risk reduction in agriculture as well as the insurance and tourism industries — particularly in connection with fire, drought and extreme weather events. They also include education innovation related to risk-proofing and poverty reduction capacity-building in poor communities, and the closer integration of disaster risk reduction efforts in HIV/AIDs-affected communities and households.

Such courses should be registered as required in the provincial database and communicated to the NDMC.

### 6.3.7.4 Public awareness and information resource centre

The WCDMC must consult with the NDMC concerning the implementation of the national DRM public awareness and information service as well as stake-holders within the province. Accordingly, the WCDMC must consolidate and make available relevant print and electronic resource materials on disasters and risks to provincial organs of state, municipalities, schools, NGOs, representatives of the private sector and other provincial partners — and record these in a resource database.

In this context, the WCDMC must:

- establish a *physical resource centre/library* containing hard-copy published and unpublished resource materials, teaching and learning packs and guidelines related to disasters and risks in the Western Cape. These should include information and materials generated by the NDMC and other provinces, as well as best-practice information from international sources. The consolidated documents should be recorded in an electronic database.
- facilitate *access by municipalities, provincial departments and other disaster risk management role players* to such resource materials, including uploading relevant information on the public-access website and servicing individual requests for support materials from within the Western Cape.
- facilitate access to the *general public, including teachers and school children* to such resource materials, including uploading relevant information on the public-access website and servicing individual requests for support materials.

### 6.3.7.5 Key performance indicators

- APhase III provincial DRM education, training, research and public awareness programme has been developed that is consistent with the national DRM education and training framework and mechanisms established by the NDMC for standards accreditation, registration.
- DRM facilitators, instructors and presenters in the province have become qualified and have been accredited.
- There is widespread community-based DRM training in the Western Cape that is consistent with training standards.
- Approved service providers have been registered and are offering training services and products.
- Opportunities for internships and learnerships related to disaster risk management within provincial departments, the Cape Town Metropole and district municipalities have been identified and established.
- Disaster risk awareness is promoted at schools and in communities known to be at-risk.
- There is evidence in print and electronic media within the province of balanced media coverage on hazards, risks, disasters and DRM issues, including articles on DRM.
- Good relationships with media representatives have been established and are maintained in the Province.
- A provincial DRM research programme has been established that is consistent with the national DRM research agenda and is being implemented in the province.
- There is evidence of increasing DRM courses in the province, including those that reflect private-public partnerships and address the disaster risk needs of the Province of the Western Cape.
- The WCDMC has established an accessible DRM public awareness and information resource centre to support municipal, provincial and other role-players in the Western Cape

## 6.4 Establishment of a Western Cape DRM Education, Training and Public Awareness Support Service

The progressive expansion of provincial DRM education, training, research and public awareness initiatives in a phased process allows for the eventual establishment of a Western Cape DRM Education, Training and Public Awareness Support Service by the WCDMC. This will facilitate and support increasing DRM activities in the province as well as increased reporting needs to the NDMC.

### 6.4.1 Key performance indicators

The WCDMC has established an integrated DRM Education, Training and Public Awareness Support Service that supports expanding activities across the province and maintains close cooperation with the NDMC.

## Enabler 3: Funding Arrangements: Fourth Draft

### Objective

Establish mechanisms for the funding of disaster risk management in the province of the Western Cape.

### Introduction

The Disaster Management Act (DMA) requires that:

- the National Disaster Management Framework (NDMF) make provision for arrangements to fund disaster risk management by organs of state, including provincial and local government (section 7(2)(k));
- each province must establish and implement a framework for disaster management in the province by all provincial organs of state and other relevant organisations that must be consistent with the DMA and the NDMF (sections 28(1) and 28(2)).

Further, the NDMF points out that, given the provisions of the DMA, funding arrangements for all organs of state must be designed in a way that ensures adequate and sustainable funding of disaster risk management activities. Accordingly, this enabler outlines funding arrangements for disaster risk management within the Province of the Western Cape.



This enabler is based closely on the funding arrangements defined in *Enabler 3: Funding arrangements for disaster risk management* of the National Disaster Management Framework. However, it takes into account practical constraints which make the full implementation of the funding arrangements envisaged in Enabler 3 of the NDMF infeasible at present. It also takes into account the specific requirements of the Western Cape Provincial Government in the implementation of the Western Cape Disaster Management Framework (WCDMF).

## Outline

Section 7.1 summarises the legislative framework for funding arrangements within the Western Cape.

Section 7.2 reviews the basic policy principles underpinning funding arrangements within the Province.

Section 7.3 outlines the envisaged funding arrangements for provincial and municipal organs within the Western Cape.

Section 7.4 outlines the requirements for phasing-in of funding arrangements during the next several years.

Section 7.5 lists guidelines and regulations to be disseminated by the relevant national, provincial and municipal organs.

## 7.1 Legislative framework for funding arrangements

### 7.1.1 Primary legislation

The following primary legislation provides the context within which funding arrangements for disaster risk management in the Western Cape should be designed:

- *Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)*: Section 214(2)(j) of the Constitution specifies “the need for flexibility in responding to emergencies or other temporary needs” as one of the criteria for the equitable division of nationally collected revenue among the three spheres of government.
- *Disaster Management Act, 2002 (Act No. 57 of 2002) (DMA)*: The DMA requires arrangements to be made for funding of disaster risk management activities by provincial and municipal organs of state, within the context of national, provincial and municipal disaster risk management frameworks. Chapter 6 of the DMA also outlines principles to be applied in funding response, recovery and rehabilitation efforts. Further, section 56(3) of the DMA attempts to encourage budgeting for disaster recovery and rehabilitation through threshold funding. Sections 56 and 57 provide that access by organs of state to national funding for disaster recovery and rehabilitation may be made contingent by such organs having previously earmarked funds for disaster risk reduction activities.
- *Public Finance Management Act, 1999 (Act No. 1 of 1999, as amended) (PFMA)*: The PFMA regulates budgeting and financial management by national and provincial government departments, public entities and constitutional institutions. Further, sections 16 and 25 of the PFMA allow the Minister of Finance or the provincial MEC for Finance to appropriate funds from their respective revenue funds for use in emergency situations.
- *Municipal Finance Management Act, 2003 (Act No. 53 of 2003) (MFMA)*: Section 29 of the MFMA allows the Mayor of a municipality to authorise unforeseeable and unavoidable expenditure in an emergency. Further, section 29(2)(b) of the MFMA provides that unforeseeable and unavoidable expenditure may not exceed a percentage of the budget, which percentage must be prescribed by National Treasury in regulations.
- *Municipal Systems Act, 2000 (Act No. 32 of 2000) (MSA)*: In terms of section 10A of the MSA, the disaster risk management function imposes new constitutional obligations on local government. This means that the responsible Minister, MEC or other organ of state must take appropriate steps to ensure sufficient funding and capacity-building initiatives as necessary for the performance of the assigned function.

### 7.1.2 Further legislative and policy development

Funding arrangements for disaster risk management within the Western Cape must necessarily take note of continuing developments in the National Disaster Management Framework, and possible amendments to the DMA and other relevant legislation and associated regulations. In this regard, the following provisions of the DMA, all of which could have future implications for disaster risk management funding arrangements within the Western Cape, should be noted and their implementation monitored by the WCDMC.

#### 7.1.2.1 Policy and legislation on provincial disaster management

Possible future implementation of the following provisions of the DMA, and their potential implications for funding arrangements at provincial government level, will need to be monitored by the WCDMC:

- Section 6(1)(b): The Minister, by notice in the Gazette, “may from time to time amend the National Disaster Management Framework”.
- Section 14(1)(b): The Head of the NDMC may delegate any of the powers or assign any of the duties entrusted to the NDMC in terms of the DMA to “a provincial disaster management centre, by agreement with the MEC responsible for the department in which the centre is located”.
- Section 15(1)(e): The NDMC “must make recommendations regarding the funding of disaster management and initiate and facilitate efforts to make such funding available”.
- Section 30(1)(e): A provincial disaster management centre “must make recommendations regarding the funding of disaster management in the province, and initiate and facilitate efforts to make such funding available”.
- Section 39(2)(d): A disaster management plan for a province must “seek to develop a system of incentives that will promote disaster management in the province”.
- Section 39(2)(k)(iii): A disaster management plan for a province must contain contingency plans and emergency procedures in the event of a disaster, providing for “the procurement of essential goods and services”.
- Section 41(2)(l): If a provincial state of disaster has been declared, the Premier may make regulations or issue directions or authorise the issue of directions concerning “emergency procurement procedures”.
- Section 56(3): “The Minister may, in the National Disaster Management Framework, prescribe a percentage of the budget, or any aspect of a budget, of a provincial organ of state or a municipal organ of state, as the case may be, as a threshold for accessing additional funding from the national government for response efforts.” (Read in conjunction with Section 6(1)(b) of the DMA.)

#### 7.1.2.2 Legislation on municipal disaster management

Possible future implementation of the following provisions of the DMA, and their potential implications for funding arrangements at local government level within the Western Cape, will need to be monitored by the WCDMC:

- Section 6(1)(b): The Minister, by notice in the Gazette, “may from time to time amend the National Disaster Management Framework”.



- Section 14(1)(c): The Head of the NDMC may delegate any of the powers or assign any of the duties entrusted to the NDMC in terms of the DMA to “a municipal disaster management centre, by agreement with the municipality concerned”.
- Section 44(1)(e): A municipal disaster management centre “must make recommendations regarding the funding of disaster management in the municipal area, and initiate and facilitate efforts to make such funding available”.
- Section 52(1)(a)(vi): Each municipal entity indicated in the national or the relevant provincial or municipal disaster management framework must prepare a disaster management plan setting out “contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies”.
- Section 53(2)(k)(iii): A disaster management plan for a municipal area must contain contingency plans and emergency procedures in the event of a disaster, providing for “the procurement of essential goods and services”.
- Section 55(2)(l): If a local state of disaster has been declared, the municipal council concerned may make by-laws or issue directions or authorise the issue of directions concerning “emergency procurement procedures”.
- Section 56(3): “The Minister may, in the National Disaster Management Framework, prescribe a percentage of the budget, or any aspect of a budget, of a provincial organ of state or a municipal organ of state, as the case may be, as a threshold for accessing additional funding from the national government for response efforts.” (Read in conjunction with Section 6(1)(b) of the DMA.)

## 7.2 Policy principles underpinning funding arrangements

### 7.2.1 NDMF funding arrangements

The funding arrangements outlined in this Enabler are based on *Enabler 3: Funding arrangements for disaster risk management* of the NDMF.

As pointed out by Enabler 3 of the NDMF, the design of funding mechanisms for disaster risk management within the Western Cape should be informed by Shah’s criteria for the effective design of funding mechanisms to funding arrangements for disaster risk management, as follows:

- *Adequacy*: Provincial government departments and municipalities in the Western Cape should have adequate resources to perform their disaster risk management functions effectively.
- *Equity*: Funding should ensure that legislation is implemented equitably across municipalities.
- *Predictability*: Funding should be predictable, particularly in regard to intergovernmental transfers, over the term of the Medium-term Expenditure Framework (MTEF). Any allocations to municipalities should be disclosed timeously so that municipalities can include these in their annual budgets.
- *Administrative efficiency*: The cost of administering the funding mechanisms should be kept to a minimum. The funding mechanism should not impose new reporting mechanisms on provincial or municipal organs, but should integrate reporting processes into the existing reporting cycle.
- *Incentive effects*: Funding mechanisms should be designed so as to provide incentives for sound fiscal management and reduce the likelihood of inefficient fiscal practices. Perverse incentives should be prevented in order to discourage moral hazard behaviour by funding recipients.
- *Autonomy*: The transfer of funds between spheres of government should not undermine the autonomy of provincial and municipal organs of state.
- *Risk pooling*: Funding mechanisms should make provision for post-disaster recovery costs to be shared across the widest possible population rather than being a burden on the affected community.

### 7.2.2 Fiscal constraints

Fiscal constraints are an important factor in the design and implementation of funding arrangements for disaster risk management in the Western Cape. As the *Western Cape Medium-Term Budget Policy Statement 2005-2008* makes clear, the province’s main revenue source, the provincial equitable share transfer, is set to decrease in real terms by an annual average of 1.4 per cent over the next three fiscal years. Own revenue totals only about 6.1 per cent of total Provincial revenue at present. Consequently:

“... the 2005 medium-term fiscal framework is a tight one for the Western Cape, while the Province’s spending requirements that frame achieving iKapa Elihlumayo’s goals are considerable, to say the least. Given moderate growth of the revenue envelope and faced with expanding expenditure pressures, particularly with regard to social service provision, the Province is faced with a financing shortfall or ‘deficit’ of R213 million in 2005/06, R200 million in 2006/07 and R242 million in 2007/08” (Western Cape Provincial Treasury, 2005: 139).

One consequence of fiscal revenue constraints experienced by the Western Cape is that the requirement of Section 39(2)(d) of the Act, that a disaster management plan for a province must “seek to develop a system of incentives that will promote disaster management in the province”, is very difficult to fulfil. The only form of “incentive” which can feasibly be applied to provincial organs is the incentive to avoid sanctions for failing to comply with the requirements of the provincial disaster management framework and the directions of the Western Cape Disaster Management Centre (WCDMC). Financial incentives for provincial organs or for private sector organisations or individuals are unlikely to be feasible, except in terms of avoiding penalties for non-compliance with provincial ordinances regulating disaster risk management activities, e.g. failing to clear exotic vegetation in areas with high risk of fire.

An important consequence of the Province’s fiscal constraints is that the phasing-in of funding arrangements will need to be carefully and effectively implemented if disaster risk management activities are to be adequately financed in the short- and medium-term, as is discussed in Section 7.4 below.

## 7.3 Funding arrangements

Table 7.1 summarises the basic funding mechanisms for disaster risk management by the Provincial Government of the Western Cape and the province’s municipalities, based closely on *Enabler 3: Funding arrangements for disaster risk management* of the NDMF as approved in principle by National Treasury. These mechanisms are discussed in detail in the following sub-sections.

Table 7.1 Funding arrangements for disaster risk management in the Western Cape		
Activity	Funding source	Funding mechanism
Start-up activities (KPA 1, Enabler 1)	National government	Conditional grant for Western Cape with 85:15 counter-funding component
		Conditional grant for district and local municipalities, where necessary
Disaster risk management ongoing operations (KPAs 2 & 3)	Provincial Government Western Cape	Provincial departmental budgets
	New assignment to municipalities	Increase in the I (Institutional) component of the equitable share of local government
Disaster risk reduction (KPAs 2 & 3)	Provincial departments	Own budgets, augmented by applications for funding to NDMC for special national priority risk reduction projects
	District municipalities	Own budgets, augmented by applications for funding to NDMC for special national priority risk reduction projects
	Low-capacity, resource-poor municipalities	Additional funding released from the NDMC targeted at this category of municipality
Response, recovery and rehabilitation and reconstruction efforts (KPA 4)	Provincial government	Own budget, particularly for those departments frequently affected by disasters
		Access to Emergency Reserve Account once threshold is exceeded, on a matching basis
		Reprioritise within capital budget for infrastructure reconstruction
	Local government	Access to Emergency Reserve Account once threshold is exceeded
		Conditional infrastructure grant, i.e. Municipal Infrastructure Grant (MIG)
Education, training and capacity-building programmes (Enabler 2)	Provincial and local 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
Source: Adapted from Table 7.1 of “Enabler 3: Funding arrangements for disaster risk management”, in Dept of Provincial and Local Government (2005), <i>A policy framework for disaster risk management in South Africa</i> .		

### 7.3.1 Start-up activities

Key Performance Indicator (KPA) 1 of the Western Cape Disaster Management Framework (WCDMF) focuses on creating the institutional capacity within the relevant provincial organs and municipalities to give effect to intergovernmental co-operation in disaster risk management. It describes key responsibilities, outputs and the minimum infrastructural requirements of the WCDMC.

Enabler 1 focuses on the establishment of a comprehensive information management and communication system to ensure that all role-players within the Province have access to reliable hazard and disaster risk management information for the purpose of effective disaster risk management and risk reduction planning. The NDMF requires that the cost of developing an information management and communication system be included in the start-up costs for the WCDMC.

#### 7.3.1.1 Funding arrangements

The NDMF recommends that, to reduce the likelihood of perverse incentives in the system, conditional grants transferred to the Western Cape to fund start-up activities should be on a matching basis of 85:15, with the Province contributing 15 per cent. Since the inception of the NDMF and WCDMF, therefore, the Province has had an incentive to optimise existing infrastructure and reduce the costs of setting up the WCDMC.

The NDMF envisages that local government conditional grants will be disbursed to district municipalities to cover the start-up costs of establishing their municipal disaster management centres. Conditions for accessing the grant would be linked to the minimum infrastructural requirements for the setting-up of MDMCs. Given the existence of infrastructure for disaster risk management, the City of Cape Town would receive funding to cover only the additional costs required to establish its municipal disaster management centre (MDMC).

In view of the widely varying fiscal capacity of municipalities, the NDMF recognises that it will not be practical to apply matching funding. Instead, the implementation of the conditional grant would need to be monitored through the reporting cycle prescribed in sections 71 and 72 of the MFMA, and through the statutory provisions of the annual Division of Revenue Act.

The NDMF recognises that certain district municipalities, particularly those in poorer areas with little economic activity, may be unable to fund the ongoing operations of their disaster management centres. The NDMF therefore proposes that the local government conditional grant for disaster risk management should include a component for funding the ongoing costs in low-capacity and resource-poor district municipalities for a maximum of two years. A condition for accessing this component costs should be the development of a plan for covering ongoing operational costs beyond the two-year period.

Further, the NDMF proposes that the NDMC construct a composite index based on trading income and the existing capacity classification by National Treasury in order to categorise district municipalities according to their levels of own revenue, as follows:

- 'Class One' municipalities would include resource-poor district municipalities, with own revenue of less than R50 million per annum.
- 'Class Two' municipalities would include district municipalities with own revenue of R50 million to R150 million per annum.
- 'Class Three' municipalities would include resource-rich district municipalities with own revenue of over R150 million per annum.

The NDMF envisages that at the end of the phase-in period, municipalities should be able to cover the operating costs of their disaster management centres. An advantage of the conditional grant is that it would enable 'Class One' district municipalities to support their local municipalities in disaster risk management planning. The WCDMC would need to provide technical assistance to 'Class One' municipalities and monitor their progress in implementing the Act.

#### 7.3.1.2 Key performance indicators

- The minimum requirements for the establishment of the Western Cape Disaster Management Centre (WCDMC) have been costed.
- A conditional grant to fund the start-up costs of the WCDMC has been established and allocated.
- Conditions for access to grant funding for the WCDMC are based on guidelines issued by the NDMC on minimum infrastructure requirements for disaster management centres.

- Monitoring processes are integrated with the routine reporting cycle of the WCDMC and the Western Cape Department of Local Government and Housing (WCDLGH).
- The minimum requirements for the establishment of municipal disaster management centres within the Western Cape have been costed.
- Conditional grants to fund the establishment of municipal disaster management centres have been established and allocated.
- Conditions for access to grant funding for municipal disaster management centres are based on guidelines issued by the NDMC on minimum infrastructure requirements for disaster management centres.
- Monitoring processes are integrated with the routine reporting cycle of municipalities.

### 7.3.2 Disaster risk management ongoing operations

The Act requires provinces and municipalities to determine levels of risk and assess their vulnerability to these risks in order to implement disaster risk reduction strategies. The NDMF intends initial expenditures on disaster risk assessments to be offset by long-term benefits from well-designed risk reduction measures.

#### 7.3.2.1 Funding arrangements

The NDMF recommends that expenditure incurred in monitoring disaster risk must be part of the routine operation of the WCDMC and relevant Provincial departments, and must be budgeted for accordingly.

The NDMF further recommends that the costs of initial disaster risk assessments undertaken by municipal organs of state must be included in the start-up costs and funded through the local government conditional grant. The costs of ongoing disaster risk assessments must be included in the budgets of MDMCs.

#### 7.3.2.2 Key performance indicators

- The costs of disaster risk assessments are included in the budgets of the WCDMC and relevant Provincial departments.
- The costs of initial disaster risk assessments are included in municipal conditional grants.
- The costs of disaster risk assessments have been estimated and are included in the budgets of municipal disaster management centres in the Western Cape.

### 7.3.3 Disaster risk reduction

The Act requires provinces and municipalities to develop disaster management frameworks that guide disaster risk management activities, including planning and implementing disaster risk reduction projects and programmes.

Further, it should be noted that the following regulations promulgated in terms of the Act require the keeping of information and records that will facilitate effective costing and budgeting for disaster risk reduction activities:

- Regulation 20(5)(d): Every disaster management centre must have ready access to information on the estimated cost implications of identified prevention and mitigation projects and plans; and
- Regulation 20(6)(e): Once a prevention or mitigation plan has been initiated, data must be available on costs incurred to complete the project or plan.

#### 7.3.3.1 Funding arrangements

Disaster risk management planning must be included in the strategic plans of Provincial departments and in the IDPs of municipalities within the Western Cape. Sectoral plans must also include specific disaster risk management plans for the relevant departments within municipalities. These planning processes must be funded through the budgets of the relevant Provincial departments and municipalities, ultimately funded through the equitable shares of the Provincial government and an increase in the institutional component of the equitable share of local government.

To the extent that disaster risk management planning is effectively integrated into general IDP processes, however, municipalities should require little additional budgetary allocation for disaster risk management in the longer term. However, the development of the necessary capacity within certain municipalities to conduct both start-up and ongoing disaster risk management activities will probably require significant additional funding initially.

When additional expenditure is required to develop structural risk mitigation infrastructure, Provincial departments and municipalities must establish whether they could fund such projects from their own revenues. If they lack funds to implement these projects, they must include the costs of structural risk mitigation infrastructure in their three-year capital plans. Municipalities must prioritise these projects in their IDPs.

In terms of the NDMF, Provincial departments should be able to access funding for projects involving structural mitigation infrastructure from the Provincial Infrastructure Grant. National Treasury, in consultation with the NDMC, must develop criteria for evaluating whether a project can be classified as mitigation infrastructure. Province departments will need to follow existing procedures for accessing the grant, including submitting a business plan for each project. The WCDMC will need to provide the necessary technical support to Provincial departments to compile these business plans properly.

In the case of activities or projects aimed at preventing or reducing a national priority disaster risk, Provincial departments and municipalities may apply for additional funding from the NDMC, which may place a limit on the funding available per project. The budget of the NDMC must include an allocation for national priority risk reduction projects which should be used when the WCDMC, other provincial organs or municipalities within the Province request funds for such projects. The NDMC will develop criteria for the evaluation of requests from provinces or municipalities, and make these known to the WCDMC and municipalities within the Western Cape.

The WCDMC is required to provide technical assistance in disaster risk management planning to municipalities within the Province, particularly those resource-poor municipalities lacking management and staff appropriately skilled for these activities. Technical assistance forms part of the routine activities of the WCDMC, and will therefore be funded through the Centre's budget.

#### 7.3.3.2 Key performance indicators

- Budgets of Provincial departments and municipalities include the costs of routine disaster risk reduction measures and activities.
- Preparedness actions are funded through the recurrent budgets of the WCDMC, relevant Provincial departments and municipalities.
- Feasibility studies for capital projects include information drawn from disaster risk assessments and appropriate disaster risk reduction measures.
- Capital budgets clearly reflect the costs of disaster risk reduction.

### 7.3.4 Response, recovery and rehabilitation activities

Funding arrangements for disaster response and recovery and rehabilitation and reconstruction are detailed in Chapter 6 of the DMA.

Table 7.2 Potential sources of funding for disaster response and recovery activities, by disaster classification and sphere of government						
Category of response	Level of disaster	Progressive sources of funding for activities by:				
		Municipalities	Provincial governments	National government		
Early warnings	Local disaster	Existing budgets; MDMC disseminates early warnings regarding identified and monitored hazards	-	NDMC disseminates early warnings regarding identified and monitored hazards		
	Local state of disaster	-	Existing budgets; PDMC disseminates early warnings regarding identified and monitored hazards	NDMC disseminates early warnings regarding identified and monitored hazards		
	Prov. disaster	-	-	Existing budgets; NDMC disseminates early warnings regarding identified and monitored hazards		
	Prov. state of disaster	-	-	Existing budgets; NDMC disseminates early warnings regarding identified and monitored hazards		
	National disaster	-	-	Existing budgets; NDMC disseminates early warnings regarding identified and monitored hazards		
	Nat. state of disaster	-	-	Existing budgets; NDMC disseminates early warnings regarding identified and monitored hazards		
Response and recovery	Local disaster	(1) Municipal budgets	-	-		
	Local state of disaster	(1) Municipal budgets; then: (2) Municipal contingency fund	-	-		
	Provincial disaster	(1) to (2) above; then: (3) Provincial departmental budgets	(3) Provincial departmental budgets	-		
	Provincial state of disaster	(1) to (3) above; then: (4) Provincial contingency fund; then: (5) National dept. budgets; then: (6) Emergency Reserve Account	(3) Provincial dept. budgets; then: (4) Provincial contingency fund; then: (5) National dept. budgets; then: (6) Emergency Reserve Account	-		
	National disaster	(1) to (6) above	(3) to (6) above	(5) National dept. budgets; then: (6) Emergency Reserve Account		
	National state of disaster	(1) to (6) above	(3) to (6) above	(5) to (6) above; then: (7) Central Contingency Fund		

Table 7.2 (continued) Potential sources of funding for response and recovery activities, by disaster classification and sphere of government				
Category of response	Disaster classification	Progressive sources of funding for disaster response activities by:		
		Municipalities	Provincial governments	National government
Relief measures	Local disaster	(1) Municipal relief budget	-	-
	Local state of disaster	(1) Municipal relief budgets; then: (2) Municipal contingency fund	-	-
	Provincial disaster	(1) to (2) above; then: (3) Provincial relief budget	(3) Provincial relief budget	-
	Provincial state of disaster	(1) to (3) above; then: (4) Provincial contingency fund; then: (5) National Disaster Fund; then: (6) Emergency Reserve Account	(3) Provincial relief budgets; then: (4) Provincial contingency fund; then: (5) National Disaster Fund; then: (6) Emergency Reserve Account	-
	National disaster	(1) to (6) above	(3) to (6) above	(5) National Disaster Fund; then: (6) Emergency Reserve Account
	National state of disaster	(1) to (6) above	(3) to (6) above	(5) to (6) above; then: (7) Central Contingency Fund
Rehabilitation and reconstruction	Local disaster	(1) Existing municipal budgets; then: (2) Reprioritise within capital budgets	-	-
	Local state of disaster	(1) to (2) above; then: (3) Municipal contingency fund	-	-
	Provincial disaster	(1) to (3) above; then: (4) Provincial capital budgets; then: (5) Reprioritise within capital budgets	(4) Provincial capital budgets; then: (5) Reprioritise within capital budgets	-
	Provincial state of disaster	(1) to (5) above; then: (6) Provincial contingency fund	(4) to (5) above; then: (6) Provincial contingency fund	-
	National disaster	(1) to (6) above; then: (7) National dept. budgets; then: (8) Reprioritise capital budgets; then: (9) Emergency Reserve Account	(4) to (6) above; then: (7) National dept. budgets; then: (8) Reprioritise capital budgets; then: (9) Emergency Reserve Account	(7) National dept. budgets; then: (8) Reprioritise capital budgets; then: (9) Emergency Reserve Account
	National state of disaster	(1) to (9) above	(4) to (9) above	(7) to (9) above; then: (10) Central Contingency Fund
Source: Adapted from Disaster Management Act and National Disaster Management Framework				



In particular, section 56(3) of the DMA provides that the Minister of Provincial and Local Government may prescribe a threshold percentage of provincial or local government budgets as a condition for these organs accessing additional funding from national government for response efforts. Further, section 57 of the DMA provides that national government funding of post-disaster recovery and rehabilitation requested by a municipality or province may be made conditional on whether prevention or mitigation measures were taken by the latter organ.

In addition, National Treasury has proposed the implementation of an Emergency Reserve Account to provide emergency funding of disaster response and recovery operations, relief measures and rehabilitation and reconstruction by national, provincial and municipal organs of state once their response and recovery budgets have been depleted.

The operation of the funding mechanisms summarised above is outlined in Table 7.2, which is compiled and adapted from the provisions of the Disaster Management Act (RSA, 2003) and the National Disaster Management Framework (DPLG, 2005), together with proposals by National Treasury. Table 7.2 lists the sources which organs of state within each sphere of government (local, provincial and national) may access to fund disaster response and response activities, in the order in which the sources may be accessed, for a given level of classification of disaster or threat of disaster.

The basic principles governing access to the funding options outlined in Table 7.2 can be summarised as follows:

- *Subsidiarity in response and recovery:* Most disasters are first experienced locally, hence section 23(7) of the Disaster Management Act (DMA) provides that until a disaster is classified as a local, provincial or national disaster, it must be regarded as a local disaster. Municipalities must respond to disasters within their jurisdictions, and even if a disaster should be classified as a provincial disaster in terms of section 27 of the DMA the municipality or municipalities affected will need to continue to deal with it. Similarly, provinces affected by a disaster must continue to deal with it even if it should be classified as a national disaster. Hence Table 7.2 provides for simultaneous and continuing responses to provincial disasters by municipalities, and to national disasters by municipalities and provinces, and access to funding for disaster response and recovery is provided for on this basis.
- *Order of access to funding sources:* The general order of access to funding sources is:
  1. municipal budgets,
  2. municipal contingency fund,
  3. provincial budgets,
  4. provincial contingency fund,
  5. national budgets,
  6. Emergency Reserve Account,
  7. Central Contingency Fund.
- *Access to contingency funds:* In keeping with the NDMF's suggested procedure for assessment, classification, declaration and review of disasters (DPLG, 2005: 67-69, Figure 4.2), this framework suggests that contingency funds should be accessed only if a state of disaster is declared within the particular municipality, province or nationally. However, given the lead times involved, this procedure may not prove feasible in the long term. It is in any case desirable that the National Disaster Management Centre (NDMC) develop guidelines for the declaration of municipal, provincial and national states of disaster to improve the efficiency with which such decisions are made and implemented.
- *Effective use of funds:* Organs of state in a particular sphere should receive additional funding only if they can make effective use thereof.
- *Routing of funding requests:* All requests for additional funding should be routed through the DMC of the particular municipality or province. If funding is being sought from another sphere, the DMC should route the request to the relevant DMC within that particular sphere, i.e. either a provincial disaster management centre (PDMC) or the NDMC. For example, if a municipality within the Western Cape has exhausted both its disaster response and recovery budget and its municipal contingency fund, its municipal disaster management centre (MDMC) should request additional funding from the Western Cape Disaster Management Centre.
- *Threat of disaster:* A disaster does not have to be declared in order to obtain funding; the preventing of a hazard occurring must have priority. Section 1 of the DMA defines "disaster" as an occurrence which "causes or threatens to cause" injury, damage or disruption, while section 23(1) of the DMA provides that "when a disastrous event occurs or threatens to occur" the NDMC should determine whether the event should be classified as a disaster. Accordingly, the disaster classification levels applied in Table 1 include the threat of disaster along with a disastrous event that is occurring or has already occurred.
- *Distinction between Emergency Reserve Account and Central Contingency Fund:* The Emergency Reserve Account is a separate and distinct fund from the Central Contingency Fund. The Emergency Reserve Account is intended to be used as a consolidated, final option for the funding of specified disaster response and recovery activities by organs of state in all three spheres of government under foreseeable circumstances, and will apply its own streamlined set of access criteria and procedures. The implementation of the Emergency Reserve Account will obviate the need to use the Central Contingency Fund for disaster response and recovery, except in circumstances of exceptionally widespread or frequent disaster(s) within a single fiscal year causing the exhaustion of the Account itself, and necessitating the declaration of a national state of emergency and the release of funds from the Central Contingency Fund by Ministerial consent.
- *Subsidiarity in funding:* If a disaster is classified as a provincial disaster, this does not automatically entitle affected municipalities responding to the disaster to access provincial funds unless the municipalities' own disaster response and recovery budgets and contingency funds are exhausted. Similarly, the classification of a disaster as a national disaster does not automatically entitle affected provinces responding to the disaster to national funds unless the provinces' own disaster response and recovery budgets and contingency funds are exhausted.

#### 7.3.4.1 Funding arrangements

The main activities within the scope of disaster response and recovery include:

- early warnings;
- disaster response and recovery operations;
- relief measures; and
- rehabilitation and reconstruction.

##### (a) Early warnings

The development, implementation and dissemination of early warnings form part of routine planning procedures undertaken by Provincial departments and municipalities and must therefore be funded through their existing budgets.



## (b) Disaster response and recovery operations

Rapid response in the event of a disaster is crucial: funds need to flow quickly to support response and recovery efforts. A dedicated funding mechanism needs to be set up for disaster response and recovery operations, or resources will not be released quickly enough to maximise the effectiveness of response activities. The use of section 16 of the PFMA as a mechanism to release emergency funds from the central contingency fund is problematic as it requires ministerial authorisation, which increases the lead time between the declaration of a disaster and access to emergency funds.

National Treasury has therefore proposed the implementation of an Emergency Reserve Account, which is a fund aimed at:

- providing financial resources,
- at short notice,
- to organs of state responsible for dealing with disasters,
- to finance the following disaster response activities:
  - response and recovery;
  - relief measures; and
  - rehabilitation and reconstruction (including capital projects).

The Account is intended to fulfil the requirement identified by the National Disaster Management Framework (DPLG, 2005: 116) that: “A new mechanism needs to be developed to ensure that the Head of the NDMC can quickly and easily access funds from the National Revenue Fund for response and recovery operations”.

Funding from the Emergency Reserve Account may be accessed by national, provincial and municipal organs of state only once the response and recovery budgets of these organs have been depleted by the needs of significant incidents or disasters during the current fiscal year.

The Emergency Reserve Account is meant to eliminate the need for supplemental appropriations by budgeting in advance for supplemental disaster response and recovery funding, i.e. funding beyond the capacity of the response and recovery budgets of the organs concerned.

Provincial departments must budget for costs involved in disaster response and recovery. The NDMF envisages that once the threshold percentage has been reached, departments should be able to access funds from the Emergency Reserve Account. The NDMF prescribes a threshold percentage for provincial departments of 1.2 per cent of budgeted expenditure before additional funding can be accessed. Provincial disaster response and recovery operations would be funded from the Western Cape’s equitable share.

Should additional resources for response and recovery be needed, financial assistance can be requested from the Emergency Reserve Account, and then from national government’s central contingency fund. However, provision of this assistance may be made contingent on disaster risk reduction measures having been implemented by Provincial departments prior to the disaster concerned. Section 16 of the PFMA can be used to release funds from the central contingency fund. In this case, the NDMF envisages that Province would be required to provide matching funding of 11 cents for every 89 cents released by national government.

The NDMF envisages that the threshold percentages for municipalities to access additional funding would vary according to their revenue-raising capacity, as follows:

- Metropolitan municipalities: 0.5 per cent of own revenue.
- Municipality with own revenue of over R150 million (excluding metros): 0.6 per cent of own revenue.
- Municipality with own revenue of R50 million to R150 million: 0.8 per cent of own revenue.
- Municipality with own revenue of R1 million to R50 million: 1.0 per cent of own revenue.

National guidelines for the classification and declaration of states of disaster issued by the NDMC will help reduce the incentive for provincial and local governments to declare disasters with the intention of getting financial assistance from other spheres of government.

The NDMF recognises that funding arrangements must include a mechanism for allowing the rapid release of funds from the Provincial Revenue Fund for immediate response to a disaster. In doing so, the Head of the WCDMC would be accountable to the MEC, any withdrawal being approved by the provincial legislature. Treasury regulations would need to be revised accordingly for this mechanism to be able to operate.

Implementation of the full range of funding arrangements envisaged by the NDMF, as outlined in Table 7.2 above, will not be feasible in the short term due to practical constraints. In particular, the Province and most of the municipalities within it do not implement a contingency reserve. Instead, to the extent that disaster response and recovery are funded locally or provincially, they are commonly funded through reprioritising budgets. There are limits to which budgets can be prioritised—only the uncommitted parts of local or provincial budgets can be reprioritised in the short term.

Accordingly, the order of access within each sphere of government to funding options for disaster response and recovery operations operation that are feasible in the short-term is outlined graphically in Figure 7.2, see overleaf.

## (c) Relief measures

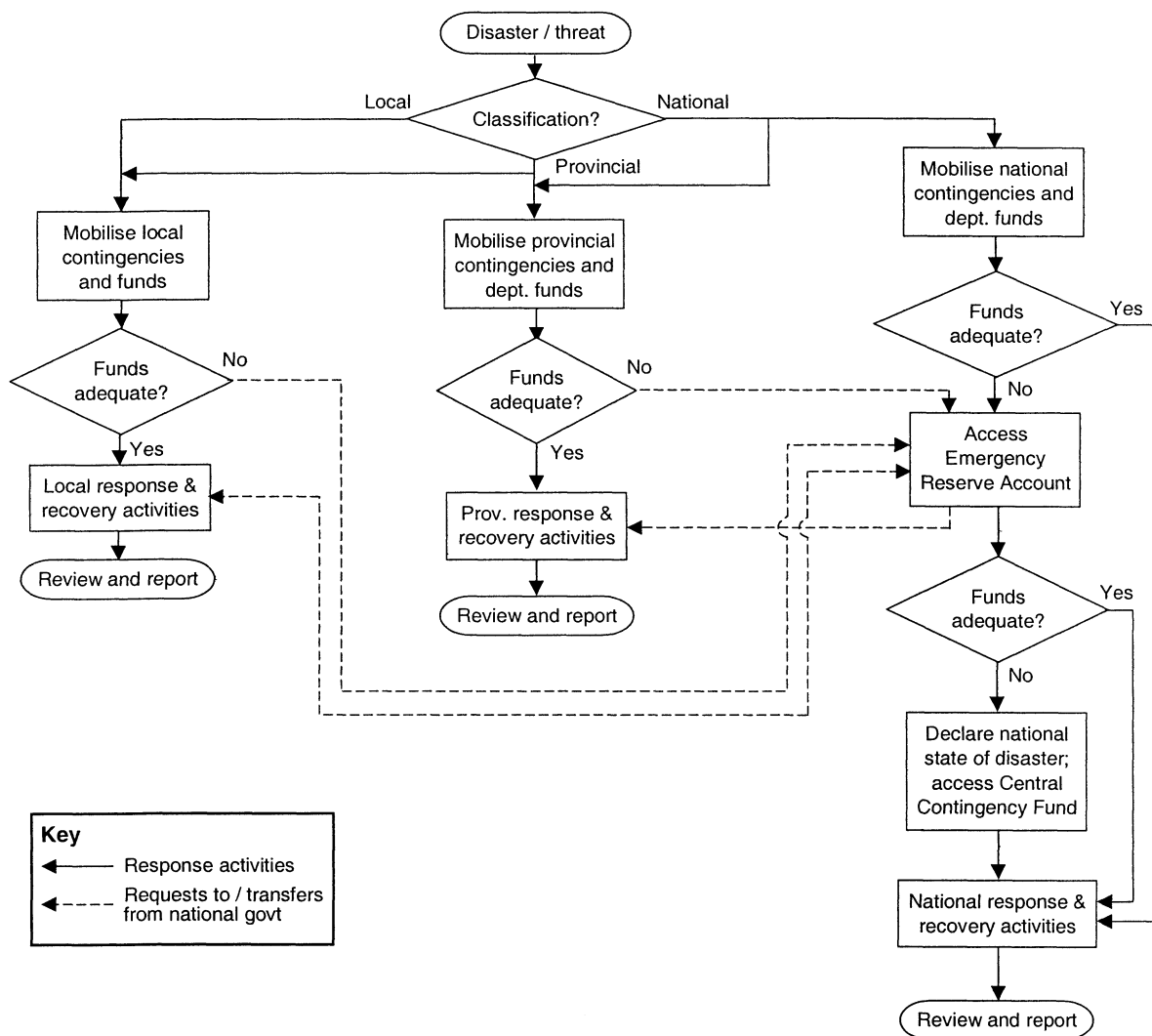
The aim of relief measures is to provide immediate access to basic necessities for those severely affected by disasters. The Provincial Department of Social Development and Poverty Alleviation provides relief to affected communities, and most municipalities have a mayoral discretionary fund for relief provision. These mechanisms should be adequate to fund relief, but Provincial and municipal relief inputs will need to be co-ordinated to ensure that relief measures flow rapidly to communities.

## (d) Rehabilitation and reconstruction

The Act places the onus for rehabilitation and reconstruction of infrastructure on the organ of state responsible for maintaining such infrastructure. The NDMF envisages that rehabilitation and reconstruction projects can be funded through:

- own budgets;
- conditional grants;
- reprioritisation within existing capital budgets; and
- access to the central contingency fund.

**Figure 7.2 Funding options for disaster response and recovery activities in the Western Cape**



Source: Adapted from National Disaster Management Framework and National Treasury (2006)

The NDMF requires that provincial departments frequently affected by disasters must fund rehabilitation and reconstruction costs from their own budgets. The Minister may choose to increase the threshold for specific provincial organs of state, which need to calculate the cumulative costs of disasters and submit the estimates to the NDMC. The NDMC will compile a list of organs of state to which special thresholds apply.

The NDMF suggests that rehabilitation and reconstruction costs of Provincial departments can also be funded through the Provincial Infrastructure Grant. In compliance with the DMA, access may be made contingent on evidence that risk reduction measures have been included in reconstruction projects in order to reduce future potential losses from disasters.

The NDMF envisages that municipalities can access funding for rehabilitation and reconstruction through the Municipal Infrastructure Grant (MIG). Since the MIG augments the capital budget as a whole rather than being a project-by-project grant, it should be possible for municipalities to use part of the allocation for post-disaster rehabilitation purposes.

Provincial departments and municipalities are required to develop three-year capital plans setting out their capital expenditure over the medium-term. Provincial departments, with the input of their MECs, can reprioritise their capital budgets in order to carry out the necessary rehabilitation and reconstruction projects. Shifting of funds between MTEF years and programmes must, however, comply with the relevant provisions of the PFMA.

Municipalities can follow the same process, as long as the municipal council approves the reprioritised budget. The council must consider whether reprioritisation of the budget will have substantial negative implications for service delivery in the long-term. Multi-year appropriations or shifting of funds between years or programmes must comply with the relevant provisions of the PFMA.

The NDMF recommends that access to the Emergency Reserve Account (and thereafter the central contingency fund) for rehabilitation and reconstruction should only be given for priority infrastructure (in accordance with criteria to be set by the NDMC) and used as a source of funding if other alternatives fail. The NDMF envisages that provincial departments could access funds from the central contingency fund once their own funds are exhausted on a 75:25 matching basis.

The NDMF envisages that municipalities may gain access to the central contingency fund for the rehabilitation and reconstruction of assets required to provide the minimum level of basic services. Motivations for such projects should be done on a case-by-case basis, and requests for funding submitted to the NDMC.

#### **7.3.4.2 Key performance indicators**

- The development, implementation and dissemination of early warnings are funded through the recurrent budgets of the relevant Provincial departments and municipalities.
- Response and recovery efforts are funded through budget threshold allocations.
- Provincial departments and municipalities have budgeted for threshold allocations.
- People, households and communities in the Western Cape affected by a disaster have immediate access to relief measures.
- Financial thresholds for rehabilitation and reconstruction funding in the Province and in municipalities have been set.
- Rehabilitation and reconstruction efforts are funded through a combination of own budgets, reprioritisation, budgeted threshold allocations and conditional grants.

#### **7.3.5 Enabler 2: Education, training, public awareness and research**

The NDMF recognises that education, training, public awareness and research are crucial to the success of disaster risk management and disaster risk reduction strategies, and that a range of such initiatives will need to be undertaken by state organs and other institutions.

##### **7.3.5.1 Funding arrangements**

###### **(a) Education and training**

Provincial departments already have significant budgets for the education and training of officials and policy-makers, and should wherever possible ensure that courses procured with these funds are accredited in compliance with SAQA and NQF regulations. Expenditure on accredited education and training courses can be recovered from SETAs. The costs associated with non-accredited education and training programmes must be funded through the budgets of the relevant organs of state.

Local governments, particularly resource-poor municipalities, are unlikely to be able to budget funds for non-accredited training. Generally, most of the education and training costs incurred by municipalities have been funded through the Financial Management Grant (FMG). The MIG, along with capacity-building grants, is being consolidated into the Municipal Systems Improvement Grant (MSIG), which should be accessible for accredited education and training on disaster risk management in accordance with appropriately defined unit standards.

###### **(b) Integrated public awareness strategy**

Provincial departments involved in public awareness programmes will need to budget for the development and implementation of programmes relevant to their functional areas. In addition, they should be able to access funds from the NDMC for specific programmes aimed at creating awareness around national priority disaster risks.

Municipalities will need to include public awareness campaigns in community participation processes, and should therefore not require additional funds for these programmes in the longer-term. Municipalities should also develop links with CBOs, NPOs and the private sector in order to share costs for dedicated public awareness programmes which focus on priority risks.

###### **(c) Research programmes and information and advisory services**

The NDMC will need to approach other government departments, donor organisations, the private sector, research foundations and NPOs to fund disaster risk management research at national and provincial levels, and will also need to allocate a portion of its budget to support research activities into priority risks and disaster risk reduction. Provincial departments regularly affected by disasters will also need to budget for research on priority risks and disaster risk reduction in consultation with the NDMC.

The cost of information provision and advisory services should be kept to a minimum and funded from the budget of the NDMC.

### 7.3.5.2 Key performance indicators

- There is documented evidence of an increase in expenditure on accredited education and training programmes.
- The WCDMC and Provincial Departments recover their expenditure on accredited education and training from the relevant SETAs.
- The WCDMC and all Provincial departments involved in public awareness budget for integrated public awareness programmes.
- Partnerships between municipalities, the private sector, NGOs and CBOs exist for the purpose of funding public awareness programmes and projects.
- Funds are available from government departments, international donor organisations, private companies, research foundations and NGOs for research programmes.

### 7.4 Phasing-in funding arrangements

The most significant challenge in regard to the funding of disaster risk management within the Western Cape is the effective and rapid phasing-in of the envisaged funding arrangements. The challenge is intensified by the acute constraints on the province's fiscal envelope, as discussed in Section 7.2 above.

Table 7.3 Interim sources of funding for disaster response and recovery activities in the Western Cape						
Category of response	Level of disaster	Progressive sources of funding for activities by:				
		Municipalities	Provincial governments	National government		
Early warnings	Local disaster	Existing budgets; MDMC disseminates early warnings regarding identified and monitored hazards	-	NDMC disseminates early warnings regarding identified and monitored hazards		
	Local state of disaster	-	Existing budgets; PDMC disseminates early warnings regarding identified and monitored hazards	NDMC disseminates early warnings regarding identified and monitored hazards		
	Prov. disaster	-	-	Existing budgets; NDMC disseminates early warnings regarding identified and monitored hazards		
	Prov. state of disaster	-	-	-		
	National disaster	-	-	-		
	Nat. state of disaster	-	-	-		
Response and recovery	Local disaster	(1) Municipal budgets; then: (4) Emergency Reserve Account	-	-		
	Local state of disaster	-	-	-		
	Provincial disaster	(1) Municipal budgets; then: (4) Emergency Reserve Account	(2) Prov. departmental budgets; then: (4) Emergency Reserve Account	-		
	Prov. state of disaster	-	-	-		
	National disaster	(1) Municipal budgets; then: (4) Emergency Reserve Account	(2) Prov. departmental budgets; then: (4) Emergency Reserve Account	(3) National dept. budgets; then: (4) Emergency Reserve Account		
	National state of disaster	-	-	(3) to (4) above; then: (5) Central Contingency Fund		

<b>Table 7.3 (continued) Potential sources of funding for response and recovery activities, by disaster classification and sphere of government</b>				
<i>Category of response</i>	<i>Disaster classification</i>	<i>Progressive sources of funding for disaster response activities by:</i>		
		<i>Municipalities</i>	<i>Provincial governments</i>	<i>National government</i>
Relief measures	Local disaster	(1) Municipal relief budget	-	-
	Local state of disaster			
	Provincial disaster	(1) above; then: (3) National Disaster Fund; then: (4) Emergency Reserve Account	(2) Provincial relief budget; then: (3) National Disaster Fund; then: (4) Emergency Reserve Account	-
	Prov. state of disaster			
	National disaster	(1) then (3) then (4) above	(2) then (3) then (4) above	(3) National Disaster Fund; then: (4) Emergency Reserve Account
	National state of disaster			(3) then (4) above; then: (5) Central Contingency Fund
Rehabilitation and reconstruction	Local disaster	(1) Existing municipal budgets; then: (2) Reprioritise within capital budgets	-	-
	Local state of disaster			
	Provincial disaster	(1) to (2) above	(3) Provincial capital budgets; then: (4) Reprioritise within capital budgets	-
	Prov. state of disaster			
	National disaster	(1) to (2) above; then: (7) Emergency Reserve Account	(3) to (4) above; then: (7) Emergency Reserve Account	(5) National dept. budgets; then: (6) Reprioritise capital budgets; then: (7) Emergency Reserve Account
	National state of disaster			(5) to (7) above; then: (8) Central Contingency Fund
Source: Adapted from Disaster Management Act and National Disaster Management Framework				

Once in place, the funding arrangements outlined in Section 7.3 above should fund disaster risk management activities by provincial and municipal organs adequately, equitably, predictably, efficiently and with appropriate incentive effects. However, there will inevitably be a lag before the full implementation of the mechanisms by National Treasury, other relevant organs of national government, Western Cape provincial departments, and municipalities within the Western Cape is possible, particularly for disaster response and recovery activities.

During this interim period, the funding arrangements will need to be phased-in in such a way that:

- Provincial and municipal disaster risk management activities are prioritised and appropriately sequenced, with the most important and most fundamental activities receiving funding in the earliest phases; and
- disaster risk management activities of Provincial departments which must be funded from own budgets are allocated a steadily increasing percentage of expenditure.

Interim funding arrangements for disaster response and recovery activities are outlined in Table 7.3.

## **7.5 Guidelines and regulations to be disseminated**

### **7.5.1 National guidelines**

The following guidelines would need to be compiled and disseminated at national level, for use by Provincial government and municipalities, in order to implement the funding arrangements proposed by the funding enabler of the NDMF:

- National guidelines and a composite index containing criteria for identifying low-capacity, resource-poor municipalities for the purpose of conditional grant allocations.
- National guidelines for evaluating applications for additional funding for projects and activities aimed at reducing priority disaster risks.
- National guidelines defining the thresholds and procedures applicable to provincial governments and municipalities for accessing additional funding from national government for response efforts.
- National guidelines containing criteria for classifying different types of infrastructure for the purpose of funding structural infrastructure mitigation projects.
- National guidelines containing criteria for identifying priority infrastructure for the purposes of rehabilitation and reconstruction.
- National guidelines for mechanisms to roll out funding for the implementation of the national disaster management framework.

Notwithstanding the above suggestions of the NDMF, implementation in the short term of the feasible funding arrangements discussed in Section 7.3 above will require development and dissemination of the following guidelines at national level:

- Guidelines on criteria and procedures for access to funding from the Emergency Reserve Account by Provincial departments.
- Guidelines on criteria and procedures for access to funding from the Emergency Reserve Account by municipalities.

### **7.5.2 Provincial guidelines and support activities**

The following guidelines would need to be compiled and disseminated by Provincial departments and agencies, particularly the WCDMC, WCDLGH and Provincial Treasury, in order to implement the funding arrangements proposed by the funding enabler of the NDMF:

- Guidelines on structuring, costing of and budgeting for disaster risk management programmes, formulated by the Provincial Treasury in consultation with the WCDMC and the WCDLGH, for distribution to Provincial departments and other organs who will need to implement and budget for disaster risk management activities.
- Guidelines on cost-benefit analysis of prospective disaster risk reduction programmes, formulated by the WCDMC and the WCDLGH in consultation with the Provincial Treasury, for distribution to Provincial departments and municipalities. These guidelines will need to promote uniform, consistent costing of losses due to disasters to support budgeting and the motivation of budget requests. In this regard, use should be made of existing research into losses caused by disasters.
- Guidelines by the WCDMC on the preparation of business plans by Provincial departments for risk reduction projects involving structural mitigation infrastructure.

Notwithstanding the above suggestions of the NDMF, implementation in the short term of the feasible funding arrangements discussed in Section 7.3 above will require development and dissemination of the following interim guidelines at Provincial level:

- Guidelines on budgeting by Provincial departments for disaster risk management programmes.
- Guidelines on budgeting by municipalities for disaster risk management programmes within municipal IDPs.

Apart from producing the above guidelines, the Provincial Treasury in consultation with WCDMC and WCDLGH will need to continue to inform, support and co-ordinate budgeting by Provincial departments for disaster risk management activities.

It will also be important for provincial departments and municipalities to develop cost estimates of DRM activities or alternatively ratios of risk reduction as soon as possible to cost and motivate budget applications.

In addition, as discussed in Section 7.1.2 above, further developments in policy and legislation regulating disaster management activities at provincial and municipal level, and the potential implications of these for disaster management funding arrangements, will need to be monitored by the WCDMC and WCDLGH in consultation with the provincial treasury and affected municipalities. Guidelines affected by such policy changes will naturally need to be updated and/or amended by the relevant issuing body. At provincial level the provisions of the Act that are relevant in this regard include:

- Section 39(2)(d): A disaster management plan for a province must “seek to develop a system of incentives that will promote disaster management in the province”. As discussed in Section 7.2.2 above, due to fiscal constraints there is little scope for the provision of positive financial incentives. However, a policy framework for the application of positive non-financial incentives for compliance with the disaster management framework, and financial sanctions against non-compliance, should be developed.
- Section 39(2)(k)(iii): A disaster management plan for a province must contain contingency plans and emergency procedures in the event of a disaster, providing for “the procurement of essential goods and services”. It will be important for the Provincial Treasury in consultation with the WCDMC and WCDLGH to outline the general nature of contingency plans and emergency procedures for the procurement of essential goods and services which might be implemented in the event of a Provincial disaster. This should greatly enhance the effectiveness of such measures in actual disaster conditions.



- Section 41(2)(l): If a provincial state of disaster has been declared, the Premier may make regulations or issue directions or authorise the issue of directions concerning “emergency procurement procedures”. It will be important for the Provincial Treasury in consultation with the WCDMC and WCDLGH to draft a clear framework defining the nature of the emergency procurement procedures which might feasibly be implemented in the event of a Provincial disaster, to facilitate their efficient and effective execution under disaster conditions.

### 7.5.3 Municipal guidelines

Municipal guidelines on disaster risk management funding arrangements that are affected in future by further policy development will naturally need to be updated and/or amended by the relevant issuing bodies. The provisions of the DMA that are relevant in this regard include the following:

- Section 52(1)(a)(vi): Each municipal entity indicated in the national or the relevant provincial or municipal disaster management framework must prepare a disaster management plan setting out “contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies”.
- Section 53(2)(k)(iii): A disaster management plan for a municipal area must contain contingency plans and emergency procedures in the event of a disaster, providing for “the procurement of essential goods and services”.
- Section 55(2)(l): If a local state of disaster has been declared, the municipal council concerned may make by-laws or issue directions or authorise the issue of directions concerning “emergency procurement procedures”.

### References

Department of Provincial and Local Government (DPLG) (2005), “Disaster Management Act (57/2002): A policy framework for disaster risk management in South Africa”, Notice No. 27534, *Government Gazette*, 29 April.

National Treasury (2006), *Emergency Reserve Account*, draft proposal.

Republic of South Africa (2002), *No. 57 of 2002: Disaster Management Act, 2002*.

Western Cape Department of Local Government and Housing (WCDLGH) (2005), *Western Cape Disaster Management Framework: Draft for discussion and stakeholder consultation*, mimeo, Cape Town: WCDLGH.

Western Cape Provincial Treasury (WCPT) (2005), *Western Cape Medium-term Budget Policy Statement 2005-2008*, Cape Town: WCPT.

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