

**NATIONAL DISASTER RISK MANAGEMENT EDUCATION
AND TRAINING FRAMEWORK**

NATIONAL DISASTER MANAGEMENT CENTRE

SOUTH AFRICA

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National Disaster Management Centre

ACRONYMS

Act	Disaster Management Act (Act 57 of 2002)
ARSDR	Africa Regional Strategy for Disaster Reduction
CAPS	Curriculum Assessment Policy Statement
CHE	Council on Higher Education
CoGTA	Ministry of Cooperative Governance and Traditional Affairs
CRED	Centre for Research on the Epidemiology of Disasters
DCOG	Department of Cooperative Governance
DG	Director-General
DRM	Disaster Risk Management
DRMETQA	Disaster Risk Management Education and Training Quality Assurance
DRR	Disaster Risk Reduction
GENFETQA	General and Further Education and Training Quality Assurance Act 2001 (Act 57 of 2001)
GFDRR	Global Facility for Disaster Reduction and Recovery
HFA	Hyogo Framework of Action 2005-2015
IDPs	Integrated Development Plans
LDCs	Least Development Countries
LGSETA	Local Government Sector Education and Training Authority
MDGs	Millennium Development Goals 2000
MDMC	Municipal Disaster Management Centre
NDMC	National Disaster Management Centre
NDMF	National Disaster Management Framework 2005
NDRMETF	National Disaster Risk Management Education and Training Framework 2013
NETaRNRA	National Education, Training, Research Needs and Resources Analysis 2010
NHRDS	National Human Resources Development Strategy 2009
NPHE	National Plan on Higher Education 2001
NQF	National Qualifications Framework 2008 (Act 67 of 2008)
NSDS	National Skills Development Strategy III (2011 – 2015)
PDMC	Provincial Disaster Management Centre
QCTO	Quality Council for Trades and Occupations
SAQA	South African Qualifications Authority
SDA	Skills Development Act 1998 (Act 97 of 198)
SDLA	Skills Development Levies Act 1999 (9 of 1999)
SETA	Sector Education and Training Authority

SFDCC	Strategic Framework for Development and Climate Change 2008
UNESCO	United Nations Education, Scientific and Cultural Organisation
WMO	World Meteorological Organisation
WPDM	White Paper on Disaster Management, 1999

DISCLAIMER

The discipline of ***disaster risk management*** has moved through various phases due to its adaptive scholarship and its interrelationship with many disciplines. In particular, there has been a realisation that this discipline is inseparable from the attendant development scholarship. This state of affairs is inevitable, as disaster management and development concepts and approaches change over time with changing theoretical perspectives and practical applications.

In this situation various terminologies have arisen to explain the discipline and its underscoring trajectories. Although there is global consensus on what disaster and risk management is about, there is still a wide range of terminology to explain the same concepts. Examples of such terminology are: disaster management; disaster risk management; total disaster risk management; disaster risk reduction; disaster reduction; etc. The argument around the use of these terms is merely academic, as there is consensus on the policy focus - and the practical application of the concepts is commonly understood.

To this end and for the purpose of the framework, the terms Disaster Risk Management (DRM) and Disaster Management are used interchangeably in the framework to refer to:

A continuous and integrated multi-disciplinary and multi-sector process of planning and implementation of measures aimed at:

- a) prevention of, or reducing the risk of disasters;
- b) mitigating the severity of consequence of disasters;
- c) emergency preparedness;
- d) a rapid and effective response to disasters; and
- e) post-disaster recovery and rehabilitation.

It is therefore, necessary to read these above-mentioned terminologies within the context of the above-mentioned definition, as contained in the Disaster Management Act 2002 (Act No. 57 of 2002).

ACKNOWLEDGEMENTS

The National Disaster Risk Management Education and Training Framework (NDRMETF) aims to ensure that disaster management education and training needs in the country are addressed in a uniform manner. It is developed in accordance with the National Education, Training, Research Needs and Resource Analysis (NETaRNRA) and takes into account the National Disaster Risk Profile (NDRP). The Framework also aims to ensure that planning is grounded on the needs and dynamics of all disaster management sectors and structures.

The process for developing the framework seeks to ensure an integrated and trans-disciplinary form of disaster management and takes into account the provisions and policies of legislation governing education and training, as well as disaster risk reduction requirements, for all affected disciplines.

The National Disaster Management Centre (NDMC), on behalf of the Department of Cooperative Governance, acknowledges the numerous contributions and the time spent by all the people involved in the development of the Framework.

Special appreciation is extended to the drafting team members, notably: Mr. Mmaphaka Tau (Chairperson of the Drafting Team), Dr. Mal Reddy, Mr. Schalk Carstens, Mr. Anthony Kesten, Mr. Mike Moja, Ms. Jennifer Lekalakala, Mr. Graeme Stickells, Mrs. Valentia Mashego, Ms. Rebone Tau, Mr. Dumisani Qada and Mr. Sibongiseni Ngema as well as the late Ms. Pat Reid. Other staff members who supported the development processes included Ntombifuthi Mutshweni, Mzamani Khoza and Mokhurumelo Kgwetiane.

Soliciting contributions to validate the content of the Framework was particularly enlightening and challenging. The NDMC would therefore like to express its appreciation to the many stakeholders for their time and participation in the bilateral consultation sessions, as well as in Provincial and National Consultative workshops.

Appreciation is again extended for the contribution of the following role player organizations and governance structures:

- The Provincial and Municipal Disaster Management Centres
- The National, Provincial and Municipal Disaster Management Advisory Forums
- The Council on Higher Education, the Department of Higher Education and Training, the Quality Council for Trades and Occupations, Umalusi, the South African Qualifications Authority, and the Local Government SETA for providing guidelines and guidance on the education and training quality assurance system.

Alongside the contributions of the above-mentioned stakeholders, the development of this framework would not have been possible without the support of the top management of DCOG and the NDMC team.

FOREWORD

In the past societies were able to use their indigenous knowledge systems to investigate and find ways and methods to protect their households, properties and livelihoods from extreme events and disasters. They improved the sighting, positioning and the building of their structures in ways that safeguarded their economies against destructive events. In some cases, their practices were influenced by their belief that disasters were acts of God, or evil spirits that cast spells on humanity owing to its refusal or inability to please the gods.

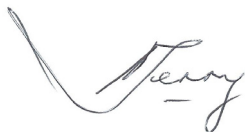
Through scientific inquiry and the knowledge explosion, perceptions on disasters were questioned while at the same time the truths about the origin and cause of disasters were investigated and discovered. Scientific research findings revealed that decades long human behaviour and activities were responsible for the occurrence of some types of disaster events, leaving millions severely affected. Given global climate change, scientific evidence has for a while indicated that extreme disaster events will increase exponentially in the future.

South Africa like most countries faces increasing levels of disaster risks of different origins, forms and magnitude. The resulting hazards have the potential to undermine the country's ability to reach its envisaged service delivery, poverty reduction and sustainable development objectives. The recent impact of various disaster incidents like floods, veld fires, oil spills, droughts and social conflicts are merely the tip of the proverbial iceberg.

The Disaster Management Act of 2002 provides for the “promotion of an integrated and coordinated system of disaster management (DM) with special emphasis on prevention and mitigation, by organs of state, statutory functionaries, and other role players involved in disaster management and communities”. Equally important is the National Disaster Management Frameworks call to promote a culture of risk avoidance amongst stakeholders through education, training and public awareness supported by scientific research.

To give effect to these policy provisions, I am pleased to present the National Disaster Risk Management Education and Training Framework (NDRMETF). This framework will ensure that education and training needs for disaster management in the country are addressed and in line with the national needs and disaster risk profile. The specific needs will address the feeder or foundational, integrative, and the execution skills requirements of the disaster management practitioners. This approach will position disaster management as a multi-sector, multi-disciplinary and integrative function, integral to all the strategic education, training and research priorities of the country.

The framework will contribute to ushering in an era of proactive DRM education and training based on risk-analysis-identified needs and priorities. This will also ensure that our vision of an integrated and coordinated DM system is realised.

A handwritten signature in black ink, appearing to read 'Ken Terry'. The signature is fluid and cursive, with a large initial 'K' and 'T'.

Mr. Ken Terry

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1. Introduction: South Africa's Disaster Risk Management Context

“As the world population grows and owns more material possessions, and as the built environment expands and accommodates such changes, greater numbers of people and property are put at risk from the forces of nature. Many people in the poorest countries now have a fragile dependence on a degraded resource base, which becomes progressively less able to withstand pressures from environmental forces. Human progress has also led to the emergence of ‘human-induced’ threats”

(Keith Smith, 2000).

As is the case in several countries across the world, South Africa faces increasing levels of disaster risk. The risks vary in origin, form and magnitude, and encompass a very wide range. First are weather hazards such as; drought, cyclones and severe storms that often trigger widespread hardships and devastations. Equally severe is the exposure of people who live in conditions of chronic disaster vulnerability: under-serviced informal settlements (- especially vulnerable to veld fires). The extensive coastline exposes the country to shipping routes with numerous marine and other forms of threats like oil spills, ship wreckage and heavy swells. Economic development or lack thereof also presents its own risks; the 2001 stampede in Ellis Park stadium and recurring xenophobic attacks are severe indictments of present conditions.

The Disaster Management Act (Act 57 of 2002) (hereinafter referred to as the Act) was promulgated on 15 January 2003 and provides for an integrated and co-ordinated disaster management framework. Since then, the country has witnessed growing implementation of risk reduction measures and strategies. Notable in these measures is the ongoing approach to Disaster Risk Management (DRM), which seeks to ensure that multi-disciplinary and integrated responses are the indelible hallmark of a successful application of the Act. This is of particular significance because it institutionalizes the vision of the Act for an integrated and co-coordinated system supportive of service delivery and development.

Increasingly, different stakeholders inside and outside the public sector have started to appreciate the importance of disaster and risk prevention

strategies. Several programmes aimed at achieving poverty reduction targets, improved service delivery from all government sectors, as well as the progressive realization of the Millennium Development Goals (MDGs) is integral to risk reduction and disaster prevention measures.

The overall embrace of primary and secondary disaster management across all government spheres, levels and sectors is a definite movement towards a successful disaster prevention framework. The framework has nine distinct measures, criteria and standards;

- Risk reduction,
- Disaster risk reduction planning,
- Institutional frameworks,
- Information systems,
- Resource base,
- Warning systems,
- Emergency and response management
- Public education and training, and
- Rehearsals

Critical to the application of the disaster prevention framework is the employment of continual education, training, public awareness and research, as central policy and implementation mechanisms for disaster risk reduction objectives.

The United Nations International Strategy for Disaster Reduction (UNISDR, 2002) asserts that education for disaster reduction and human security is a continuing process, offering individuals lessons to cope with hazards several times in their lives. It emphasises that education and public awareness on disaster risks must of necessity respond to society's changing needs and focus on empowering individuals throughout their lives. The critical foundation for educating all sectors of society on disaster reduction should be sound, with scientific, engineering and cultural orientation, as principles necessary to create sustainable development. The United Nations Education, Scientific and Cultural Organisation (UNESCO) has accepted this principle as its long-term goal (UNISDR, 2002).

There is a global consensus that the ability to achieve DRM is contingent upon a creation of a culture of disaster risk avoidance through integrated education, training and public awareness based on sound scientific research. Accordingly both the National Disaster Management Framework (NDMF) 2005 and the Hyogo Framework for Action (HFA) 2005 - 2015, advocate the need for a thorough-going education, training, public awareness and research programme to inculcate a culture of risk reduction and avoidance.

The NDMF (2005) calls for the immediate development of National Education, Training, Research Needs and Resources Analysis (NETaRNRA) to determine the DRM education, training and research needs of those involved across all disciplines, sectors and levels. The NETaRNRA must apply scientifically acceptable research principles and methods to audit existing resources and not merely rely on perceived needs. The National Disaster Risk Management Education and Training Framework (NDRMETF) should arise from a **rigorously developed** NETaRNRA.

The NDRMETF is meant to ensure that education and training needs are addressed in a uniform manner and in accordance with NETaRNRA and the National Indicative Disaster Risk Profile (NIDRP). It must communicate the Act, integrate the policy objective across the three spheres of government and define a comprehensive education, training, research and human resource capacity building guide, containing the requirements for a successful delivery of government policies on disaster management. The NDRMETF must ensure that education and training standards comply with the requirements of the National Qualification Framework (NQF) and any legislation governing education and training in the country.

The NDRMETF must establish an institutional framework that will straddle all spheres of government to provide professional advice for maintenance of professional standards across functional levels.

The institutional framework must ensure representation from institutions of learning (education and training) and the participation of credible individuals and institutions in the field of disaster management. It must provide criteria for the creation of a credible database of disaster management education and training programmes, providers and qualified individuals.

In order to realize the objectives of the NDRMETF as set out by the NDMF, this document, hereinafter referred to as the Framework, is developed and structured as follows:

- **Chapter 2** provides the context and orientation of the relevant legislation underpinning Disaster Risk Management in South Africa.
- **Chapter 3** outlines the underlying rationale and defines the problems this framework seeks to address.

- **Chapter 4** describes the education and training landscape and the need for integration and development of DRM qualifications
- **Chapter 5** outlines target areas for “mainstreaming” of disaster risk management education and training as a multidisciplinary discipline.
- **Chapter 6** specifies core competency requirements that should underpin DRM qualifications for practitioners and associated professions
- **Chapter 7** defines governance and quality assurance models to ensure successful execution of the framework.
- **Chapter 8** spells out the core values underscoring disaster risk management education and training.
- **Chapter 9** concludes with an outline of regional and international imperatives for disaster risk management education and training.

2. Legislative Context

South Africa is a constitutional democracy and the Constitution is the supreme law of the land. Section 24 of the Constitution of the Republic of South Africa 1996 provides that everyone has the right:

- a) to an environment that is not harmful to their health or well-being,
- b) to have the environment protected for the benefit of present and future generations, through reasonable legislative and other means that:
 - i. Prevent pollution and ecological degradation;
 - ii. Promote conservation; and
 - iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

These constitutional provisions find detailed but practical application in the Act. The Act was promulgated on the 15th January 2003. It provides for:

- An integrated and coordinated disaster risk management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, preparedness, rapid and effective responses to disasters, and post disaster recovery
- The establishment of national, provincial and municipal disaster management centres
- Disaster risk management volunteers, and
- Matters related to these issues

The processes that brought about the development of the Act were initiated by a catastrophic, but natural, disaster: severe floods that overwhelmed the poor communities in the Cape Flats in 1994. This triggered a consultative process that resulted in the first ever White Paper on Disaster Management in South Africa. The Disaster Management Act No. 57 of 2002 became a necessary and an important by-product of this far reaching and progressive policy document.

Based on the legislative documents, South Africa established herself as a nation at the forefront of DRM based within the public sector. DRM in South Africa is indeed an established public sector function within each sphere of government. The policy recognizes that the function goes beyond pure line-functional government responsibility. It is an activity that affects practically all disciplines; it is as much a functional domain of civil government as it is the responsibility of communities and individual households. The policy recognizes that the function is only effective when it is coordinated seamlessly with an integrated application. It is a multi-sector, multi-disciplinary function aimed at attending to a wide spectrum of risks arising from multivariate forms of hazards and vulnerabilities. The discipline of DRM seeks to build resilient communities and infrastructure, maintain sustainable livelihood and to prevent miseries and social hardships. This is an approach primarily meant to ensure that everyone enjoys their right to an environment that is not harmful to their health or well-being: one that is protected for the benefit of present and future generations, through appropriate legislation and other means.

Arising from this statutory and policy environment, the NDMF was developed in 1995. The NDMF comprises four key performance areas (KPA) and three supportive enablers. Both these KPAs and enablers serve specific legislative prescriptions. Amongst the enablers, enabler 2, calls for the promotion of a culture of risk avoidance among stakeholders by capacitating role players through integrated education, training and public awareness programmes informed by scientific research. This specific enabler gives practical application to section 15 (1) (h) of the Act (2002) that calls on the NDMC to promote disaster (risk) management capacity building, training and education throughout the Republic. The Act also provides the same measures to be extended to other southern African states, to the extent appropriate. Sections 30 (1) (h) and 44 (1) (h) of Act enjoin the same responsibility to the provincial and municipal disaster management centres.

These education and training policy requirements should be applied cognisant of the requirements as outlined and contained in the National Qualification Framework (NQF). Whereas the NDMC is primarily responsible for management of disaster risk management, the centre shall always seek guidance from those departments of government whose primary function is education, on matters of education and training. The observed need for

education and training for DRM, should be aligned to national education and training policies and their requirements. The National Disaster Risk Management Education and Training Framework (NDRMETF), is intended to achieve this alignment and ensure that the interests of DRM are expressed within the national education and training priorities.

In line with section 6.2 of the NDMF 2005, the NDRMETF aims to provide a policy instrument to ensure that DRM education and training needs are addressed in a uniform and standardised way - based on priorities as identified in the NETaRNRA and the NIDRP. This Framework will identify approaches for education and training aimed at integrating DRM within the different levels of education systems, and also identifies measures to maintain continued learning for volunteers and professionals serving the DRM discipline.

The overall legislative and policy framework that influences the NDRMETF and its applications are be the following:

- Disaster Management Act, 2002 (Act 57 of 2002)
- The National Disaster Management Framework, 2005
- Skills Development Act, 1998 (Act 97 of 1998)
- White Paper on Education and Training, 1995 (Act 196 of 1995)
- White Paper on Disaster Management, 1999
- The National Qualification Framework Act (NQFA) (Act 67 of 2008)
- The Revised National Curriculum Statement Grades R-9, 1997
- Hyogo Framework for Action, 2005-2015
- National Skills Development Strategy III, 2011
- Skills Development Levies Act, 1999 (Act 9 of 1999)
- Higher Education Act, 1997 (Act 101 of 1997)
- Higher Education Qualification Framework (HEQF), 2007

3. Problem Statement

3.1. Introduction

There is widespread global acknowledgement that the absence of DRM can derail progress towards the achievement of the Millennium Development Goals (MDG). International frameworks and strategies are adopted and updated to prevent and mitigate the impact of natural disasters. The central approach of these frameworks and strategies is towards the mainstreaming of DRM through integrated and coordinated DRM and sustainable development. The integration of disaster risk reduction measures, (i.e. disaster prevention, mitigation and preparedness), is an important measure towards sustaining existing development gains.

Since most countries in the world subscribe to the five (5) priorities of the HFA, they are implementing national programmes aimed at achieving defined risk reduction parameters. The UN member countries are equally entrusted with the responsibility to promote climate change strategies within their developmental agenda. This is more the case with respect to creating an enabling environment to stimulate and contribute to the development of knowledge, capacities and motivation needed for building disaster-resilient communities and infrastructure. The World Bank Groups Strategic Framework for Development and Climate Change recognizes this and emphasizes it by asserting that the building of resilient infrastructure, disaster relief and the preparedness and adaptation of new agriculture technologies and practices, are critical to counter exposure to climatic risks responsible for ever increasing natural hazards and vulnerabilities (ISDR Secretariat. 2005).

3.2. Inadequacies of Education and Training Programmes

Both the White Paper on Disaster Management (1999) and the NETARNRA report (2010) concluded that DRM training and community awareness activities are inadequate in South Africa. Where there is a semblance of any education and training, programmes are poorly coordinated and do not address the real capacity needs of communities and stakeholders. There are no comprehensive strategies and programmes nor any coherent and co-ordinated needs analyses to determine stake-holder's requirements. The

result is that there are huge disparities in standards and guidelines for formal and informal disaster management education and training. Even where such training programmes exist, the absence of independent monitoring and evaluation capacity almost invalidates the relevance of such programmes for disaster management. The challenge remains one of developing strategies and programmes that address current and future needs and shortcomings within the education and training field.

3.3. DRM Impact

The Centre for Research on the Epidemiology of Disasters (2011) demonstrates disturbing patterns of recorded disasters worldwide. According to the report, about 406 natural disasters and 234 technological disasters were reported worldwide in 2010. Although the number reported is closer to the annual average for the decade (402), the pattern shows an increase of 11% compared to the decade’s lowest annual figure of 367 reported in 2008 and 2009 respectively.

The Global Facility for Disaster Reduction and Recovery (GFDRR) (2012) also attests to the rapid increase in the number of natural disasters. The increase is attributed to climate related hazards with substantial impact on lives and the economies, especially for least developing countries (LDC). The most frequent of these disasters arise from climate hazards such as floods, storms, wildfires, landslides and droughts. Table 3.3.1. below shows the human statistical impact of these climatic hazards in different countries:

Table 3.3.1.

COUNTRY	TYPE OF DISASTER	SOCIAL IMPACTS ¹
China and Pakistan	Floods	60% of people affected
Somalia, Sudan, Zimbabwe, Chad, Niger, Thailand, Syria and Venezuela	Drought	32% of people affected
Haiti	Earthquake	3.7 million people affected
Chile	Earthquake	2.7 million people affected
China	Landslides	2 million people affected
China and Taiwan	Typhoon	1 and 2 million people affected respectively

Source: Centre for Research on the Epidemiology of Disasters (2011)

1. The figures depict confirmed cases of deceased people and those missing and confirmed fatalities.

A worldwide decade incident report in 2010 recorded 24 disasters that accounted for 92% of reported damages and amounted to ten billion in South African rands. This was even higher than the billions of rands of damages recorded in the disastrous year of 2005. The cost breakdown from this report is indicated in table 3.3.2. below:

Table 3.3.2.

TYPE OF DISASTER	ECONOMIC IMPACTS ²
Earthquakes	R416, 794, 000, 000 (40% of all reported damages)
Floods	R389, 612, 000, 000 (35% of all reported damages)
Storms	R244, 640, 000, 000 (more than 21% of all reported damages)
Drought	R29, 900, 400, 000
Wildfires	R16, 309, 300, 000
TOTAL	R1097, 255, 700, 000
Technological disasters	No damages recorded in 2010

Source: Centre for Research on the Epidemiology of Disasters (2011)

The impact indicated in this report on the Least Developed Countries (LDCs) is unmistakable. In many of these countries, the economies rely on climate-sensitive sectors. A common characteristic in these countries, is a lack of requisite capacity for proactive disaster management strategies. Their economic development and livelihood is dependent on agriculture and other similarly vulnerable primary sectors. The lack of capacity is worsened by absence of climate/disaster risk assessments, availability of weather prediction information, weak infrastructure such as poor communications networks and low public awareness arising from poorly timed advice on climate and early warning systems. In the immediate future, it may be unavoidable that climate change will increase the impact of disasters and risks due to changing weather conditions and increasing variability. As such, climate change will continue to pose greater risks in these LDC's.

In South Africa, Council for Research on the Epidemiology of Disasters statistics (2011) painted a stark picture of disaster impact over 91 years (1920 to 2011). Like most LDCs, South Africa suffers from a prevalence of natural disasters. A profile of South African disasters from 1920 to 2011 is demonstrated by table 3.3 below:

2. These are direct consequences to the local economy reflecting damage to infrastructure, crops, housing and indirect consequences showing estimated loss of revenues, unemployment, market destabilisation.

Table 3.3.3.

DISASTER TYPE	FATALITIES	TOTAL NO AFFECTED	COSTS IN SA RANDS
Flood	1 041	145 356	10, 526, 500
Epidemic	318	86 107	–
Storm	104	600 000	6, 456, 240
Drought	–	17 670 000	9, 223, 200
Technological	1 243	12 256	–
Wildfires	–	–	3, 965, 980

Source: Council for Research on the Epidemiology of Disasters statistics (2011)

The harmful impact of these disasters played out in loss of life, damage to infrastructure, disruption of schooling and other social services.

Recent data reveals that in 2010, heavy rains were experienced across southern Africa with varying degrees of flood damage. More recently, in 2011, heavy flooding was again experienced across 8 provinces. The flooding followed severe drought that had significantly affected a large part of the country. Recovery and rehabilitation costs resulting from the floods alone were recorded at over 3 billion ZAR. During the 2012 and 2013 calendar years, the country suffered from unprecedented snow in areas where such occurrence had little recorded historical precedence - such as Gauteng (NDMC: 2012).

It is therefore a necessity that the country invest in proactively building a culture of risk avoidance through an integrated, education, training, and public awareness informed by scientific research, as a primary source of DRM knowledge. Education and training is a critical element for broader public awareness of DRM. At the highest level it equips any society with the appropriate application of tools, techniques and strategies for disaster risk reduction.

The NDRMETF is critical to ensure that there is a co-ordinated approach in the delivery of DRM. Building of institutional capacity is equally important for sustained progress. The foundation already exists and can serve as an institutional building block, but that needs reinforcement in an all-out effort to foster a culture of disaster risk reduction, based on a firm education and training platform.

4. Access and Progression to DRM Education and Training

The mission of the National Skills Development Strategy (2011-2015) is to reduce inequalities by enabling effective participation in the economy and society by all South Africans and increased access to high quality and relevant education and training and skills development opportunities - including workplace learning and experience. The emphasis is to be placed on education and training programmes with relevance, quality and sustainability, to ensure positive and maximum impact on poverty reduction and inequality. The expectation of the DRM finds expression in the strategy's articulation of some its primary goals, amongst others: the establishment of credible institutional mechanism for skills planning; increasing access to occupationally-directed programmes; increasing public sector capacity for improved service delivery; and supporting the building of a developmental state.

The reforms in the Basic Education system are intended to accommodate diversity and lay the foundation for a single national curriculum at both primary and secondary school levels. The 2011 Department of Basic Education National Curriculum Assessment Policy Statement (CAPS) provides for a single, comprehensive and concise policy replacing the subject and learning area statements, learning programme guidelines and subject assessment guidelines for all subjects in the Curriculum Statements Grades R-12.

This new policy provides for the promotion of DRM requirements within the primary and secondary education system. It aims to ensure that the school curriculum produces learners that can identify and solve problems, collect, analyse, organise and evaluate information critically as well as demonstrate an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation.

Similarly, the National Plan for Higher Education in South Africa (2001) identified five core policy goals and strategic objectives necessary for achieving transformation of the higher education system in the country. Some of the policy goals are:

- To increase access to, and to produce graduates with, the skills

and competencies necessary to meet the human resource needs of the country.

- To ensure diversity in the institutional landscape of the higher education system through programme differentiation to meet national and regional skills and knowledge needs.
- To build high-level research capacity, including current research strength and to promote research linked to national development needs.

The relationship between DRM, on the one hand, and specific DRM education and training, on the other, is acknowledged. Hence globally, with particular attention to the HFA (Priority Action 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels) the focus is on information, education, training, research and public awareness, towards a culture of disaster prevention and resilience.

The Africa Regional Strategy for Disaster Risk Reduction (2004) highlights the centrality of specific strategies for disaster risk reduction. The document emphasises that knowledge and information development requires identification and strengthening of academic institutions to spearhead training and research in disaster risk reduction. It also requires authorities to increase and integrate public awareness into education systems. In doing this, it is crucial that the authorities:

- Facilitate development of dedicated curriculum in the disaster risk reduction;
- Expand the role of media, and
- Improve information dissemination and communication

To achieve the above strategies, the NDMC should play a strategic role in encouraging public, business and government agencies to undertake a wider participation in learning and access to higher education in DRM. Education institutions, and in particular higher education, should provide accessible research and information as well as certifiable qualifications in DRM.

Accumulating learning experiences, developing lifelong skills and competencies is integral to successful DRM. The current SA environment where many DRM practitioners acquire skills and knowledge through practical work experience without institutionalized formal training programmes, should

be addressed urgently. The education system should provide programmes that enable career pathways through integration of learning within and between different education sub-frameworks.

There is a need for greater coordination among public and private education institutions as well as employer organisations to address and align skills development more closely with economic development imperatives.

The training for DRM is not unrelated to sustainable development, neither is it the preserve of the government agency responsible for disaster management. It is a significant component of all disciplines dealing with infrastructure development, health, environmental conservation, development planning, and their respective associated disciplines.

In light of the above, and the current education and training paradigm, it is important to prioritise the development of a unique education system that recognizes DRM as central to various qualifications as well as being a significant entry requirement into some occupations.

The education and training programmes should also recognise existing experiences gained outside the formal education environment and therefore seek to:

- Promote access to information and career guidance
- Promote access through recognition of non-formal and informal learning
- Improve access through flexible entry requirements and RPL
- Acknowledge all forms of learning (formal and non-formal) by providing alignment within the National Framework of Qualifications
- Enable portability and transfer of credits, particularly within the DRM sector, but also across sectors
- Allow transfer of credit for learning already recognized in an existing qualification or programme to a new qualification
- Promote articulation and progression, and
- Offer access to skills programmes or short courses.

5. Mainstreaming Uniform Education/Training and Community Awareness Approach to DRM

5.1. Introduction

The National Education Training and Research Needs and Resources Analysis (NETaRNRA) report (2010), asserts that:

“Whilst the Disaster Management Act (Act No. 57 of 2002), and the accompanying National Disaster Management Framework 2005 are globally recognised to be exemplary in their content, they are in danger of being made impotent by the poor implementation progress by national departments as well as private organisations. This is because the findings of the NETaRNRA have revealed the gaps that exist in the implementation of the DMAct and Framework and the current resources available to train DRM practitioners as well as to educate and empower learners and the communities they live in”

(NETaRNRA Report, 2010).

The focus and concern of DRM practice is as broad and diverse as disasters are, both in their origin and consequent impact. It brings about an interaction of the elements of the natural, social and technological developments, which have a varied and not easily predictable impact on the environment. It is argued that this is a probabilistic construct, which if it is to be understood and dealt with, requires a multidisciplinary approach and multidisciplinary training. The aggregate resulting impact from random occurrences of disaster is a pattern of socioeconomic vulnerability and exposure that requires an interdisciplinary approach.

In addition, disaster risk management is a complex issue that is influenced by various factors such as the political, social, economic, environmental, technological, legal and institutional dynamics and changes. Thus, the necessity to approach the function from an integrated perspective is paramount.

Consequently, the art of disaster reduction, preparedness, mitigation, response and rehabilitative actions is a forged integration and holistic conceptualization and application of knowledge elements, which are drawn from physical, social and health sciences. Equally important is the accommodation of critical information drawn from technical and

management disciplines for positive influence on the disaster risk reduction strategies. This coupled with the reality that disasters have no boundaries and that disaster impacts on all facets of the environment (social, political, economic, technological, physical, and the like), further justifies the need for different disciplines and sectors to adopt a team and/or collective approach in promoting effective disaster risk management.

In furtherance of this approach to DRM, Van der Waladt and Du Toit (1999:62), emphasise that ensuring an overlap and interaction between disciplines is essential, and that exchange of influences is crucial in strengthening the core principles and practices of the primary discipline. DRM is therefore based on the practical application of the concepts of risk reduction/prevention, mitigation, post-disaster recovery (response, relief, rehabilitation and reconstruction). The primary and critical focus for DRM is on the underlying causes of disasters, the conditions of disaster risk reduction, the vulnerability of the community/society and the environment.

5.2. The Focus of the National Disaster Management Education and Training Framework

The NDMF (2005: 151) requires this framework to be uniform and should therefore provide a direct and proportional education and training response to the NETaRNRA and the NIDRP.

The NDMF requires the NDRMETF to focus on the areas outlined below:

- Communication of the Act and the national disaster management framework,
- Establishment of the uniform qualification criteria,
- Establishment of procedures for registration and certification of education and training of professionals and programmes, and
- Integration of disaster risk management training, education and research into strategic areas

The education and training framework must also serve as a mechanism for recording available education and training programmes and courses in both South Africa and other countries in southern Africa

NDMF (2005; 151)

5.3. The NETaRNRA

5.3.1. Training Needs

The joint statement made by the Ministers of Education and Labour in 2007 invoked changes in the South African skills development arena. Importantly the statement announced the establishment of the Quality Council for Trades and Occupations (QCTO) and the introduction of the registration and development of occupational qualifications linked to the Organisational Framework for Occupations (OFO). The occupational qualifications development process or occupational learning system's implications as outlined by the QCTO are critical for the professionalising of disaster risk management in the country.

The NETaRNRA report found that there is a lack of clearly defined responsibilities for both disaster management practitioners and line functionaries. Therefore, the QCTO model of occupation based learning programmes is critical to defining the Disaster Management Occupations and the requisite training requirements for each occupation.

Capacity building should be needs driven and fit the purpose of the specific occupation's outputs. Alongside the position of the NDMF, the NETaRNRA report also confirms the need for a body that will accept the responsibility of defining industry skills needs (e.g. the Capacity Building and Research Technical Task Team) and training approaches to address the identified needs. It contends that such a body will ensure that training and development is streamlined within the disaster management fraternity.

5.3.2. School Education

The NDMF expresses significant need for education for disaster risk management professionals and practitioners in associated professions as well as the integration of disaster risk reduction education in primary and secondary school curricula. It is equally critical therefore that all places of learning should integrate disaster management into the curriculums across all learning programmes and ensure that qualified educators with relevant training present the subject. The NDMC should develop mechanisms to support National Minister of Basic Education in strengthening disaster risk reduction in the school curriculum. Child education will develop future adults

who are aware of hazardous situations within their community and, most importantly are interested in the ways of reducing disaster risk through the proper application of sustainable developmental practices (DMISA: 2007) .

From inception, efforts must not be spared to develop plans to assist schools that are situated in disaster prone areas. Information to identify these schools can be sourced from the National Education Infrastructure Management System (NEIMS) and provided to the NDMC, PDMCs and MDMCs to help school management and teachers with risk profiling and disaster risk reduction planning. Information from the National Policy for an Equitable Provision of an Enabling School, Physical Teaching and Learning Environment, and the National Minimum Norms and Standards for School Infrastructure should be sourced from the provincial DoE to contribute to planning of security management and disaster risk management.

Disasters do not discriminate, but schools that are generally not prone to disasters, based on the risk profile, will not have a sense of urgency to include disaster risk reduction and management related activities in safety and emergency planning, or go beyond what is expected by National Curriculum Statement directives. The NDMC must, therefore, participate in the development of the National Curriculum Statement to ensure that disaster risk management permeates various subjects and that practical exercises are included in the normal teaching at the schools.

The National Curriculum Statement directives should address disaster risk management concepts and principles and enable an appreciation of a basic understanding and knowledge through skilful and creative application within the classroom. At the lower level within the schooling curriculum, emphasis should be laid on a basic awareness and understanding of, for example, tsunamis, earthquakes, tornadoes, floods and fires. It must not only be focused on the strengthening of behaviour that limits or prevents disaster risk in an unthinking way. The behavioural changes should form part of progressive learning from primary into the secondary school curriculum. Guidance training should emphasise disaster risk reduction behaviour through the use of common case studies that learners can relate to with ease.

Awareness training is important to children, as part of the annual schooling programme, and observance of the International Day for Natural Disaster

Reduction on the second Wednesday of October can be made compulsory for all schools. The day could be used as a vehicle to promote a culture of disaster reduction, including disaster prevention, mitigation and preparedness among all school children. The PDMCs and MDMCs should have dedicated practitioners who collaborate with schools to plan the launch of the annual observance of International Day for Natural Disaster Reduction.

The NDMC should establish a specific unit responsible for collaboration with the Department of Basic Education with the primary purpose of disaster risk reduction in schools at national, provincial and local level. The same unit should be made responsible for interaction with schools and provide guidance and support to school management and teachers in disaster risk profiling and in developing disaster risk reduction planning. The risk data collected by means of NEIMS should be included in/overlaid with risk profiles developed by disaster management centres at national, provincial and local level. This will serve as critical source of information for awareness raising and learning.

5.3.3. Higher Education

The higher education system is meant to create knowledge for higher level understanding of concepts and their application. The system provides education in a variety of professional areas and a base for specific occupational orientation. It also provides a unique entry point into the discipline of disaster management. The NETaRNRA report found that several learning programmes are provided specifically for disaster management practitioners. At lower NQF levels several unit standards were identified, (but none led specifically to any disaster management qualifications).

Concomitantly, providers that offer these unit standards were identified. Currently the establishment of the QCTO has provided an opportunity for revision of these qualifications and unit standards.

This development presents an opportunity for the NDMC to drive a process that will establish a new set of occupational qualifications and formalize occupational categories in line with the sector requirements. This opportunity will also present a window through which the sector can contribute towards ensuring horizontal and vertical integration and mobility for practitioners and professions associated with DRM. The establishment of the Technical

Advisory Body will be appropriate to add momentum to the development of qualification standards and ensuring accreditation of both the programmes and providers for different qualifications. The Technical Advisory Body will immediately assume the role of a community of expert practitioners charged with the function of developing these qualifications.

Formalisation of education and training at a higher education level is important for the confirmation of the trans-disciplinary nature of the disaster management profession. The training programme will determine the application of the trans-disciplinary nature of disaster risk management practices and advance the theory and practice that enable the potential practitioners to appreciate the world of work within the field. The mainstreaming of disaster risk management will also provide for modular training programmes that enable professionals in related fields to acquire additional training that will enable them to appreciate the field and practice, and enable them, in their own right, to contribute to the overall field. This approach should focus on teaching disaster risk management as a dedicated field, as well as in the integration of disaster risk management content within the existing specialised disciplines in the natural, health sciences, and also in management and other technical professions.

FORMS OF EDUCATION AND TRAINING		THE NATIONAL DISASTER RISK MANAGEMENT EDUCATION AND TRAINING FRAMEWORK (NDRMETF) OUTLINE		
Higher Education (NQF 5 – 10) <ul style="list-style-type: none"> Formal Qualification Occupational Qualification Part Qualifications Short Courses 	Providers <ul style="list-style-type: none"> Universities Technical Universities FET Colleges Private Training Institutions Schools (Public and private) NGOs Government institutions 	Target <ul style="list-style-type: none"> Disaster management Practitioners Government Officials NGOs Staff Community Workers Volunteers Communities 	Legislative Requirements <ul style="list-style-type: none"> Disaster Management Act 2002 (Act 57 of 2002); Skills Development Act 1998 (Act 97 of 1998); The National Qualification Framework Act (NQFA) 67 of 2008; Levies Act, 1999 (Act 9 of 1999); Higher Education Act 1997 (Act 101 of 1997) 	Roles for Disaster Management Structures <p>National</p> <ul style="list-style-type: none"> Develop parameters for database to register /non/ accredited and programmes, learners and institutions Develop and finance programmes Participate in qualification development programmes Set up guidelines for Technical Advisory Body Establish National technical Advisory Body Promote development of learning programmes Conceive and manage national campaigns Establish profile of risk prone communities Participate in establishing engagement strategy for curriculum development and implementation Develop community awareness training programmes <p>Provincial</p> <ul style="list-style-type: none"> Collect and input data for programmes Establish Provincial Technical Advisory Body Monitor education and training programme Finance learners into learning programmes Participate in establishing engagement strategy for curriculum development and implementation Implement community awareness training
Workplace Programmes (NQF 1 – 9) <ul style="list-style-type: none"> Accredited Experiential Learning Accredited Mentorship/ internship Workshop Conferences In-service training 	Providers <ul style="list-style-type: none"> Universities FET Colleges Accredited Facilitators Experts 			
Community Awareness Training (NQF 1 – 4) <ul style="list-style-type: none"> Accredited Certificate Programmes Workshops Campaigns: Mass communication Drills and rehearsals 	Providers <ul style="list-style-type: none"> Disaster management Practitioners Government officials Accredited private experts 			

5.3.3.1. Research Capacity

Research is a crucial element of education and training, and a source of knowledge and information. Since DRM is multidimensional, the information and knowledge about the impact and sources of impending risks and disaster it collects and collates is invaluable.

In order to develop risk profiles for different forms of disaster risks, and the communities that may be affected, NDMC should facilitate research in various forms of disasters together with the sharing of resultant knowledge with communities. Communities on the other hand have developed various coping mechanisms for dealing with disasters. These mechanisms can serve as a source of information that can prove significant for disaster avoidance and reduction.

Research also serves as an important element in the sharing of experiences in various forms of development planning and implementation. Existing experiences of development planning are an important resource for strategic government institutions tasked with huge infrastructure development, human settlement and other related fields. Such information, based on tested experiences of other similar programmes around the world, assists with the development of best practices for risk avoidance and reduction.

International and national higher education institutions are best placed to manage research programmes. These institutions possess the requisite capacity (in the form of students and academic staff with invaluable skills and access to historic information) that can be useful to the disaster management practitioners and communities.

Resource limitation and limited interest in research can be a serious constraint factor. It is important for the NDMC to engage research and academic institutions in the analysis and development of useful research that can be beneficial to communities. This same information can be a useful tool to raise public awareness and a resource for education and training programmes. To fulfil these functions, NDMC must:

- Audit and build a database of existing research on various disaster management topics, spanning prevention, avoidance, mitigation and rehabilitation.

- Build capacity and collaborative research agendas with various research and academic institutions
- Develop a National Disaster Management Research Agenda that will benefit national priorities as well as the Southern Africa region as a whole
- Build financial capacity to finance the National Disaster Management Research Agenda
- Build internal capacity and collaboration for research analysis, dissemination and sharing
- Establish a resourced Information and Advisory Service that is comprised of specialist functionaries and a library facility

RESEARCH FRAMEWORK			
A RESEARCH PROGRAMME FOR SOUTHERN AFRICA	AN INFORMATION AND ADVISORY SERVICE		
<p>NDMC must:</p> <ul style="list-style-type: none"> • Ensure Building of a credible relationship (and database) of scientific community and institutions • Build collaborative relationship with research and academic institution on research priorities based on the national risk profile • Set capacity for continuous audit of existing research initiatives locally and internationally • Mobilise funding for priority research with NT, national and international agencies • Build internal capacity for research, research supervision and mentoring 	<p>National Disaster Management Research Agenda</p> <ul style="list-style-type: none"> • Audit and build a database of existing research impacting on Southern Africa • Build consensus on priority research areas for the country and Southern Africa • Collaborate with other agencies for research work on the National Disaster Management Research Agenda. • Monitoring and evaluation of research projects to ensure that national research objectives are met 	<p>DM Information Management Service</p> <ul style="list-style-type: none"> • Build readily accessible information database on DM • Specific Content Areas: <ul style="list-style-type: none"> - Disaster Incidents lessons learnt- & best practices - Repository of risk factors by other government agencies - Specific risks profiles revealed by research - Historical data on specific incidents and projections 	<p>DM Advisory Services</p> <ul style="list-style-type: none"> • Establish a national network of library Resource Centre on disaster risk reduction • Specific Focus Areas <ul style="list-style-type: none"> - Serve as a strategic resource for research in Southern Africa - Provides technical advice to governments in the Southern Africa - Communicate disaster risk reduction measures and advice - Collect and avail information on early warning systems

The National Disaster Management Research Agenda should be built around NETaRNRA, NDRP as well as impending and projected national risks.

5.4. Skills and Competencies

FEEDER SKILLS FOUNDATION SKILLS	INTEGRATION SKILLS		EXECUTION SKILLS	
GET/FET Learner	HET Learner	Line Functionary	Practitioner	Executioner
What life skills are needed? Grade R-3 Grade 4-9 Grade 10-12	Ability to incorporate / integrate DRM into field of study	Ability to incorporate / integrate DRM into line function	Ability to apply DRM to field of work	Ability to apply DRM to occupation
Learner Competence Descriptors			Occupational Competence Descriptors	

The above model depicts disaster management content integrated within various qualifications programmes to ensure that they all reflect a fair balance of the specific sector-based content and the disaster risk reduction element associated with the discipline.

The core knowledge areas underscoring disaster (risk) management education and training, serve as the foundational measures for the implementation of disaster risk management education and training nationally, with regional and international portability. These core knowledge areas are structured according to the current management paradigm and its implementation across all spheres, levels, sectors and disciplines. They, therefore, centre around three key strategic categories for disaster management education and training as identified in the NETaRNRA.

Disaster risk management pivots on creating a shared sense of responsibility, as emphasised above, and these focus areas are elaborated in the sections that follow.

5.4.1. Feeder / Foundation Skills

The foundation skills can be provided in the form of learning programmes to communities; to volunteers and to DRM line functionaries.

5.4.1.1. The children in school can learn sharing and living a basic

disaster life skill orientation which is not only focussed on knowledge, but also behaviour that either reduces disaster risk or the effect of disaster. Children who are taught about hazard and associated risks play an important role in saving lives and protecting members of the community in times of crisis. They are also good teachers for parents and their peers (Twigg: 2004).

- 5.4.1.2. Communities and volunteers in support of inculcating a broad-based culture of risk avoidance that includes life skills and disaster risk reduction behaviour.
- 5.4.1.3. Line Functionaries not previously exposed to DRM, can integrate this basic knowledge into their line function.

5.4.2. Integration Skills

- 5.4.2.1. This focuses on Higher Education and Training (HET) learners having the ability to relate their field of study to disaster risk management / reduction or disaster responses.
- 5.4.2.2. Employees in the workplace, i.e. line functionaries having the ability to relate their sphere of expertise to disaster risk reduction / management or disaster response. Support will also be provided through the Disaster Management Education and Training Assessment Quality Partner to achieve integration. The line function practitioners within disaster management centre must mentor learners who wish to gain workplace experience in the field of disaster management. Moments of disaster occurrences must be used as learning opportunities for learners within the fields of disaster management (work placement programmes for internships and learnerships).

5.4.3. Execution Skills

- 5.4.3.1. This focuses on disaster risk officials and managers functioning at various levels in government structures, and other stakeholders, to ensure reduced disaster risk and effective, co-ordinated disaster responses.
- 5.4.3.2. This would be done through formal education and formal and non-formal skills programmes. Support will also be provided

through the Disaster Management Education and Training Assessment Quality Partners to ensure the development and introduction of specialised academic and training programmes to address training needs on an on-going basis.

5.4.3.3. Various skills to be created will centre on the basic disaster risk management practices necessary for the implementation of the National Disaster Management Framework covering all four Key Performance Areas (KPAS):

- Integrated Institutional Capacity for disaster management;
- Disaster risk assessment;
- Disaster risk reduction planning
- Disaster response and recovery measures

And three Enablers (ENs):

- Information management and communication
- Education, training, public awareness and research
- Funding arrangements for disaster risk management

The above-mentioned skills will be complemented by generic management skills necessary to support disaster management practices such as, but not limited to:

- Financial planning and management
- Project design and management
- Presentation skills
- Logistics management
- Human resources management
- Change management and strategic leadership
- Report writing
- Statistical analysis
- Mapping skills
- Conflict management
- Time management
- Life skills

The above mentioned knowledge areas and skills categories should be imparted across all learning levels and through all four (4) sources of learning as identified in the Framework, namely: education, training, public awareness and research.

5.5. Public Awareness and Community Resilience

5.5.1. Community Awareness Training

Training programmes for communities must focus on disaster risk awareness, disaster risk reduction, voluntarism and preparedness. Local indigenous knowledge needs to be incorporated into training programmes aimed at local communities. Where appropriate, communities must be given the opportunity to modify and enhance training programmes through the inclusion of indigenous knowledge, practices and values, and the incorporation of local experience of disasters and disaster risk management. Indigenous knowledge must also be harnessed and incorporated into needs analyses and course development processes.

Community activism and resilience is critical to disaster risk reduction efforts. In order to ensure maximum effort in integrating disaster management into daily community experiences, various practitioners in disaster management centres across all three spheres of government and in the disaster management fraternity, should work closely with disaster prone communities.

The focus must on imparting knowledge and skills on disaster risk reduction and avoidance as much as it must be on preparedness. In consultation with different stakeholders within and outside government, the NDMC should develop an Integrated National Disaster Management Public Awareness Strategy that is infused with the activities of all role-players. The strategy should seek to utilize the existing service delivery programmes and the capacity in government and outside, to build public awareness about DRM.

Amongst others, the strategy should seek:

- To mainstream the framework at national, provincial, and local disaster management centres and have it incorporated into key sector departments' policies and implementation programmes. .e.g. municipal Integrated Development Plans (IDPs), sector programmes. Execution of government programmes should

involve communities in planning and programme implementation.

- To inform policy makers within sector departments and raise awareness of the framework so that they acknowledge the need to take ownership and enhance DRM within their operations and agencies in order to ensure sustainable service offerings. This will also enable practitioners within disaster management and government as a whole to address community concerns about inherent vulnerabilities in planned service improvement programmes.
- To confirm that DRM is integral to the performance assessment of operational work done within all government departments, and it being a strategic competency area for all functionaries of government during planning and programme execution.
- To build a common operational platform with all non-governmental institutions with value offerings related to DRM. Understanding the framework should enable the whole disaster management fraternity to be sensitive to community participation during their respective programmes.
- To build sustainable partnerships with stakeholders and community organizations to ensure integrated risk awareness and reduction, and a common operational platform.
- To build a ward based corps of volunteers based on structured awareness raising programmes to sustain role clarification for disaster risk management, mitigation and response.
- To create Disaster Management Centres across all spheres of government that coordinate activities to raise awareness of profiles and predictions of risk likely to impact on specific communities. Constantly occurring calamities like floods, veld fires, snows and acute climatic changes with negative impact on vulnerable communities, should benefit from high profile awareness campaigns to help community preparedness, mitigation and other responses.

The approach necessary to achieve this objective should be founded on strategies and values integral to the implementation of the Act and its policy framework. Key to ensuring the application of these values and strategies is the need to devote sufficient human resources and appropriate education and training to sustain an all-out effort for community resilience and awareness.

INTEGRATED NATIONAL DISASTER MANAGEMENT PUBLIC AWARENESS STRATEGY

Role of NDMC	Strategic Messengers:	Interface Mechanisms
<ul style="list-style-type: none"> • Ensure that the strategy is integral to normal operations of government agencies in their service delivery offerings, especially infrastructure development • Ensure that the strategy optimise the use of existing channels of communication between government and the public in promoting disaster management • Strategy must use messages close to the public to maximise impact • Ensure that the strategy is based on scientifically determined national risk profile 	<ul style="list-style-type: none"> • Large infrastructure delivering agencies • Minister and MECs responsible for DRM • NDMCs, PDMC and MDMCs • Community Volunteers • Partners <p>Platforms</p> <ul style="list-style-type: none"> • Conferences • IDP public consultation meetings • Imbizo meetings • Print and Voice Media • Social Media • National Awards • Annual World Disaster Risk Reduction Day • National Campaigns: Disaster Risk Management 	<ul style="list-style-type: none"> • Emergency Communication System • Early warning systems • Websites • Information Management System • Public Adverts • School/Announcements • Government Circulars • Communication links and EWS <p>Target</p> <ul style="list-style-type: none"> • All spheres of government and departments • Schools • Disaster Prone Communities • General Public • Media • DRM role players in the region • Cross border communities and governments

5.5.2. Volunteer Capacity Building Programmes

Special training programmes must be developed for persons interested in volunteering their services within local communities and wards. The focus of these programmes should address issues such as disaster risk reduction, vulnerability assessments, greater awareness of risks and hazards and general preparedness and response.

The training programmes should constitute integral elements for orientation of the community based government functionaries (e.g. community development workers, community works programme, etc) in order for them to serve as 'force multipliers' by, in turn, training others. The NDMC, PDMCs and MDMCs should build adequate budget provision for protective clothing, travel expenses and incentives for community volunteers. The risk profiles of different communities should be used to focus training of volunteers so that their energies are managed sparingly, relative to the costs of the training programmes and the time volunteered by them in the provision of community services. Both the PDMCs and MDMCs must maintain a record of all volunteers trained in such programmes for submission to the NDMC for inclusion in the national database.

5.6. Performance Indicators

- Development of supplementary DRM content in the National Curriculum Statement
- Development of awareness schooling programme for recognition of International Day for Disaster Reduction
- Development of DRM Research Agenda
- Establishment of occupational categories and career pathway for DRM practitioner
- Audited and built database of existing research on various disaster management topics spanning prevention, avoidance, mitigation and rehabilitation.
- Built capacity and collaborative research agenda with various research and academic institutions
- Built a financial capacity to finance the National Disaster Management Research Agenda

- Built internal capacity and collaboration for research analysis, dissemination and sharing
- Established a resourced Information and advisory Service that comprised of specialist functionaries and a library facility
- Development of a framework for recruitment and training of DRM community volunteers
- Development of a training programme for community development workers

6. Uniform Disaster Management Qualifications

6.1. Introduction

Disaster Management is a collaborative effort between government and communities. The practice requires the creation of opportunities for streamlined education and training that can account for the complex reality of the antecedents and the consequences of different forms of vulnerability, disasters and risks. Provision of education and training should also take into account the different roles played by functionaries based on their expertise in different educational disciplines.

Government is central to effective disaster management. The NDMF however acknowledges that government efforts alone are inadequate to attend to the requisite risk reduction strategies. The field of disaster management requires all round awareness-raising, and training and education programmes that integrate the DRM practices within the health, natural and physical sciences, as well as within the technical and management professions. The education programmes must be designed as part of the formal system and geared to address NETaRNRA and aligned to NQF requirements. Immediate attention should be given to a dedicated focus on the needs of the functionaries within the Disaster Management and strategic and operational environments.

6.2. Education for disaster risk management professionals

In line with the NQF, the NDMC should coordinate the inputs of the other two spheres of government to ensure that specific education programmes enhancing the professional career path in disaster risk management are developed and implemented by the two Quality Councils: Council for Higher Education (CHE) and Quality Council for Trades and Occupations (QCTO). Existing unit standards must be reviewed and enhanced for the development of full qualifications taking into account different levels within which the profession is structured both in government and in the private sector. The focus of education should prioritise disasters commensurate with the scientifically established risk profile of the country and the whole of southern Africa.

The “new” disaster management professional will require core knowledge and a host of skills which would support the practice and provide a foundation for life-long learning. The core knowledge areas should cover understanding of the disaster (risk) management concepts, terms, definitions, environments and applications. Composite parts and sub-parts that define disaster phenomena in their varied complexities should be addressed as well as comprehensive understanding of all the legislation that directly relates to disaster management and those that indirectly impact on the functioning of disaster management practice. Learning programmes should address standardised methods of planning and implementation practice, risk assessment and response methodologies.

The post-graduate should emphasise interpretation, analysis and application of various elements constituting the disaster management continuum. Critical skills in this regard should cover:

- research
- critical thinking
- decision making
- the ability to network and build coalitions
- negotiation and conflict resolution
- political considerations and systems

The NDMC should play a central role in the coordination of expert input necessary for the development of a unique curriculum that responds to existing national and regional needs. The curriculum must focus on the development of technical capabilities necessary to address the full scale of the disaster management continuum. The table below demonstrates the depth of knowledge and application that should be covered to produce practitioners equipped for effective exposure to the world of work.³

3. The levels reflected in the tables included in 6.2 and 6.3 have been adapted from SAQA's NQF Level Descriptors (which is a statement describing learning achievements, types of learning outcomes and assessment criteria at a specific level) to provide clear guidance on future qualification development requirements for DRM.

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
<p>Basic Practitioner able to enforce law and order, and possess elementary knowledge of specific field of disaster management</p>	<p>4</p>	<p>Scope of knowledge: Demonstrate a fundamental knowledge base of the most important areas of one or more fields or disciplines related to disaster risk management, in addition to the fundamental areas and understanding of the key terms, rules, concepts, established principles and theories in one or more fields DRM.</p> <p>Knowledge literacy: Demonstrate an understanding that knowledge in one field can be applied to related fields.</p> <p>Method and Procedure: Demonstrate an ability to apply essential methods, procedures and techniques of DRM to a given familiar context and an ability to motivate a change using relevant evidence.</p> <p>Problem solving: Demonstrate an ability to use own knowledge to solve common problems within a familiar context and an ability to adjust an application of a common solution within relevant parameters to meet the needs of small changes in the problem or operating context with an understanding of the consequences of related actions.</p> <p>Accessing, processing and managing information: Demonstrate a basic ability in gathering relevant information, analysis and evaluation skills and an ability to apply and carry out actions by interpreting information from text and operational symbols or representations.</p> <p>Producing and communicating information: Demonstrate an ability to communicate and present information reliably and accurately in written and in oral or signed form.</p> <p>Context and systems: Demonstrate an understanding of the organisation or operating environment as a system within a wider context.</p> <p>Management of learning: Demonstrate a capacity to take responsibility for own learning within a supervised environment and a capacity to evaluate own performance against given criteria.</p> <p>Accountability: Demonstrate a capacity to take decisions about and responsibility for actions and a capacity to take the initiative in addressing any shortcomings found.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
Intermediate DRM professionals	5	<p>Scope of knowledge: Demonstrate an informed understanding of the core areas of DRM, disciplines or practices and an informed understanding of the key terms, concepts, facts, general principles, rules and theories of the field, discipline or practice.</p> <p>Knowledge literacy: Demonstrate an awareness of how knowledge (or a knowledge system) develops and evolves within DRM or operation.</p> <p>Method and Procedure: Demonstrate an ability to select and apply standard methods, procedures or techniques within the field, discipline or practice, and to plan and manage an implementation process within a well-defined, familiar and supported environment.</p> <p>Problem solving: Demonstrate an ability to identify, evaluate and solve defined, routine and new problems within a familiar context, and to apply solutions based on relevant evidence and procedures or other forms of explanation appropriate to the field, discipline or practice - demonstrating an understanding of the consequences.</p> <p>Accessing, processing and managing information: Demonstrate an ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task, and to apply basic processes of analysis, synthesis and evaluation on that information.</p> <p>Producing and communicating information: Demonstrate an ability to communicate information reliably, accurately and coherently, using conventions appropriate to the context, in written and oral or signed form or in practical demonstration, (including an understanding of and respect for conventions around intellectual property, copyright and plagiarism, including the associated legal implications).</p> <p>Context and systems: Demonstrate an ability to operate in a range of familiar and new contexts, demonstrating an understanding of different kinds of systems, their constituent parts and the relationships between these parts, and to understand how actions in one area impact on other areas within the same system.</p> <p>Management of learning: Demonstrate an ability to evaluate one's own performance or the performance of others and to take appropriate action where necessary; and take responsibility for one's own learning within a structured learning process and to promote the learning of others.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Accountability: Demonstrate an ability to account for your own actions, to work effectively with and respect others, and, in a defined context, to take supervisory responsibility for others and for the responsible use of resources where appropriate.</p>
DRM professional	6	<p>Scope of knowledge: Demonstrate detailed knowledge of the main areas of DRM, disciplines or practices, including an understanding of and an ability to apply the key terms, concepts, facts, principles, rules and theories of that field, discipline or practice - to unfamiliar but relevant contexts; and demonstrate knowledge of DRM or areas of specialisation and how that knowledge relates to other fields, disciplines or practices.</p> <p>Knowledge literacy: Demonstrate an understanding of different forms of knowledge, schools of thought and forms of explanation within the DRM or in operation, and an awareness of knowledge production processes.</p> <p>Method and Procedure: Demonstrate an ability to evaluate, select and apply appropriate methods, procedures or techniques in processes of investigation, or application within a defined context.</p> <p>Problem solving: Demonstrate an ability to identify, analyse and solve problems in unfamiliar contexts, gathering evidence and applying solutions based on evidence and procedures appropriate to DRM discipline or practice.</p> <p>Accessing, processing and managing information: Demonstrate an ability to evaluate different sources of information; to select information appropriate to the task, and to apply well-developed processes of analysis, synthesis and evaluation to that information.</p> <p>Producing and communicating information: Demonstrate an ability to present and communicate complex information reliably and coherently using appropriate academic and professional or occupational conventions, formats and technologies for a given context in DRM.</p> <p>Context and systems: Demonstrate an ability to make decisions and act appropriately in familiar and new contexts, demonstrating an understanding of the relationships between systems, and of how actions, ideas or developments in one system impact on other systems.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Management of learning: Demonstrate an ability to evaluate performance against given criteria, and accurately identify and address one's own task-specific learning needs in a given context, and to provide support for the learning needs of others where appropriate.</p> <p>Accountability: Demonstrate an ability to work effectively in a team or group, and to take responsibility for one's own decisions and actions and the decisions and actions of others within well-defined contexts, including the responsibility for the use of resources where appropriate.</p>
Senior DRM Officials and Managers	7	<p>Scope of knowledge: Demonstrate integrated knowledge of the central areas of one or more fields of DRM, disciplines or practices, including an understanding of and an ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories of that field, discipline or practice; and</p> <p>Demonstrate detailed knowledge of DRM or areas of specialisation and how that knowledge relates to other fields, disciplines or practices.</p> <p>Knowledge literacy: Demonstrate an understanding of contested knowledge and an ability to evaluate types of knowledge and explanations typical within the DRM or practice.</p> <p>Method and Procedure: Demonstrate an understanding of a range of methods of enquiry in a field, discipline or practice, and their suitability to specific investigations; and</p> <p>Demonstrate an ability to select and apply a range of methods to resolve problems or introduce change within DRM practice.</p> <p>Problem solving: Demonstrate an ability to identify, analyse, evaluate, critically reflect on and address complex problems, applying evidence-based solutions and theory-driven arguments.</p> <p>Accessing, processing and managing information: Demonstrate an ability to develop appropriate processes of information gathering for a given context or use; and the Ability to independently validate the sources of information, and evaluate and manage the information.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Producing and communicating information: Demonstrate an ability to develop and communicate one's own ideas and opinions in well-formed arguments, using appropriate academic, professional, or occupational discourse.</p> <p>Context and systems: Demonstrate an ability to manage processes in unfamiliar and variable contexts, recognising that problem solving is context-and system-bound, and does not occur in isolation.</p> <p>Management of learning: Demonstrate an ability to identify, evaluate and address one's own learning needs in a self-directed manner, and to facilitate collaborative learning processes.</p> <p>Accountability: Demonstrate an ability to take full responsibility for one's own work, decision making and use of resources and limited accountability for the decisions and actions of others in varied or ill-defined contexts.</p>
Disaster Management Manager and Researcher	8	<p>Scope of knowledge: Demonstrate knowledge of and engagement in an area at the forefront of DRM, discipline or practice; and</p> <p>Demonstrate an understanding of the theories, research methodologies, methods and techniques relevant to the DRM, discipline or practice; and</p> <p>Demonstrate an understanding of how to apply this knowledge in a particular context.</p> <p>Knowledge literacy: Demonstrate an ability to interrogate multiple sources of knowledge in an area of specialisation, and to evaluate knowledge and processes of knowledge production.</p> <p>Method and Procedure: Demonstrate an understanding of the complexities and uncertainties of selecting, applying or transferring appropriate standard procedures, processes or techniques to unfamiliar problems in a specialised field, discipline or practice.</p> <p>Problem solving: Demonstrate an ability to use a range of specialised skills to identify, analyse and address complex and/or abstract problems drawing systematically on the body of knowledge and methods appropriate to a field, discipline or practice.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Accessing, processing and managing information: Demonstrate an ability to critically review information gathering, synthesis of data, evaluation and management processes in specialised contexts in order to develop creative responses to problems and issues.</p> <p>Producing and communicating information: Demonstrate an ability to present and communicate academic, professional or occupational ideas and texts effectively to a range of audiences, offering creative insights, rigorous interpretations and solutions to problems and issues appropriate to the context.</p> <p>Context and systems: Demonstrate an ability to operate effectively within a DRM system, or manage the system based on an understanding of the roles and relationships between elements within the system.</p> <p>Management of learning: Demonstrate an ability to apply in a self-critical manner learning strategies, which effectively address one's own professional and ongoing learning needs and the professional and ongoing learning needs of others.</p> <p>Accountability: Demonstrate an ability to take full responsibility for one's own work, decision making and use of resources, and full accountability for the decisions and actions of others where appropriate.</p>
Disaster Management Researcher/ Senior Manager	9	<p>Scope of knowledge: Demonstrate specialist knowledge to enable engagement with and critique of current research or practices; and</p> <p>Demonstrate an advanced scholarship or research in a particular field of DRM, discipline or practice.</p> <p>Knowledge literacy: Demonstrate an ability to evaluate current processes of knowledge production and to choose an appropriate process of enquiry for the area of study or practice.</p> <p>Method and Procedure: Demonstrate a command of and ability to design, select and apply appropriate and creative methods, techniques, processes or technologies to complex DRM practical and theoretical problems.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Problem solving: Demonstrate an ability to use a wide range of specialised skills in identifying, conceptualising, designing and implementing methods of enquiry to address complex and challenging problems within DRM field, discipline or practice; and Demonstrate an understanding of the consequences of any solutions or insights generated within a specialised context.</p> <p>Accessing, processing and managing information: Demonstrate an ability to design and implement a strategy for the processing and management of information, in order to conduct a comprehensive review of leading and current research in an area of specialisation to produce significant insights.</p> <p>Producing and communicating information: Demonstrate an ability to use the resources of academic and professional/occupational discourses to communicate and defend substantial ideas that are the products of research or development in the DRM area of specialisation; and</p> <p>Use a range of advanced and specialised skills and discourses appropriate to a field/discipline/practice, to communicate to a range of audiences with different levels of knowledge/expertise.</p> <p>Context and systems: Demonstrate an ability to make interventions at an appropriate level within a system, based on an understanding of hierarchical relations within the system, and the ability to address the intended and unintended consequences of interventions.</p> <p>Management of learning: Demonstrate an ability to develop one's own learning strategies which sustain independent learning and academic or professional development, and can interact effectively within the learning or professional group as a means of enhancing learning.</p> <p>Accountability: Demonstrate an ability to operate independently and take full responsibility for one's own work, and where appropriate to account for leading and initiating processes and implementing systems, ensuring good resource management and governance practices.</p>

Source: SAQA Level Descriptors for the South African NQF (2012)

6.3. Education for practitioners in professions associated with disaster risk management

The NQF obliges all Quality Councils to ensure articulation and mobility between and within the sub-frameworks. This will require elements of the DRM qualifications to be integrated into the existing education programmes of relevant professions associated with disaster risk management. The integration can take the form of development of modular programmes or part qualifications that enable a person already experienced or qualified in a related field to upgrade his or her qualification by adding such module or part qualification into their portfolio. These professionals should be able to register with the Disaster Management Professional Body and accordingly practice within the field. Alternatively, an incumbent within the associated profession can enrol for a full qualification, meeting the outcome descriptions listed above.

This means that members of this group may, if disaster management is an option in their curricula, include it in their scope of study. NDMC must work with higher education institutions to ensure that it is mandatory for disaster management to be integral in learning programmes for closely linked professional fields. In fields related to studies in climate change, finance, economics, architecture, management, development studies, agriculture, water studies, and hydrology, disaster management must become a compulsory and accredited course.

A second group within this sector may already have a formal qualification and they may wish to include one year of study in the field of disaster management to further their knowledge base and or increase their marketability. In this case, such incumbents will opt for part or full qualification.

These professions should assimilate the basic core knowledge areas of disaster management and explore the legislative implications on their particular profession. In accordance with the outcome descriptions below, they will be able to identify, interpret and think critically on how the work that they do, can be directed towards the disaster risk reduction agenda as well as consider, plan and test their sector response to disasters requiring their professional roles. Their training should therefore focus on building resilience within their core business.

The critical proviso is that the studies done in the field of disaster management do not make the individual a disaster management professional. The individual remains within his respective profession, but with an understanding of disaster risk reduction and implementation strategies for achieving the disaster risk reduction agenda.

The NDMC in collaboration with the other disaster management centres within other government spheres should spearhead the development of such part qualifications or modules. The technical advisory body should be central to the development of such modules or part qualifications. The following table provide a description for a qualification that will allow such integration and mobility:

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
DRM professional	6	<p>Scope of knowledge: Demonstrate detailed knowledge of the main areas of DRM, disciplines or practices, including an understanding of and an ability to apply the key terms, concepts, facts, principles, rules and theories of that field, discipline or practice to unfamiliar but relevant contexts and demonstrate knowledge of DRM or areas of specialisation and how that knowledge relates to other fields, disciplines or practices.</p> <p>Knowledge literacy: Demonstrate an understanding of different forms of knowledge, schools of thought and forms of explanation within the DRM or operation, and an awareness of knowledge production processes.</p> <p>Method and Procedure: Demonstrate an ability to evaluate, select and apply appropriate methods, procedures or techniques in processes of investigation or application within a defined context.</p> <p>Problem solving: Demonstrate an ability to identify, analyse and solve problems in unfamiliar contexts, gathering evidence and applying solutions based on evidence and procedures appropriate to DRM, discipline or practice.</p> <p>Accessing, processing and managing information: Demonstrate an ability to evaluate different sources of information; to select information appropriate to the task, and to apply well-developed processes of analysis, synthesis and evaluation to that information.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Producing and communicating information: Demonstrate an ability to present and communicate complex information reliably and coherently using appropriate academic and professional or occupational conventions, formats and technologies for a given context in DRM.</p> <p>Context and systems: Demonstrate an ability to make decisions and act appropriately in familiar and new contexts, demonstrating an understanding of the relationships between systems, and of how actions, ideas or developments in one system impact on other systems.</p> <p>Management of learning: Demonstrate an ability to evaluate performance against given criteria, and accurately identify and address one's own task-specific learning needs in a given context, and to provide support to the learning needs of others where appropriate.</p> <p>Accountability: Demonstrate an ability to work effectively in a team or group, and to take responsibility for one's own decisions and actions and the decisions and actions of others within well-defined contexts, including the responsibility for the use of resources where appropriate.</p>
Senior DRM Officials and Managers	7	<p>Scope of knowledge: Demonstrate integrated knowledge of the central areas of one or more fields of DRM, disciplines or practices, including an understanding of and an ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories of that field, discipline or practice; and</p> <p>Demonstrate detailed knowledge of DRM or areas of specialisation and how that knowledge relates to other fields, disciplines or practices.</p> <p>Knowledge literacy: Demonstrate an understanding of contested knowledge and an ability to evaluate types of knowledge and explanations typical within the DRM or practice.</p> <p>Method and Procedure: Demonstrate an understanding of a range of methods of enquiry in a field, discipline or practice, and their suitability to specific investigations; and</p> <p>Demonstrate an ability to select and apply a range of methods to resolve problems or introduce change within DRM practice.</p>

OCCUPATIONAL PROFILE	NQF LEVEL	OUTCOME DESCRIPTION
		<p>Problem solving: Demonstrate an ability to identify, analyse, evaluate, critically reflect on and address complex problems, applying evidence-based solutions and theory-driven arguments.</p> <p>Accessing, processing and managing information: Demonstrate an ability to develop appropriate processes of information-gathering for a given context or use; and an Ability to independently validate the sources of information, and evaluate and manage the information.</p> <p>Producing and communicating information: Demonstrate an ability to develop and communicate one's own ideas and opinions in well-formed arguments, using appropriate academic, professional, or occupational discourse.</p> <p>Context and systems: Demonstrate an ability to manage processes in unfamiliar and variable contexts, recognising that problem solving is context-and system-bound, and does not occur in isolation.</p> <p>Management of learning: Demonstrate an ability to identify, evaluate and address one's own learning needs in a self-directed manner, and to facilitate collaborative learning processes.</p> <p>Accountability: Demonstrate an ability to take full responsibility for one's own work, decision making and use of resources and limited accountability for the decisions and actions of others in varied or ill-defined contexts</p>

Source: SAQA Level Descriptors for the South African NQF (2012)

6.4. Performance Indicators

- Facilitated development of occupational qualification for Disaster Management practitioners and professionals
- Facilitated Disaster Management part qualification (modules) for associated DRM professionals

7. Governance and Quality Assurance Mechanisms

The development of qualifications for DRM is an urgent necessity. The development of these qualifications must follow the criteria set out by the three Quality Councils established in terms of the NQF. The DRM cuts across various disciplines and therefore requires well-coordinated mechanisms to ensure integration, mobility and portability of skills. Equally important is the need to develop institutional governance structures that will ensure the alignment of education and training programmes, which will optimize resource use and national priority. The NDMF has prescribed the establishment of a Technical Advisory Body by the NDMC to streamline advisory services in respect of the development of the qualification.

The NDMF has also highlighted the importance of both quality assurance and the accreditation systems, to ensure that all education and training providers and facilitators are registered and accredited.

7.1. The Technical Advisory Body

The NDMC must establish a national Technical Advisory Body reflecting representation across all national and provincial levels of government. This will serve as a link between, and assist, the NDMC and PDMCs to maintain the required standards of DRM education across all functional or professional areas. This Advisory Body should be assisted to establish subcommittees at provincial government levels where necessary. It also must ensure that an accreditation and registration system, through which all providers and facilitators can be registered and accredited, is established. This Advisory Body, consisting of such recognised individuals, with knowledge and skills in the DRM field, must be appointed by the NDMC, and shall ensure that consistent standards underpin the national education and training framework.

7.1.1. *Composition of the Technical Advisory Body*

- Membership should comprise recognized individuals in the field of DRM
- Appointed individuals must possess requisite knowledge in the field related to DRM

- Knowledgeable individuals from academic and research institutions, the Department of Basic Education, the Department of Higher Education, the Department of Labour, SETAs, Provincial Governments, the Disaster Management Professional Body, NGOs and the private sector

7.1.2. Functions of the Technical Advisory Body

- Provide advisory services on all matters impacting on the national education and training requirements for disaster risk management
- Supervise activities of specific, and of provincial, subcommittees tasked with the responsibility to pursue interests in the field of education and training
- Determine specific knowledge and education areas that will improve technical skills development for DRM professionals

7.1.3. Infrastructure for Qualification Development

The NDMC will develop a discipline based committee system with administrative capacity to pursue development of qualifications and standards addressing DRM at various levels and for different functional requirements. These committees should address the education and training requirements of various functional areas prone to consequential risks and incidents.

The composition of the committees will take into account the significance of overlapping between functional disciplines and ensure that the technical management requirements that are standard are carried through at each level. This will be significant, in particular, for development of occupational qualifications.

To this end, the NDMC must:

- Work closely with the different Quality Councils (and government departments) to ensure integration of DRM in the school curriculum; the development of DRM occupational qualifications; and academic education and training standards
- Source and directly fund priority qualifications and standards in DRM

- Prioritise the development of internationally comparable career development and progression pathways
- Mobilise maximum collaboration between different role players in DRM and education
- Minimize duplication of work between different role players

7.2. Quality Assurance for DRM Education and Training

The NQF set out three Quality Councils to oversee the development of qualifications, establish standards and criteria for accreditation and registration of learning programmes, facilitators, assessors and providers. Each of the Quality Councils developed their own respective mechanisms to fulfil the NQF requirements, including establishing their own internal systems or the delegation of these functions to credible institutions meeting their respective criteria.

The DRM field is diverse and requires a dynamic system that will enable coordination of inputs, and outcomes geared towards sustaining a uniform system of education and training qualification development and implementation. Cognisant of the overall implications of the NQF, the disaster management fraternity seeks to structure this unique environment so that it achieves the NQF requirements, whilst ensuring a structured collective input and development of the system of education and training, which realizes sector growth and professionalized development.

The NDMC must therefore seek to coordinate the policy input, and progressively structured development of professional education and training systems that enhance the long term growth of the sector. The diverse nature of the sector creates numerous structural weaknesses and there is perpetual underdevelopment in significant areas of the profession.

The development of the sector based quality assurance system is intended to limit the impact of the identified weaknesses and improve the overall objectives of the NQF within the DRM fraternity. The system will work alongside, and in support of the already established NQF practices.

7.2.1. Appointment of a DRM Quality Assurance Committee

The DRM Quality Assurance Committee will function independently but

work to complement the existing activities of the three Quality Councils. The approaches of the three Quality Councils are different and will invariably require a dynamic interaction to ensure consistency of DRM input and collaboration.

7.2.2. Functions of the DRM Quality Assurance Committee

The DRM Quality Assurance Committee with its attendant administrative capacity will seek to fulfil the following functions;

- Promote a Quality Assessment system that will
 - be fair, reliable, valid, ethical and transparent
 - be consistent across time, place, role players and respond to a non-sector demand led model
 - use methodologies that are fit-for-the-purpose and reflect a consistent level of higher cognitive challenge
 - avoid tendencies of exclusivity
 - adhere to the QCTO values which are:
 - innovation and excellence
 - empowerment and recognition
 - respect and dignity
 - ethics and integrity
 - ownership and accountability
 - authenticity.
- Co-operate and participate in the development of DRM qualifications (including development quality partner in the case of QCTO) and qualification assessment specifications
- Promote the continuous professional development of registered occupational assessment practitioners in collaboration with institutions tasked with this responsibility for DRM qualification;
- Develop a database for the accredited providers, learners, facilitators, assessors, learning programmes and actual qualifications
- Conduct monitoring for DRM courses and programmes (formal and non-formal), accredited facilitators, presenters, instructors and educators and institutions offering DRM courses and programmes

7.3. DRM Professional Body

The disaster management fraternity is as diverse as the scale of incidents falling within the scope and the varied definitions of the broader DRM. The formalization of the profession will require uniform categorization of different occupations defined within and linked to the profession.

The primary purpose of the DRM professional body or professional organisation should be aimed at protecting, promoting and supporting the profession. Protection of the profession carries two complementary responsibilities;

- Protecting the interests of the professionals, and
- Protection of the public interest

The quest for development of qualifications and standards for education and training within the DRM coincides with the first responsibility of the professional body. This means that the Professional Body will set best practice standards within the DRM fraternity. The body should also seek to develop and enforce the application of ethical standards in their profession, including formalisation of codes of professional conduct.

Equally important is the focus toward ensuring that public interest is safeguarded by the development of measures setting standards for professional competence.

7.3.1 Primary Functions of the Professional Body

- Setting standards for education, training and professional competence;
- Evaluating, quality assuring, and accrediting educational qualifications;
- Maintaining a register of registered professionals;
- Assessing the competency of applicants for registration;
- Setting and enforcing codes of conduct and practice;
- Provide DRM leadership
- Be the voice for the profession

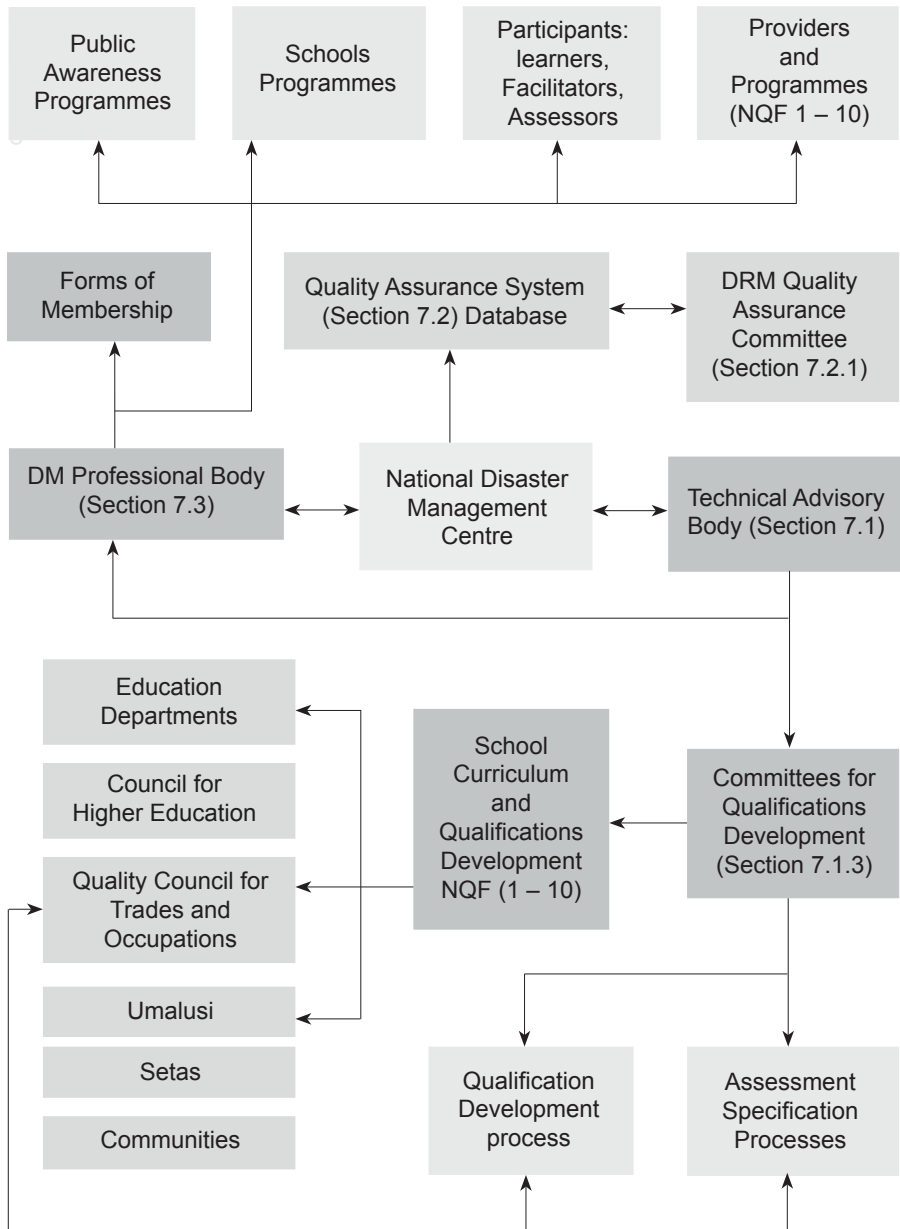
7.4. Performance Indicators

- Establishment of Technical Advisory Body
- Built technical capacity to support Committees that provide inputs for development of DRM qualifications
- Collaborated with Quality Councils for development of qualifications based on targeted priority areas
- Built capacity (committee) for quality assurance and requisite database
- Collaborated in validation and or establishment of DRM Professional Body (inclusive of business case for DRM Professional Body)

THE GOVERNANCE AND DRM QUALITY ASSURANCE SYSTEM

TECHNICAL ADVISORY BODY	EDUCATION AND TRAINING QUALITY ASSURANCE SYSTEM		
<p>Provide advice on the establishment of uniform qualification criteria and monitor standards, through engagement in:</p> <ul style="list-style-type: none"> Identifying and defining: <ul style="list-style-type: none"> all levels of DRM education and training possible exit level qualifications outcomes Reviewing current qualification requirements Participating in establishing qualification standards for HoC and levels for DRMOS at all spheres Processes for integration of DRM E, T & R into strategic areas 	<ul style="list-style-type: none"> Creation of Database for: <ul style="list-style-type: none"> Qualifications Training service providers Facilitators/trainers Provide administrative capacity Maintain a record of available programmes and courses in South and southern Africa 	<ul style="list-style-type: none"> Participate in the development of Accreditation Requirements Participate in the development of curriculum for schools and qualification for higher education at different NQF levels Monitor quality for learning provision 	<ul style="list-style-type: none"> Develop public awareness programmes Document indigenous knowledge systems and integrate them into education and training programmes and research

THE DRM EDUCATION AND TRAINING GOVERNANCE AND QUALITY ASSURANCE SYSTEM



8. Core Values Underpinning Disaster Management Education and Training

The NDMC has the responsibility to promote DRM education and training based on NETaRNRA and the National Indicative Disaster Risk Profile (NIDRP). Its key responsibility is to facilitate development of national guidelines to ensure uniformity and quality in DRM education and in the training programmes offered by the different stakeholders.

In fulfilling this task, NDMC will seek to ensure that DRM education and training is underpinned by the following principles and values;

Accessibility: Disaster affects virtually everyone within the country and public awareness, education and training should be within geographic and conceptual reach of all South Africans. This means that awareness education should be taken to communities and presented in ways that they understand. Different media must be used to ensure access to education and training information. Similarly, provision of formal education should target all, with priority given to schools in disaster prone areas. Training materials must be conducive to learning for all learners at different NQF levels.

Uniformity: This refers to the maintenance of the same context, contents and the fulfilment of the similar outcomes and standards in education. National public awareness campaigns should be standardized but each province must adapt them to address the unique and diverse situations which affect their respective communities. Similarly, training methods and approaches may be suited to respective institutions and learners but the outcomes should remain the same.

Recognition of prior learning: Formal acknowledgement of knowledge gained through non-formal training and experience is a critical policy of our education system. Over the years many people have received a wide variety of informal training and practise and have worked in different DRM environments – our system should seek to convert these experiences to formal acknowledgement of competence.

Incorporation of indigenous knowledge: Knowledge gained through years of experience within communities is important for learning and improvement of DRM. Research should seek to document this information and inform disaster management practices across the country.

Quality: maintaining distinctive standards and maintaining credible systems within which education and training is delivered is an important cornerstone successful practice. Standards must be upheld for all role players (assessors, facilitators, providers, etc) and systems, including learning materials and environment.

Relevance: Education, training and public awareness should be appropriate to national disaster experiences and profiles. The imperative to base the public awareness, education and training on NETaRNRA and NIDRP, is intended to ensure the relevance of these programmes.

Respect for diversity (methods and approaches): Communities are exposed to different sets of disasters, and even where/when the causes are the same, the impact is often different. Education and public awareness programmes should seek to address unique and different contexts within which disasters occur.

Professional development: The discipline of DRM should be formalized and professionalised. The quest for development of Professional Body is intended to ensure that ethical conduct and standards are developed and maintained within the DRM fraternity.

Participative stakeholder engagement and communication: The learning environment should enhance learner involvement and incorporate contributions into the learning process. Similarly, public awareness and research approaches should appreciate and acknowledge indigenous knowledge in disaster risk avoidance and reduction measures.

Comparability: DRM education and training qualifications and programmes should withstand regional and international scrutiny. Our unique risk profile should be the only identifiable difference between our programmes and those of the best international standards.

Mobility: The learning programmes should enable learners and practitioners to easily move between programmes and enhance diverse occupational

progression pathways. Equally, qualifications should enable articulation between sub-frameworks and (vertical and horizontal) integration between qualifications.

Portability: Skills gained from within DRM education and training should enable easy changes in career choices. A battery of generic skills must be included in training programmes to allow for easy sideways movement in career choices.

9. Regional and International Standardisation

Disasters are not confined to national boundaries. Threats in South Africa have the potential to increase or influence the risk in neighbouring countries, and vice-versa. In addressing the above concern, the Act (Section 7 (2) (c) (ii)) and the NDMF (s1.4.4), both place emphasis on the importance of regional co-operation as a means of promoting effective DRM. The dynamic and ever evolving nature of the DRM environment, and more specifically, the increasing effects of global trends on disaster risk management, demand global strategies and interventions. Thus the focus of DRM in South Africa should be informed by global practice (DMA Section 7 (2) (c) (i)) and the NDMF (s1.4.5). Equally, disaster risk management education and training requires a cross-pollination of ideas and experiences in order to optimize knowledge on the subject.

The national DRM education and training framework, therefore, should provide for an education and training regime which can be bench-marked, or to the extent possible, aligned with other countries in the region and globally. This would create a situation where the curriculum is uniform and thus it would not matter where a person decided to study, as the knowledge gained in South Africa would be uniformly applied elsewhere in the world and vice-versa.

The system would also create an opportunity for exchange programmes with other institutions globally, to ensure the implementation of a globally relevant DRM education and training system.

The primary focus of regional and international standardisation should be to:

- Develop and implement (employ) joint standards of practice in education, training and research
- Explore methods of harmonising credit systems across qualification structures
- Encourage portability of credits from one qualification to another
- Promote articulation across programmes and institutions, enabling students to identify potential progression routes, particularly in the context of lifelong learning

- Ensure compatibility with regional and international qualifications frameworks in order to facilitate international recognition and the comparability of standards
- Foster collaboration in DRM education, training and research programmes
- Enhance global and regional partnerships and knowledge management, towards the goal of the mainstreaming of DRM.

Each country's education system operates under a different legal framework and risk profile, has its own funding criteria, accreditation and quality assurance procedures that determine how it functions. Since no one national system is exactly like the other, this contributes to diversity. However, this is also a critical factor to be considered when establishing equivalence; through regional and international standardisation but within an appropriate Quality Management System.

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11. Glossary of Terms

This chapter provides the definition or explanation of key terms or concepts used across the twelve thematic areas. The terms or concepts are defined by a single sentence. The attendant comments paragraph of each term or concept is not part of the definition, but is provided to give additional context. The glossary is intended for those interested in the national disaster risk management education and training sector.

Accreditation	The certification, usually for a particular period of time, of a person, a body or an institution, as having met specific requirements to fulfil a particular function in the quality assurance system set by the South African Qualification Authority (SAQA).
Audit	A way of measuring the quality of products, services or processes that have already been delivered or undertaken.
Candidacy status	status granted to a provider that demonstrates capacity or potential to meet the minimum standards of provision determined by the HEQC for the intended programme and qualification. The provider can begin to offer the programme to the first cohort of students.
Credit	value assigned to a given number of notional hours of learning. One SAQA credit equals 10 notional hours; 120 SAQA credits are approximately equivalent to one year of full-time study.
Disaster	A progressive or sudden, widespread or localized, natural or human-caused occurrence which- <ol style="list-style-type: none"> a) Causes or threatens to cause- <ul style="list-style-type: none"> • death, injury or disease • damage to property, infrastructure or the environment, or • disruption of the life of a community; and b) Is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources.
Criteria Standards	Rules, guides or tests against which a judgment or decision is based.
Disaster Assessment	Surveys carried out to determine the effects of disaster on a community and a society. A disaster assessment has three sub-activities: Needs Assessment, Damage Assessment and Access Survey.
Disaster Risk Management	The systematic process of using administrative decisions, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to prevent or limit (through mitigation and preparedness) adverse effects of hazards.

Disaster Risk Reduction	The concept and practice of reducing disaster risks through systematic efforts to analyse and manage causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.
Disaster Risk	The potentially disastrous losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.
Early Warning System	A system that allows for detecting and forecasting impending extreme events to formulate warnings on the basis of scientific knowledge, monitoring and considering of the factors that affect disaster severity and frequency.
Education and Training Quality Assurer	The officeholder responsible for monitoring the quality of education and training and ensuring that learners are assessed to an agreed standard. Service providers of education and training have to be approved by an education and training quality assurer.
Emergency Communication System (ECS)	Any system (typically computer-based) that is organized for the primary purpose of supporting one-way and two-way communication of emergency messages between both individuals and groups of individuals. These systems are commonly designed to integrate the cross-communication of messages between a variety of communication technologies, forming a unified communication system which can be ideal for communicating during emergencies.
Existing Programme	A programme that is registered on the National Qualifications Framework (NQF) and has been accredited by the Universities and former Technikons Advisory Council (AUT) or the SAQA or the HEQC.
Formal learning	takes place in education and training institutions, leading to recognised diplomas and qualifications.
Hazard	A potentially damaging physical event, phenomenon and/or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
Informal Learning	A natural accompaniment to everyday life. Unlike formal and non-formal learning, informal learning is not necessarily intentional learning, and so may well not be recognized even by individuals themselves as contributing to their knowledge and skills.
Information Management System	A system for inputting, collating and organizing data that should provide selected data and reports to the management, to assist in monitoring and controlling the project organization, resources, activities and results.
Learnership	A work-based learning programme, with the learner doing both practical work and theory. A learnership leads to a qualification registered on the NQF.
Millennium Development Goals	The eight international development goals that all 193 United Nations members states and at least 23 international organizations have agreed to achieve by the year 2015.

Mitigation	Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards on vulnerable areas, communities and households.
National Qualifications Framework	An integrated national approach to education and training that specifies how different education and training standards and /or qualifications must be set and how courses will be accredited.
New Programme	A programme that has not been offered before, or one whose purpose, outcomes, field of study, mode or site of delivery has been considerably changed.
Non-formal Learning	This takes place alongside the mainstream systems of education and training and does not typically lead to formalized certificates. Non-formal learning may be provided in the workplace and through the activities of civil society organizations and groups (such as in youth organizations, trades unions and political parties). It can also be provided through organizations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations).
Preparedness	The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.
Quality Assurance	The process of ensuring that institutional arrangements for specified quality standards or requirements (of education provision) are effective.
Recovery	Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures.
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.
Response	Measures taken during or immediately after a disaster in order to provide assistance and meet the life preservation and basic subsistence needs of those people and communities affected by the disaster. These measures can be immediate, short-term or for a protracted period.
Risk Assessment	A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.
Risk (Disaster Risk)	The probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, disrupted economic activity or environmental damage) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

Sector Education and Training Authority (SETA)	A body responsible for organizing education and training programmes in a particular economic sector. SETAs must devise and implement skills development plans within their sectors.
South African Qualification Authority (SAQA)	The body that oversees the development and implementation of the NQF. SAQA establishes national standards bodies, standards generating bodies, and education and training quality assurers.
Unit Standards	A nationally recognized and registered set of education and training outcomes and their associated criteria, as well as other information, including technical information required by SAQA.
Vulnerability	The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards

