

nternational Dayfor Disaster Reduction (IDDR) 2018 was commemorated at Naba Lodge in Upington in the Northern Cape on 15 and 16 November 2018 and was hosted by the National Disaster Management Centre (NDMC), in collaboration with the Northern Cape Provincial Disaster Management Centre (NC PDMC) and ZF Mgcawu District Municipality. The commemoration was held over two days and included a Disaster Risk Management Practitioner's Session with 179 participants and 350 people in attendance for the main IDDR commemoration event.

Since its inception in 1989, after a call by the United Nations General Assembly for a day to promote a global culture of risk-awareness and disaster reduction, IDDR celebrated annually on, 13 October has been raising awareness of how people as individuals and communities around the world reduce their exposure to disasters and educating others about the need to reduce the risks.

The gathering of various sectors in Upington provided an opportunity to not only celebrate this important day but to reflect, share case studies and plan going forward how every person can contribute in reducing the risk of disasters. The two days engagements were seized with the question, "How do we reduce disaster risk and build

resilience by moving from commitments to impactful action?"

## Disaster Risk Management Practitioner's Session

Climate change was raised sharply as one of the key challenges facing communities through changes in weather and climate hazards. Natural hazards and climate change extremes pose a significant development challenge to the region. The issue of drought dominated discussions as the Northern Cape, like many other Provinces across the country was affected by drought; hence it became a simple case study understood by all in attendance looking at its negative impact.

Phillip Seane, acting chief director of the Northern Cape PDMC, welcomed delegates and encouraged all stakeholders to increase their levels of disaster risk preparedness and in their areas of work to be ready for eventualities, as disasters do not negotiate their occurrence and their associated impacts. "Disasters are a reality, for example drought, veld and urban fires that are being experienced in many parts of South Africa", said Seane.

Dr Mmaphaka Tau, head of the NDMC, said in his presentation that the deliberations and resolutions of the DRM Practitioners Session must positively contribute towards service delivery. Dr Tau said that on 28 October 1982, the World Charter on Nature was developed and adopted by most countries of the world, which



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emphasised a collective endeavour to protect nature and advance sustainable use of natural resources, both biotic and abiotic. The Charter echoed a need for the development and implementation of integrated measures and plans aimed at disaster risk reduction.

He emphasised the need for development programmes that will result in accumulated positive change and reduce the risk of disasters. Dr Tau highlighted the strategic role of disaster risk management in the attainment of the Sustainable Development Goals (SDGs) that are fundamental pillars of Disaster Risk Reduction and sustainable development and growth. Dr Tau encouraged all practitioners to think globally and act locally.

Nosiseko Mashiyi of the South African National Space Agency (SANSA) discussed the 'Effects of drought on vegetation: Earth Observation' and presented an overview of SANSA's programmes and products that support disaster risk management functions such as the National Mosaic that spans from 2006 to 2016, outlining landscape changes over time. Mashiyi emphasised the relevance of Earth Observation's data as an enhancer in human settlements mapping and monitoring; water resources mapping and monitoring; disaster management based on real-time data and the vegetation mapping and monitoring. She added that data on drought monitoring is one of the valuable data sets, which could assist disaster managers in managing and monitoring drought, including simulation of potential impacts to crops and rangelands.

The South African Weather Services' (SAWS) Mnikeli Ndabambi discussed 'Climate variability and climate change: exploring modelling scenarios for the country' and said that South Africa is affected by global climatic conditions. South Africa is amongst countries projected to experience an increase of between one to two degrees Celsius per annum of near-surface temperatures, suggesting global warming is upon us. He added that weather and climate is unavoidable and impacts in the economy, lives and social dimension. Ndabambi encouraged all participants to continue with the implementation of the Paris Agreement as part of contributing towards reducing the impact of climate change. He warned participants of the forecasted risk of prolonged and long term drought. "We need to move towards rotating climate sensitive route".

Louwrens Ferreira of the Department of Environmental Affairs (DEA) presented on a 'Nexus between invasive plants and drought: the effect of invasive plants



in ecosystems of the Northern Cape', highlighting the negative effect of invasive plants as a factor that reduced the mean annual runoff. His presentation focused on the Savannah and Nama Karoo Biomes. Ferreira reported that 97 percent of the Northern Cape is exposed to risk of degradation due to high populations of invasive plants such as the honey mesquite and velvet mesquite, which are the main Category 3 invader Prosopis species in the province. He added that about 360 000ha of land in the Northern Cape had closed Prosopis stands that used about 90 billion litres of water per annum. "Since 2001 to date, Working for Water has cleared about 63 000ha of land infested with Prosopis sp. at a cost of R220 million."

Mr O Thebe, Department of Water and Sanitation, discussed the approach used by his department in managing drought conditions and highlighted four key drought types. He said that at the start of the current drought, there was confusion on who had to lead the response coordination. Thebe added that this was attributable to lack of understanding on who the owner of a drought disaster was. He emphasised the need to improve coordination in the assessment and verification of drought and to ensure rapid response to water shortages as a result of drought. He highlighted the need for improvement of capacity of municipalities or Water Service Boards as implementing agents of water supply to localities. He further highlighted the need for an enhanced drought monitoring and floods early warning systems and the need to improve and better coordinate communication in the management of drought or any future disasters such as floods.

Exploring adaptation scenarios: drought, a multi-faceted, slow-onset phenomena was the topic of Dr Mokhele Moeletsi of the Agricultural Research Council, South

Africa (ARC). Dr Moeletsi shared details on a number of ARC's research programmes including rainwater harvesting technology. He encouraged participants to promote conservation agriculture through minimum tillage as an adaptation strategy to drought. "The development of drought early warning systems is necessary and improved drought information dissemination to users."

The KwaZulu-Natal PDMC's Sibongiseni Ngema discussed 'Drought management: interventions in sustaining the provincial economic activities/drivers in KwaZulu-Natal' and shared the province's experiences in managing disaster including the role of the PDMC coordinating, facilitation and provisioning of support. Ngema illustrated through the Standardised Precipitation Index (SPI) that the northern parts of KwaZulu-Natal was the most drought-stricken areas. He reported on various interventions implemented by the province as part of managing the drought such as the war on water leaks, the implementation of water restrictions and the supply of water tankers to communities by Department of Water and Sanitation. "The Department of Basic Education (DBE) installed water tanks in some schools in areas of high risk of water scarcity. The province drilled, equipped and refurbished some boreholes. A further funding of R122 Million was approved for the extension of drought interventions.

Kwela Nceba of the Western Cape PDMC presented on 'Drought management: Interventions in sustaining the provincial economic activities/drivers in the Western Cape' and outlined various strategies deployed by the Western Cape Government in averting 'Day-Zero'. Nceba shared few proposals for future management of slow-onset disasters such as drought ie clarity on the roles between various government sector departments and consistent risk communication and messaging.

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Voice of Farmers' Ms S Vivashi provided information about her farming enterprise and highlighted some of the challenges farmers face during drought conditions. She farms three commodities ie cattle, goats and sheep and said that there has been a substantial decrease in rainfall and veld production recently, which impacted on livestock productivity and source of livelihood. As a farmer, she was forced to adapt her farming approach, fed livestock and send them into the market earlier than it is of economic benefit. Amongst challenges highlighted, was the lack of support for small-scale or emerging farmers.

Land care for agricultural productivity was the topic of Victor Mohlabe of the Department of Agriculture, Forestry and Fisheries (DAFF)'s presentation who said that land degradation is a result of human actions. He emphasised the importance of sustained interventions in addressing long term drought impacts and emphasised the need to educate the youth and build human capacity (information) in mitigating the effects of disasters.

A case study on capacitating Namakwa District Municipality Fire Services was presented by Leon Vermeulen of Karoo Hoogland Municipality and the NDMC's Lloyd Phetlhu as supported by Santam.

Dr Moses Khangale of the NDMC presented on the current partnerships between the NDMC and the Namakwa District Municipality in building the capacity of fire services in the district. Dr Khangale also presented a 12 point plan on improving veld fire preparedness by district municipalities, with a special focus on the Namakwa District Municipality. In addition, he discussed the role of the private sector in disaster risk management on behalf of Santam.

Nkosizanokusa Mankayi of the Council for Geoscience discussed prevalent geo-hazards in South Africa, outlining the council's functions and highlighted the need for coordination towards sustainable development on dolomitic land. She said that Dolomite occurrence is prominent in parts of the Northern Cape ie and parts of the North West, extending to Gauteng. Mankayi highlighted that repairing sinkholes is very costly. She emphasised sustainable land use and management practices in dolomitic areas adding that sinkholes influence property value. "Water management is critical for houses build on dolomitic sites."

## **IDDR 2018 commemorations**

The Minister of Cooperative Governance and Traditional Affairs (CoGTA), Dr Zweli Mkhize, led South Africa's celebration of the 2018 International Day for Disaster Risk Reduction (IDDR) calling on better planning and coordination to implement disaster risk reduction plans. Minister Mkhize was joined by the premier of Northern Cape, Sylvia Lucas; MEC responsible for Local Government in the Northern Cape, Bentley Vass; the executive mayor of Dawid Kruiper Local Municipality, Mayor Limakatso Koloi; acting executive mayor of ZF Mgcawu District Municipality, Mayor Mpho Mashila as well as key stakeholders including councillors, emerging farmers, traditional leaders and representatives of private sector institutions.

The second day of the IDDR celebration began with a site visit of the 323km flood diversion wall project in the vicinity of Upington along the banks of Orange River. This project will benefit farmers who suffered extensive multiple damages due to flooding of the Orange River. Once fully completed, the project will have cost around R1,1billion. From the disaster point of view, this wall

protects economic investment such as the farms managed by the emerging farmers. The high proportions of Prosopis invader plant species with its deep root systems and high water consumption deplete the groundwater table with a potential to cause land degradation and ultimately, desertification.

Addressing delegates, Premier Sylvia Lucas called for better planning for disasters to ensure preparedness and also emphasised the need for resourcing such plans for better and impactful implementation.

In his address, Minister Mkhize emphasised the significance of IDDR as a celebration of how people and communities around the world are reducing their exposure to disasters, which will in turn contribute to the achievement of IDDR 2018 theme. 'Investing in disaster risk reduction for resilience', reducing direct disaster economic losses in relation to gross domestic product by 2030. He called for the reduction of exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, improving preparedness and early warning for adverse events are all important and will surely assist in medium to long term to reduce the risk of disasters.

Minister Mkhize said that even though the country received summer rainfalls in different parts, drought conditions persisted particularly in the Western Cape, Eastern Cape and Northern Cape provinces where provincial state of disasters were declared in terms of the Disaster Management Act, 2002. He highlighted the funding totalling R79,1 million allocated to dealing with the challenges of drought during 2017/2018. For the 2018/19 financial year, R84,6 million was allocated to the Provincial Department of Agriculture, Land Reform and Rural Development for the transportation and provision of livestock feed to the affected farming communities.

He also touched on the negative effects of veld fires within the context of disasters as it also poses a major hazard to human lives, livelihoods and ecosystem and property.

In conclusion, Minister Mkhize called for disaster risk reduction and increased resilience anchored on collaboration across governments and key stakeholders to generate and making more effective use of scientific data and information, identification of knowledge, use indigenous knowledge and capacity gaps and co-produce solutions that can effectively support decisions and actions towards resilience building.

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