08 October 2025

Disaster management in a world affected by climate change

CIGFARO
Chartered Institute of
Government Finance, Audit & Risk Officers

Mr. M.C HADEBE
KZN COGTA PDMC

INTRODUCTION

In terms of the Disaster Management Act 57 of 2002, disaster risk reduction is a legal and strategic priority for all spheres of government.

- Climate change is no longer a future threat it is a present-day reality, intensifying the frequency, severity, and complexity of disasters.
- South Africa, and KwaZulu-Natal in particular, has experienced repeated climate-related events such as the 2022 floods, recurring droughts, and cyclonic storms, highlighting the urgent need for action..
- Effective disaster management today must go beyond emergency response, integrating climate science, community data, and forward-looking risk assessments into every aspect of governance.
- The Disaster Management Act 57 of 2002 provides the legislative foundation for a coordinated, integrated, and proactive approach-

INCREASING COMPLEXITY OF DISASTER RISKS

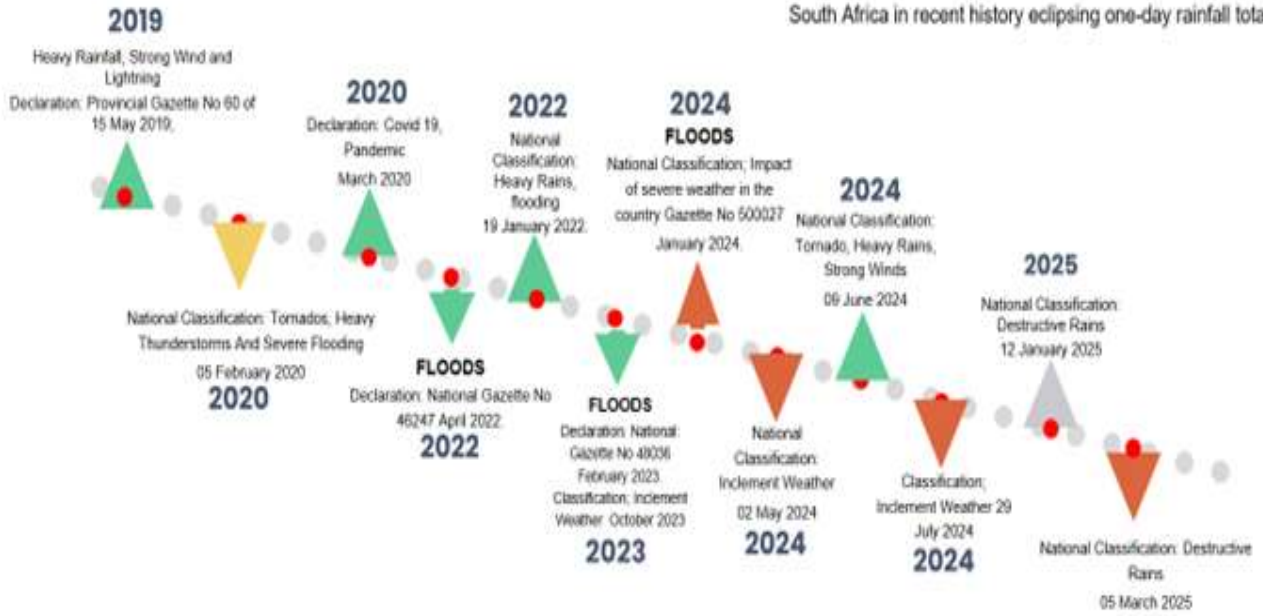
INCREASING COMPLEXITY OF DISASTER RISKS

Climate change is not just increasing the frequency of disasters,it is increasing their complexity. We are now dealing with:

- ***Compounded risks: Floods triggering landslides, storms affecting already drought-weakened ecosystems, etc.***
- ***Urban vulnerabilities: Informal settlements built on unstable land.***
- ***Climate migration: Increasing displacement adds pressure on urban services.***
- ***Traditional risk models are no longer enough. We need dynamic, forward-looking disaster risk frameworks that integrate climate science, community data, and predictive analytics.***

INCREASING COMPLEXITY OF DISASTER RISKS

The province of Kwazulu-Natal typically receives about 106.56 millimetres of precipitation and has 159.63 rainy days (43.73% of the time) annually, on average. January is the wettest month with 130 mm. However, the storm of April 11, 2022, dumped nearly 300mm of rain in just over 24 hours and became the deadliest to hit South Africa in recent history eclipsing one-day rainfall totals from previous disasters.



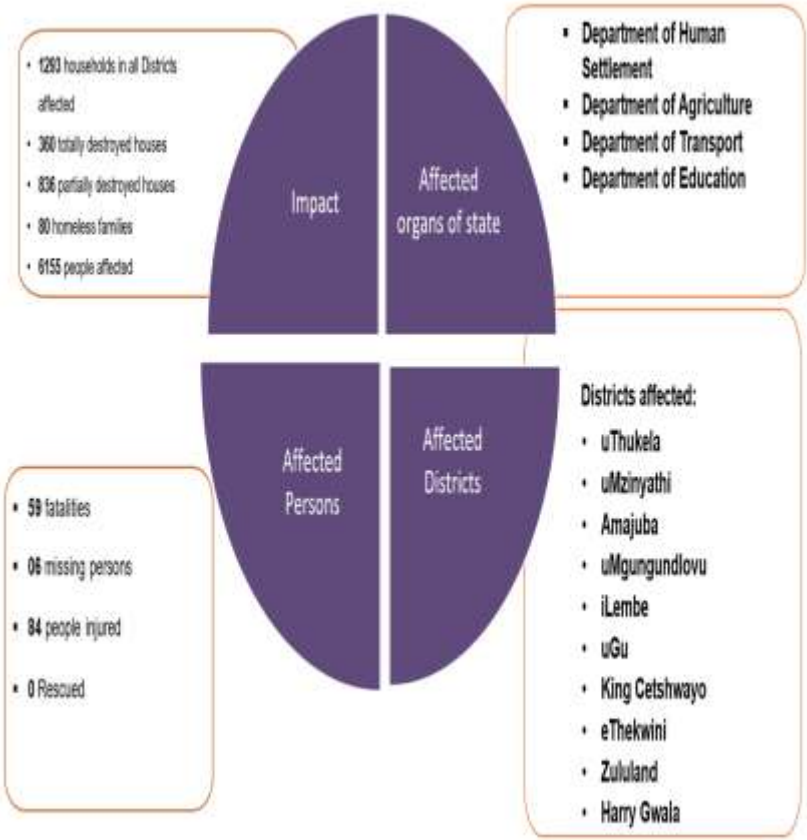
The devastating floods that struck KwaZulu-Natal between 16 and 28 February 2025, resulted in 22 fatalities and over R3.1 billion in damages, a reminder of the April 2022 floods and the **unsatisfactory response and recovery efforts**. This underscores the urgent **need for a paradigm shift** in the approach to disaster risk management. The declaration of a national state of disaster was a necessary response for the 2022 floods, but it must also serve as a catalyst for long-term resilience planning.

Poor planning and lack of administrative mechanisms to provide rapid response to incidents. A detailed summer season contingency plan is essential to ensure the province's readiness for disasters, enabling swift response, effective recovery efforts, and proactive risk mitigation.

IMPACT ON PUBLIC FINANCE

IMPACT ON PUBLIC FINANCE

2024-2025 Incidents



- The 2022 floods in KwaZulu-Natal caused over R17 billion in damages. These events disrupt lives and livelihoods but they also cause massive losses to public infrastructure, homes, businesses, and local economies.
- Section 34 of the Disaster Management Act (57 of 2002) calls for clear financial arrangements to support disaster risk management. We must integrate resilience funding into annual budgets, IDPs, and sectoral plans to ensure long-term sustainability.
- Municipalities are forced to divert funds from long-term development to emergency relief.
- According to global best practice, R1 invested in disaster risk reduction can save up to R7 in post-disaster response and recovery. Investing in resilient infrastructure, early warning systems, and preparedness is far more cost-effective than rebuilding

POLICY & PLANNING INTEGRATION

POLICY AND PLANNING INTEGRATION

The KZN-PDMC recognizes the significance of flood risk and **the need to integrate flood risk assessment and its management into the planning process** in order to deliver a policy of avoidance or minimization of potential future flood risk, and as part of a range of responses to flooding including risk evaluation, flood forecasting and warning, emergency response systems and capital projects of an engineering nature;

Proper planning and sustainable development is required especially for exceptional circumstances where developments are in areas of flood risk;

Implications for biodiversity should be considered at all stages of flood risk assessment and its management;

Climate change is a dynamic process that requires a precautionary and flexible approach to ensure appropriate provision for, or adaptation to, its potential consequences; and

Investment in flood risk management needs to be focused on the areas of greatest need through a strategically led flood risk management approach.

POLICY AND PLANNING INTEGRATI

Policy and planning integration in disaster management (DM) for a climate-changed world means merging Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) strategies with national development plans, which requires systemic governance changes, enhanced cross-sectoral collaboration, and aligning funding streams.

Key Aspects of Policy and Planning Integration

- **Coherent Policy Agendas:** Aligning the Sendai Framework, the Paris Agreement, and the 2030 Agenda for Sustainable Development to create common objectives for DRR, CCA, and sustainable development.
- **Institutional Alignment:** Fostering a coordinated approach between different public administrations responsible for DM and climate policies, moving away from fragmented, sectoral approaches.
- **Inter-sectoral and Transboundary Cooperation:** Facilitating collaboration between different sectors and across national borders, especially for managing transboundary climate impacts like floods and droughts.
- **Integrated Planning:** Weaving climate considerations and disaster risk assessments into all levels of development planning, including land use, urban planning, and infrastructure development.
- **Strategic Funding:** Promoting the use of both DRR and CCA funding for integrated initiatives to achieve common goals.

ROLE OF LOCAL GOVERNANCE

ROLE OF LOCAL GOVERNMEI

Local Government Is the First Line of Defence
Municipalities are closest to the communities they serve and are often the first responders when disasters strike. Their ability to act quickly and effectively can significantly reduce the loss of life, property, and livelihoods.

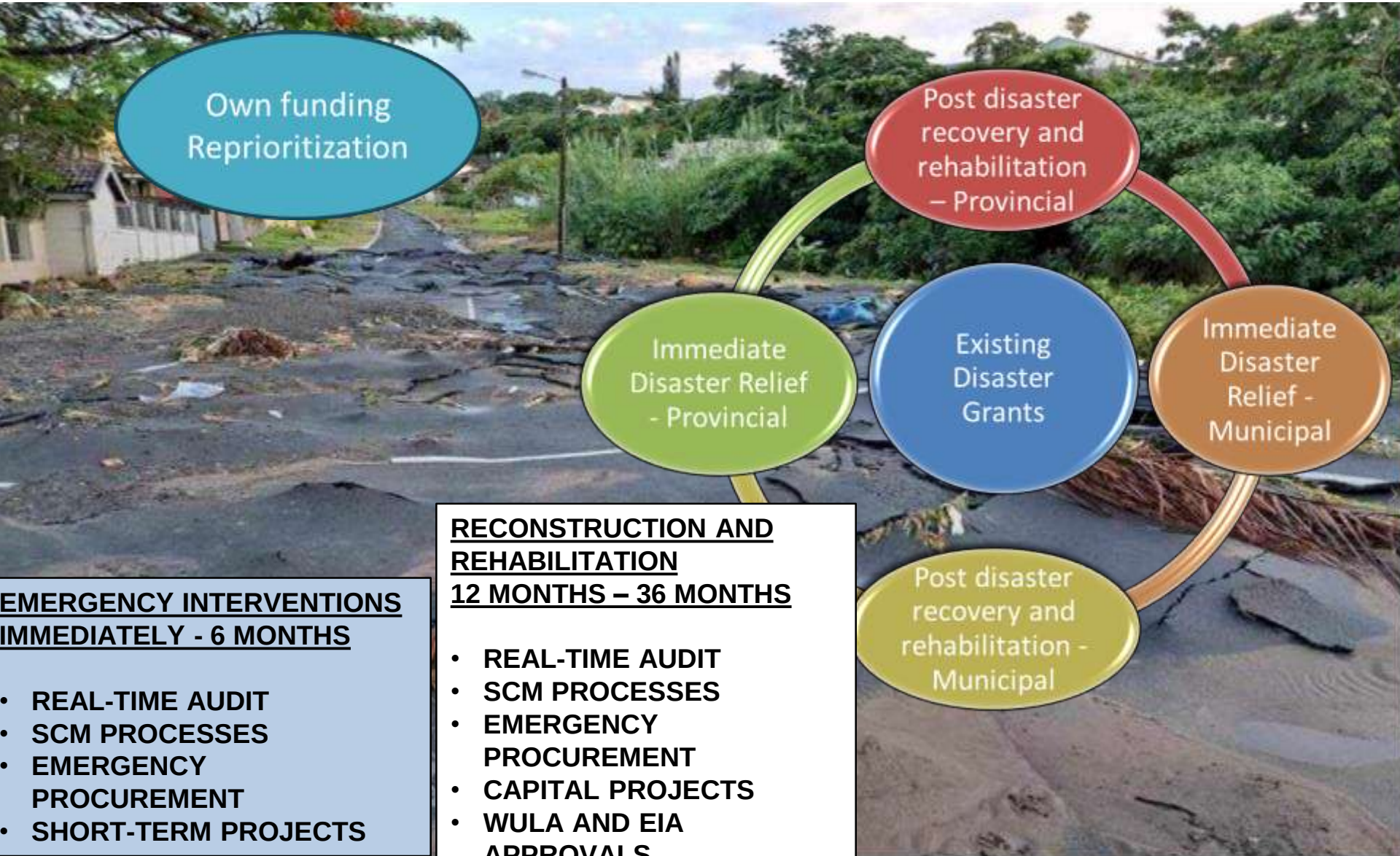
The Disaster Management Act (57 of 2002) assigns clear responsibilities to local government. This includes establishing **disaster management centres**, conducting local risk assessments, and integrating disaster risk reduction into all municipal planning and operations.

Integration Into Planning and Service Delivery
Disaster management must be fully embedded into **Integrated Development Plans (IDPs)**, **Spatial Development Frameworks (SDFs)**, and infrastructure projects. Risk assessments should be mandatory in all new developments, especially in high-risk areas.

Strengthening Capacity and Systems
To fulfil their role, municipalities need adequate technical expertise, early warning systems, and access to funding. Strengthening institutional capacity, training staff, and improving coordination between departments is essential for building resilience.

Community Engagement Is Key
Local government must work hand-in-hand with communities to develop **early warning systems**, promote **preparedness**, and support **post-disaster recovery**. Community-based approaches ensure that risk reduction efforts are inclusive and locally relevant.

ROLE OF LOCAL GOVERNMENT



EMERGENCY INTERVENTIONS IMMEDIATELY - 6 MONTHS

- REAL-TIME AUDIT
- SCM PROCESSES
- EMERGENCY PROCUREMENT
- SHORT-TERM PROJECTS

RECONSTRUCTION AND REHABILITATION
12 MONTHS – 36 MONTHS

- REAL-TIME AUDIT
- SCM PROCESSES
- EMERGENCY PROCUREMENT
- CAPITAL PROJECTS
- WULA AND EIA APPROVALS

BUILDING INSTITUTIONAL CAPACITY

BUILDING INSTITUTIONAL CAPACITY

Capacity Is More Than Just Training

Building institutional capacity means more than offering short-term training. It involves creating strong, well-coordinated systems supported by clear leadership, adequate resources, and effective governance structures that can manage complex and climate-driven disasters.

Investing in Systems and Tools

Institutions must be equipped with modern tools such as **real-time data systems**, **predictive analytics**, and **GIS-based risk mapping**. These enable more accurate forecasting, early warnings, and smarter decision-making before, during, and after disasters.

Multi-Disciplinary, Cross-Sector Teams

Effective disaster risk management requires **interdepartmental and cross-sector coordination.** Teams should include professionals from housing, transport, water, health, finance, and environment — all working under a unified risk reduction strategy.

Professionalising Disaster Risk Management

Disaster risk management must be recognised as a **specialised and professional discipline.** Municipalities and government departments need skilled personnel with expertise in climate science, urban planning, data analysis, emergency response, and community engagement.

Collaboration Strengthens Capacity

Strong institutions do not operate in isolation. Collaboration with **universities**, **research institutions**, **NGOs**, and the **private sector** brings innovation and technical expertise into government, helping to address hybrid crises like climate change, migration, infrastructure collapse, and public health emergencies.

BUILDING INSTITUTIONAL CAPACI

- **Strengthen Policy and Legal Frameworks:** Establish clear policies and legislative frameworks that promote coordinated and sustained action between disaster management, climate change adaptation, and other relevant agencies.
- **Foster Political Will and Governance:** Secure strong political commitment from governments and build a shared vision for resilience to drive long-term goals and shift narratives within institutions.
- **Enhance Risk Understanding:** Conduct robust risk assessments, improve early warning systems (EWS), and develop strong monitoring capabilities to better understand and predict climate-related risks.
- **Integrate DRR and CCA:** Develop an integrated approach to disaster risk reduction and climate change adaptation, ensuring their combined expertise and institutional capacity are utilized effectively.
- **Invest in Community-Led Initiatives:** Empower and involve communities in DRR and CCA processes, supporting their capacities and promoting local initiatives such as afforestation and mangrove restoration.

RECOMMENDATIONS

IT IS RECOMMENDED THAT MEMBERS NOTE THE FOLLOWING RECOMMENDATIONS :

-Embed disaster risk reduction (DRR) into the core functions of government – from national to local. This includes integrating risk assessments into IDPs, infrastructure planning, and budgeting processes, as required by the Act.

-Provide municipalities with technical support, funding, and policy guidance to establish and maintain effective local disaster management centres. Enhance early warning systems, public communication, and community-based risk planning.

-Create ring-fenced disaster resilience funds within national and provincial budgets. Shift from reactive funding towards predictable, long-term investments in mitigation, infrastructure resilience, and risk-informed development.

-Encourage coordination across sectors such as housing, water, transport, health, and environment. Leverage partnerships with research institutions, private sector innovators, and civil society to enhance data, tools, and technical capacity.

-Support the professionalisation of disaster risk management by developing specialised training, certification, and career pathways. Invest in digital tools, predictive analytics, and climate-smart technologies for better planning and response.

-Accelerate the implementation of the National Disaster Management Framework and Climate Risk and Vulnerability Assessments (CRVAs) at municipal level. Tailor these tools to reflect local hazards, vulnerabilities, and community needs.

-Empower communities through awareness campaigns, training, and participatory planning. Local knowledge and social networks are critical to early response, risk identification, and sustainable recovery.

Thank You!

CIGFARO
Chartered Institute of
Government Finance, Audit & Risk Officers

www.cigfaro.co.za

SAQA Recognised Professional Body