

NATIONAL DISASTER MANAGEMENT CENTRE (NDMC) SOUTH AFRICA

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cooperative
governance

Department:
Cooperative Governance
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EDITORIAL COMMENT

As we navigate the second half of the 2023/2024 financial year, South Africa's calendar is punctuated with significant commemorative days that prompt reflection within the disaster management community. These occasions serve as a catalyst for us to enhance our programs and address gaps in our efforts, aligning with the national agenda.

This publication arrives at a juncture where the global community, guided by the Sendai Framework for Disaster Risk Reduction 2015-2030, underscores the importance of women and women's groups within local communities in driving risk reduction and resilience enhancement. This imperative resonates with the 67th anniversary of the historic march by approximately 20,000 courageous women to the Union Buildings in Pretoria, challenging the apartheid pass laws and demanding recognition of women's rights. August is designated as women's month in South Africa, a time to honor the sacrifices made by these remarkable women, ensuring their voices and concerns are not only heard but also acted upon.

Furthermore, this is an opportunity to acknowledge progress, advocate for change, and celebrate the courage and determination exhibited by South African women, who have played an extraordinary role in the nation's history and continue to contribute to economic and social development. It's also a moment to address pressing issues such as gender inequality and gender-based violence, prompting a call from the government for collaboration between the private sector and non-governmental organizations in addressing these challenges. Unfortunately, the scourge of violence against women still persists, necessitating an intensified effort to deliver inclusive services and drive economic growth for women, leveraging the District Development Model (DDM) to combat persistent inequality.

In September, South Africa celebrates its rich cultural heritage. For the disaster management community, this is an occasion to contemplate ways to integrate indigenous knowledge theories and practices for disaster prevention, mitigation, and response, particularly within indigenous communities. As our nation grapples with the consequences of drought and its impact on food security, there is a growing realization that solutions can be found in the heart of nature. Dr. Mary Scholes, a renowned South African environmental scientist, highlights the unique ability of food trees to tap into deep soil water sources, enabling them to thrive and yield produce even during extended droughts—a phenomenon conventional crops often struggle to match.

As the significance of food trees in addressing South Africa's food security challenges becomes apparent, individuals, communities, and policymakers can contribute to this innovative solution.

In the Eastern Cape Province, the National Disaster Management Centre (NDMC) has played a pivotal role in mitigating the impacts of drought. The coordination of Disaster Management Grants has allowed municipalities to extend pipelines to provide water to drought-affected areas. Municipalities across the province have also undertaken crucial repairs and construction of bridges, water treatment facilities, and access roads to address the prevailing drought crisis.

The NDMC, in partnership with various stakeholders, is committed to promoting formal and informal initiatives that encourage risk-avoidance behavior among state institutions, the private sector, non-governmental organizations, and communities. Additionally, it emphasizes the pivotal role of schools as focal points for raising awareness about Disaster Risk Management and Disaster Risk Reduction, aligning with the National Disaster Management Framework, 2005.

As we share this second Disaster Management Newsletter for the 2023/2024 financial year, the NDMC eagerly anticipates continued contributions from stakeholders to advance the Disaster Risk Reduction Agenda. Please direct your articles of interest to Ms. Pumeza Tyali at PumezaT@ndmc.gov.za.



Dr Bongani Elias Sithole
Head: National Disaster Management Centre
Department of Cooperative Governance

Embracing Indigenous Wisdom in Disaster Risk Reduction: A Call for South Africa's Action

By Koketso Mpshane and Sipho Buthelezi



Source: pictures for indigenous knowledge in africa - Bing images

International bodies like the United Nations and the World Bank have long acknowledged the critical importance of integrating Indigenous Knowledge into Disaster Risk Reduction (DRR) efforts. However, South Africa has yet to fully tap into this valuable resource. Indigenous Knowledge theories and practices have not been systematically consolidated to enhance disaster prevention, mitigation, and response, particularly within indigenous communities. This oversight is in stark contrast to the reality that South African communities have developed rich Indigenous Knowledge practices over the years, which play important roles in DRR initiatives, such as food security, alternative agriculture, water conservation, medicinal products, land use planning, and environmental strategies.

Local or Indigenous Knowledge encompasses the cumulative and intricate reservoirs of knowledge, know-how, practices, and representations that are nurtured and cultivated by local communities with deep-rooted connections to their natural environments (UNESCO, 2012). Indigenous Knowledge is profound in its ability to capture and reflect real-world experiences, information, and insights within specific contexts, demonstrating how people apply this knowledge in their daily lives. This body of knowledge holds substantial and contextually relevant wisdom and information, rooted in direct experiential evidence.

The Disaster Management Act 57 of 2002 (South Africa, 2002) already provides for active engagement of all stakeholders in Disaster Risk Management planning and operations. Importantly, the Act acknowledges the pivotal role that traditional councils can play, particularly in promoting Indigenous Knowledge for sustainable development and disaster management. South Africa's commitment to achieving the Sustainable Development Goals (SDGs) aligns with this gesture, as it accommodates the inclusion of cultural interests, Indigenous Knowledge, environmental considerations, economic factors, and social issues while recognizing their interconnectedness in disaster risk governance.

Establishing consensus and fostering collaboration will facilitate the exchange of progressive knowledge and bolster mutual capacity building. This approach empowers communities to harness their Indigenous Knowledge for developing and implementing coping mechanisms and strategies. It promises to significantly reduce communities' vulnerability to hazards and enhance their resilience. Additionally, communities can craft their own culturally resonant early warning systems, further strengthening their preparedness.

Indigenous Knowledge is an indispensable component of DRR, providing localized solutions that have stood the test of time, proven to be sustainable and effective in disaster reduction and hazard management. Anthropological research has uncovered a wealth of Indigenous Knowledge passed down through generations, deeply ingrained in communities through socialization, and seamlessly woven into their lifestyles. Many organizations dedicated to disaster reduction and response have unearthed countless undocumented and overlooked practices within indigenous communities.

In conclusion, it is important to emphasize the integration of Indigenous Knowledge into Scientific Knowledge Systems. Practitioners must recognize that these knowledge systems complement one another; neither can achieve its full potential without the inclusion of the other. To achieve the SDGs, community involvement in all decisions affecting them is paramount. Cultural knowledge should be documented by communities to prevent distortion and loss of vital information. Continuous advocacy and awareness campaigns are essential for encouraging the adaptation of cultural practices to address climate change challenges. Enabler 2 of the National Disaster Management Framework of 2005 underscores the need for ongoing research in Disaster Risk Management and DRR. Utilizing traditional knowledge can be a potent tool to reduce disasters to the greatest extent possible.



Enhancing Women's Resilience to Disasters through Disaster Risk Reduction Strategies

By Pumeza Tyali

Source: 3rd Disaster Risk Reduction Working Group Meeting (g20.org)

The Sendai Framework for Disaster Risk Reduction 2015-2030 underscores the crucial role of women and women's groups in local communities in mitigating risks and enhancing resilience, especially in regions facing multiple disaster and climate challenges and associated economic shocks. Despite their substantial contributions to Disaster Risk Reduction (DRR) and climate resilience, these efforts by women often go unnoticed and remain underfunded. Women are frequently excluded from meaningful participation in formal DRR decision-making processes, undermining both DRR and gender equality.

Women are disproportionately affected by disasters, often experiencing more severe consequences than men due to social and economic disadvantages. They typically shoulder the responsibility of caring for vulnerable community members and their children, ensuring access to necessities like water and food, and even collecting firewood to support their families.

Disasters exacerbate these challenges, as critical infrastructure is often destroyed, making women's daily chores even more demanding. The absence of municipal services further compounds the difficulties women face while performing these vital tasks. Moreover, the psychological impact of disasters is more pronounced on women, who are primary caregivers for the elderly, disabled individuals, and children.

The vulnerability of women during disasters was evident during the April 2022 floods in KwaZulu-Natal Province, where over 8000 people sought shelter. Reports revealed that Minister Lindiwe Zulu, Minister of Social Development,

acknowledged that the majority of those housed were women and children. Gender-based statistics confirmed that more women and children sought refuge in KwaZulu-Natal shelters than men. Shockingly, observations during assessments at the shelters indicated that women and children's needs, such as sanitary pads and baby supplies, were not adequately prioritized during these disasters.

South African legislation recognizes the needs of vulnerable groups and provides for preventive measures. Section 41(1)(b) of the Constitution of South Africa mandates all government levels to "secure the well-being of the people of the Republic."

The importance of addressing the needs of vulnerable groups in promoting DRR is reflected in the amendment of Section 5(1)(e)(xiv) of the Disaster Management Act, 2002 (Act No. 57 of 2002), which includes "representatives of the national umbrella organizations for women, children, the elderly, and people with disabilities." The National Disaster Management Framework of 2005 also calls for the development and nationwide implementation of an Integrated Public Awareness Strategy.

To implement the Integrated Public Awareness Strategy, the National Disaster Management Centre (NDMC), in collaboration with the South African Weather Service (SAWS), conduct community outreach, awareness campaigns, and training on Impact-Based Early Warning Systems. Empowering women in communities is a priority to enhance their understanding of risk, vulnerability, and Early Warning Systems. Women are recognized as valuable sources of knowledge and play critical roles

as disaster management actors in Community-Based Risk Assessments, often serving as agents for distributing Early Warnings within affected communities.

SAWS recently organized a Regional Workshop involving African countries such as Malawi, Lesotho, eSwatini, and others, held from 10-12 May 2023 in South Africa.

In alignment with the Disaster Management Legislation and the global commitments of the Sendai Framework for Disaster Risk Reduction 2015-2030, the Department of Cooperative Governance and Traditional Affairs, through the NDMC, actively participated in the UN Panel Discussion on Women-Led and Community-Engaged DRR during the 3rd G20 DRR Working Group on 26 July 2023 in Chennai, India, focusing on “Gender Responsive DRR Interventions: Strategies for Enhancing Women’s Resilience to Disasters.”

During this event, the NDMC showcased the nation’s efforts to reduce risk vulnerability among women, including initiatives like Women in DRR Round Table Discussions, Community Outreach Awareness Campaigns and Training on Impact-Based Early Warning Systems, and Workshops on Gender Mainstreaming in End-To-End Early Warning Systems – Flood Forecasting and Integrated Flood Risk Management in the Southern African Development Community (SADC) Region.

Promoting the active participation of women in shaping policies for disaster risk development, implementation, and management is essential. By tapping into the collective knowledge, skills, and experiences of all individuals, these systems can become more comprehensive, inclusive, effective, and resilient in safeguarding vulnerable communities.

Remember, a resilient woman equals a resilient community!





Image Source: Fruit Tree Food - Bing images

Exploring a Sustainable Tomorrow: *Harnessing the Power of Food Trees*

By Sihle Pokwana

Imagine if the enduring food security crisis that our nation faces could be resolved by harnessing the bounties of nature itself. In the relentless pursuit of ensuring that no one goes hungry, a novel concept has emerged: the utilization of food trees. While concerns about food shortages and environmental degradation often keep us awake at night, these remarkable trees may hold the key to addressing both issues simultaneously.

In our country, the challenge of ensuring food security looms large, akin to the foundation of a building – if it is not sturdy, everything else crumbles. Despite advancements in agriculture and technology, the specter of insufficient food persists for many. Traditional farming methods frequently falter in the face of unpredictable weather patterns and volatile market dynamics, making it challenging to maintain a consistent food supply. Therefore, it is imperative that we reimagine our approach to guaranteeing sustenance for all.

One such avenue is the cultivation of food trees, a concept that has not received its due attention in comparison to conventional crops. Surprisingly, food trees have the potential to offer an exceptional solution. Some of these trees bear fruits or nuts, which provide a wholesome source of sustenance. These resilient trees flourish even in less-than-ideal conditions and contribute to soil vitality, rendering it more conducive for cultivating other crops. Notably, they require fewer chemical interventions to thrive.

For years, South Africa has grappled with the paradox of abundance coexisting with scarcity. The nation boasts extensive arable land and a diverse range of crops and produce, yet this abundance is overshadowed by the specter of food insecurity, affecting both rural and urban communities. Conventional farming practices, dependence on rain-fed agriculture, and limited food variety have left many vulnerable to hunger and malnutrition.

Renowned South African environmental scientist, Dr. Mary Scholes, highlights, “Food trees possess a unique ability to tap into deep soil water sources, allowing them to endure and yield produce even during extended droughts – a challenge that conventional crops often struggle to confront.”

As the role of food trees in addressing South Africa's food security predicament becomes increasingly evident, individuals, communities, and policymakers can collaborate to usher in this innovative solution. Several pragmatic steps can be taken to promote the adoption of food trees and contribute to a more resilient, food-secure nation:

Raise Awareness:

Disseminate information about the advantages of food trees, sparking conversations with friends, family, and neighbors to elucidate their potential in combating food insecurity.

Advocate for Policy Support:

Encourage local and national policymakers to recognize the value of food trees in enhancing food security. Urge them to integrate food tree planting programs and incentives into agricultural policies.

Participate in Community Planting Initiatives:

Engage in tree planting events organized by communities and Non-Governmental Organizations to bolster the growth of food trees locally and make a tangible impact on food security.

Support Indigenous Knowledge:

Indigenous food trees often possess traits suitable for local conditions. Support initiatives that conserve and cultivate indigenous food tree species.

Collaborate with Farmers:

Farmers can explore agroforestry, combining tree cultivation with traditional crop farming to boost yields and sustainability.

Promote Research and Education:

Back research endeavors that identify suitable food tree species for different South African regions. Encourage educational institutions to incorporate food tree cultivation into their agricultural curricula.

Connect with Resources:

Stay informed by engaging with organizations and institutions specializing in agroforestry and sustainable agriculture. The South African National Biodiversity Institute (SANBI) serves as a valuable resource for information and guidance on indigenous plants, including food trees.

In the words of Dr. Rachel Wynberg, a professor of environmental humanities, "The potential of food trees to revolutionize our food security landscape hinges on the collective actions of individuals and communities." By taking proactive measures and embracing the concept of food trees collectively, South Africa can not only confront its food security but also pave the way toward a more resilient, sustainable, and nourished future for all.





MONITORING OF FUNDED PROJECTS BY THE NATIONAL DISASTER MANAGEMENT CENTRE

Addressing the Eastern Cape's Ongoing Struggle with Drought and Climate Crisis

By Bakang Mebalo

Since 2005, the Eastern Cape has been grappling with severe droughts, largely attributed to the global climate change crisis. Dams in the region have reached alarmingly low levels, leading to a concerning decline in the quality and cleanliness of drinking water. This dire situation has compelled our municipalities to launch a concentrated effort in water treatment, as the consequences have rippled through society, negatively impacting various aspects of life, including water supply and agricultural activities. The resulting conditions have significantly increased the cost of living, particularly affecting vulnerable communities and farmers who heavily rely on rain-fed agriculture. Additionally, the region faces projected increases in climate-related extremes, such as drought disasters and flooding.

From July 10 to 14, 2023, Dr. Elias Sithole, the Head of the National Disaster Management Centre (NDMC), led a team that included the NDMC Team and representatives from affected sector departments to visit the Eastern Cape Province. Their purpose was to conduct monitoring of projects funded by the NDMC. Mr. Philela Mabandla, Head of the Eastern Cape Provincial Disaster Management Centre, also joined the monitoring team.

In collaboration with affected sector departments, private businesses, non-governmental organizations (NGOs), and non-profit organizations, the NDMC has been working tirelessly to assist the affected communities. Their efforts have included providing humanitarian aid such as shelters, food, water, sanitation, and safety and security measures during this ongoing disaster.

Through the Disaster Management Grants, municipalities have extended pipelines to supply water to drought-stricken areas. Moreover, municipalities across the province have undertaken repair and construction projects for bridges, water treatment facilities, and access roads to address the pervasive drought issue. Challenges faced during project implementation include the impacts of COVID-19, disruptions in the supply of engineering materials due to the Ukraine War, and outbreaks of community unrest.

The disaster response projects have yielded numerous benefits for communities in the province:

- Local employment opportunities have been created through various projects.
- Local individuals have been empowered through construction courses, including safety and first aid training.
- Empowerment initiatives have extended to women, particularly in the construction of Gabion Baskets.
- Communities now have improved access to essential services like healthcare and educational facilities, such as schools.



In conclusion, Ms. Vespa Mabitsi of the NDMC expressed appreciation for the municipalities' dedicated efforts to uphold the rights of South African citizens, especially recognizing that access to water is a fundamental right. She offered valuable guidance to municipalities on several key aspects:

- Developing infrastructure maintenance plans to ensure the sustainability of water supply.
- Having preparedness and contingency plans in place.
- Deploying security personnel at water infrastructure sites to prevent vandalism.
- Encouraging public-private partnerships to enhance disaster response.
- Ensuring compliance with environmental legislation during construction projects.

The collective commitment of all stakeholders remains vital as Eastern Cape continues to confront the challenges posed by climate change and drought.



SCIENCE AWARENESS WEEK AT HARRY GWALA DISTRICT MUNICIPALITY

By Pumeza Tyali

Globally, there is an agreement that space exploration and the application of space technologies are essential to solving many of the challenges that we face, and we will face in the future. Knowledge of space technologies improves our ability to manage and sustain our natural environment and resources, increase the mobility of people and products and deal with the health and security threats. This further offers instant communication, enables us to accurately observe and locate any spot on Earth and empowers us to timeously foresee and deal with economic and human catastrophes. As a technologically advancing country and part of the global village, South Africa is increasingly also reliant on space-based services and applications. In a world where natural disasters are an increasingly prominent threat, the role of science and technology in disaster management is paramount. Science and technology can help us to:

Overview of Science and Technology in Disaster

Management

Section 20 of the Disaster Management Act, 2002 (Act No. 57 of 2002 – the Act) obligates the National Disaster Management Centre (NDMC) to promote formal and informal initiatives that encourage risk-avoidance behaviour by organs of state, the private sector, Non-Governmental Organisations, and communities. Section 6.3.3 of the National Disaster Management Framework, 2005 (NDMF) also advocates that schools must be regarded as focal points for raising awareness about Disaster Risk Management (DRM) and Disaster Risk Reduction (DRR). The NDMF further advises that aspects of DRM must be integrated into the existing education programmes of relevant professions associated with DRM.

The NDMC joined the South African National Space Agency (SANSA) at the Science Awareness Week at Harry Gwala District Municipality on 15-16 May 2023 in collaboration with the

Department of Education (DoE), KwaZulu-Natal Provincial Disaster Management Centre, Department of Science and Innovation, South African National Energy Development Institute, South African National Biodiversity Institute (SANBI) and the South African Agency for Science and Technology Advancement (SAASTA). SANSA coordinates Science Awareness Programmes across the country to, among others, (i) promote science advancement and public engagement, (ii) participate in national science awareness events, and (iii) encourage studies in science, engineering, etc. According to SAASTA, the Science Awareness Programme aims to improve the levels of awareness, enjoyment and interest in science for all of society. A key driver for science awareness activities is to provide members of the public, Institutions of Higher Learning and high schools the opportunity to access information around careers, research projects, infrastructure and benefits to the public.

This gives effect to Sustainable Development Goals (Goal 4), which strives to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Furthermore, this ensures that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for

sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development by 2030.

The first engagement took place at Zwelinzima Secondary School and the session was coordinated by the District DoE. The Deputy Curriculum Education Specialist responsible for Physical Science within District DoE; Mr Mthembu, highlighted that the District performance statistics of 81% in Physical Science and 52% in Mathematics from 2022 academic year.



Day 1 of HGDM Science Week at Zwelinzima Senior Secondary School

The second engagement took place on the 16th of May 2023 in the Dr Nkosazana Dlamini-Zuma Local Municipality within Harry Gwala District. The learners were split into groups to visit the different science exhibition stands, after which they were treated to SAASTA drone flying demonstration for the group photo outside the school hall and SANSA Global Positioning System (GPS) demonstration.



Arrival and setup at Sonyongwana High School

The interactive NDMC presentation focused on the natural and manmade disasters, their causes, with a focus on the school environment. It highlighted careers for disaster practitioners, with reference to recent disasters in KwaZulu-Natal and other parts of South Africa. The presentation highlighted how government works and the various stakeholders involved in disaster management, including the mandate of NDMC, and what learners must do in the case of fires at their schools. The total number of learners engaged for the first day **was 418 and 246** for the second day.



The SANSA and NDMC Teams with KZN PDMC and SAASTA

