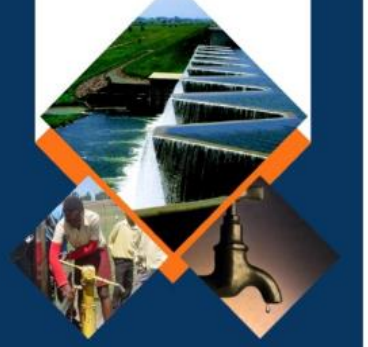
UMNGENI
RESILIENCE PROJECT

uMGUNGUNDLOVU
UMASIPALA WESIFUNDA
DISTRICT MUNICIPALITY
DISTRIK MUNISIPALITEIT

uMngeni Resilience Project Overview

16 February 2018



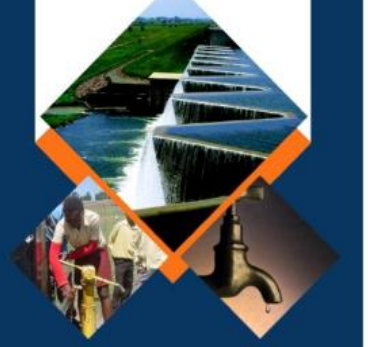
District Climate Change Response Strategy found that:

- KZN Midlands area is an area of high climate change risk.
- Predictions:
  - warmer future,
  - increased frequency and intensity of severe storms and flash flooding,
  - Lightning strikes are predicted to increase as a result of climate change,
  - Increased potential for drought events
- Impact likely to be severe:
  - many vulnerable communities which are heavily dependent on natural resources

uMDM Vulnerabilities

- Housing located close to river watercourses or on flood plains
- Housing located on steep hillsides
- Traditional and formal building methods not designed to withstand the new reality (increased magnitude and frequency of storms & floods)
- Heavy reliance on natural resources
- Unsustainable practices on communal grazing lands (grasslands)
- Small scale farmers using crops and methods that increase vulnerability (eg: monocropping)
- Triple threat of poverty, inequality and unemployment
- Population that is young and significant percentage (30%) in traditional and informal housing

uMDM CC Response Strategy, 2013
+ Stats SA 2017



Project Description

The overall objective of the URP is to reduce the vulnerability and increase resilience and adaptive capacity of vulnerable communities and small scale farmers in the uMDM to the impacts of climate change, through an integrated adaptation approach

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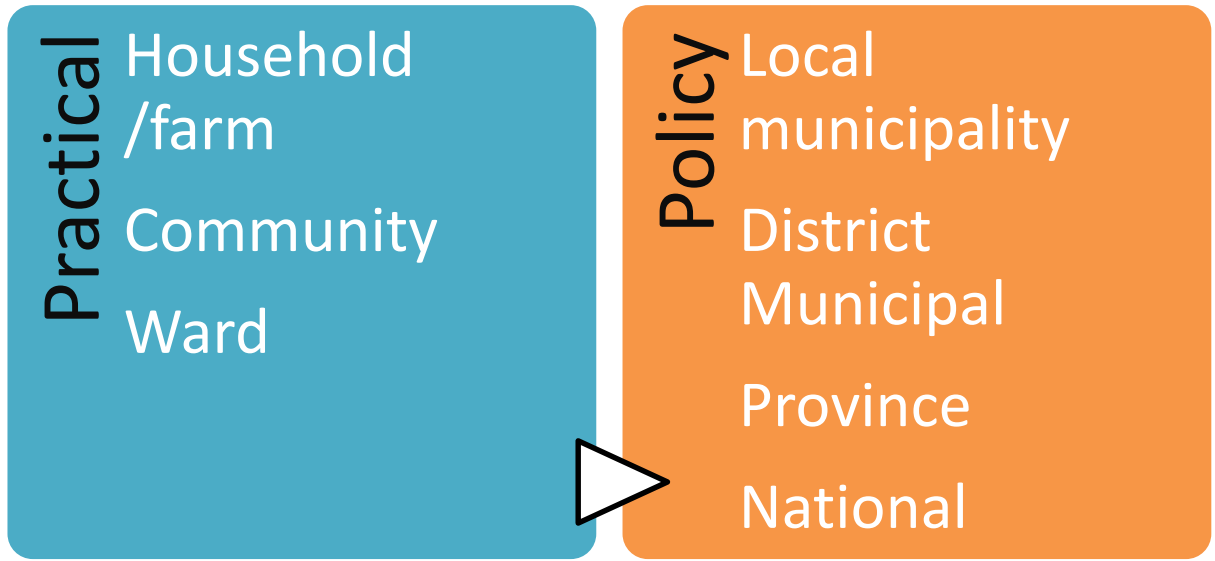
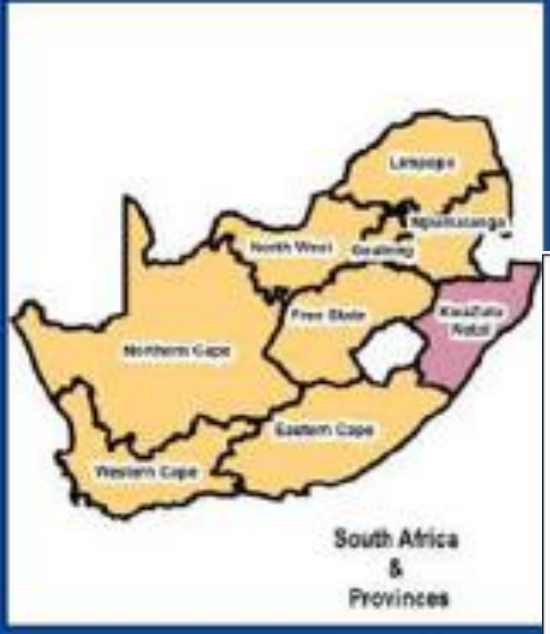
Objective

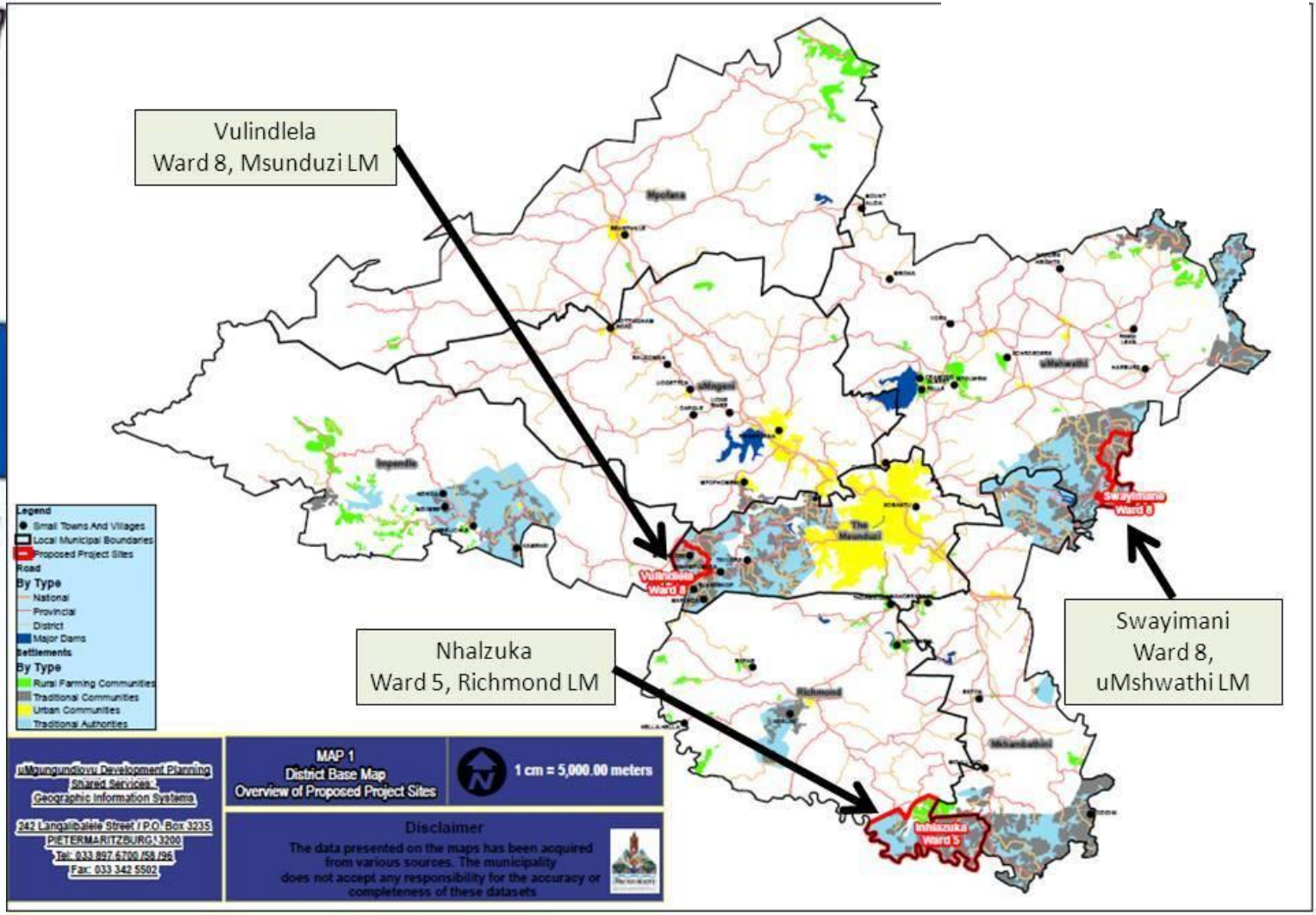
Reduce the vulnerability & increase resilience to the impacts of climate change

Capacitating communities to find the means to continuously adapt to ever changing weather patterns.



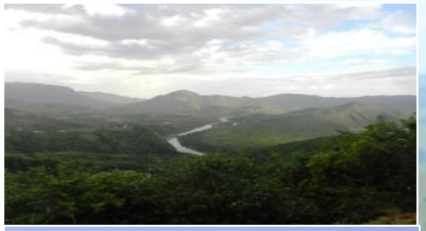

Limpopo
Mpumalanga
North West
Gauteng
Free State
KwaZulu Natal
Northern Cape
Eastern Cape
Western Cape
South Africa
&
Provinces


Province of KwaZulu Natal
&
District Municipalities


Vulindlela
Ward 8, Msunduzi LM
Nhalzuka
Ward 5, Richmond LM
Swayimani
Ward 8,
uMshwathi LM
Mpofana
Impendle
uMngeni
uMshwathi
The Msunduzi
Richmond
Mkhambathini
Vulindlela Ward 8
Swayimani Ward 8
Inhlazuka Ward 5
Legend
Small Towns And Villages
Local Municipal Boundaries
Proposed Project Sites
Road
By Type
National
Provincial
District
Major Dams
Settlements
By Type
Rural Farming Communities
Traditional Communities
Urban Communities
Traditional Authorities
uMgungundlovu Development Planning
Shared Services
Geographic Information Systems
242 Langalibalele Street / P.O. Box 3235
PIETERMARITZBURG, 3200
Tel: 033 897 6700 /58 /96
Fax: 033 342 5502
MAP 1
District Base Map
Overview of Proposed Project Sites
1 cm = 5,000.00 meters
Disclaimer
The data presented on the maps has been acquired from various sources. The municipality does not accept any responsibility for the accuracy or completeness of these datasets

URP- integrated approach to adaptation

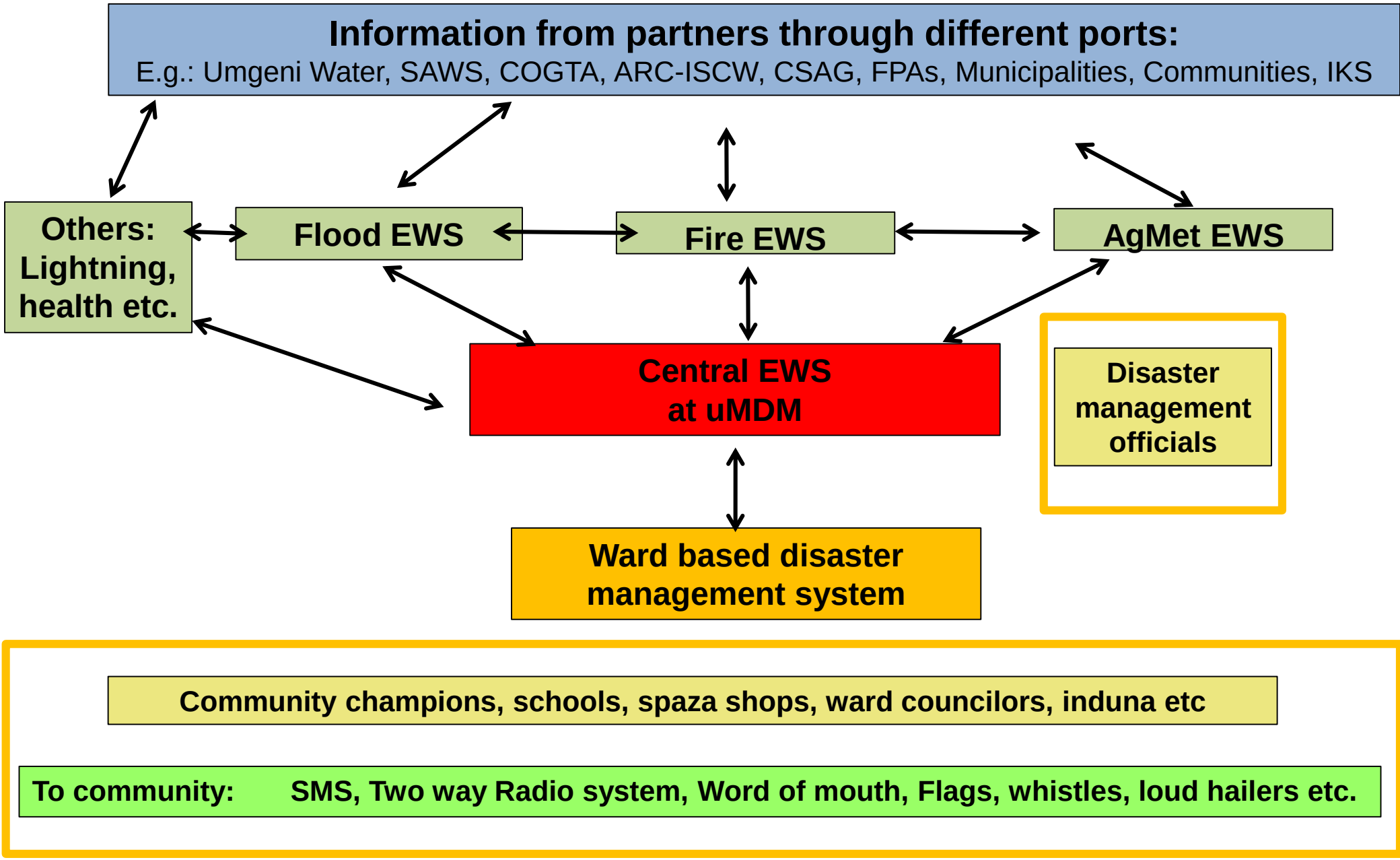
Component	Objective
Component 1	**Early warning systems** Early warning and response systems improve preparedness and adaptive capacity of local communities and small scale farmers, drawing on and integrating scientific and local knowledge.
Component 2	**Climate-proof settlements** A combination of ecological and engineering solutions reduces vulnerability of communities to existing and anticipated impacts of climate variability and change.
Component 3	**Climate-resilient agriculture** Small scale farmers have improved resilience and reduced vulnerability to existing and anticipated impacts of climate variability and change.
Component 4	**Capacity building and learning** Capacity building and sharing of lessons and policy recommendations facilitates scaling up and replication.



Component 1: Early warning systems

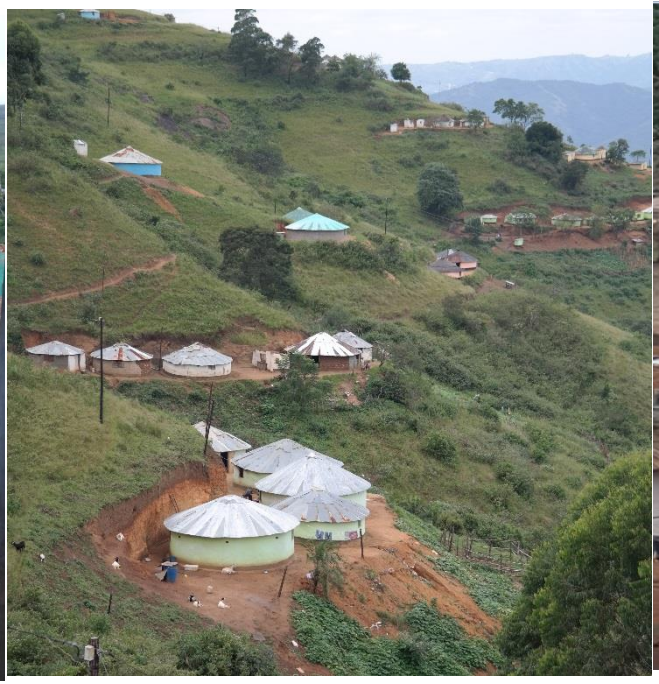
Combining indigenous knowledge and scientific knowledge to improve preparedness of communities and officials

Ward-based Integrated EWS



Climate-proof settlements (engineering solutions)

Critical settlement infrastructure, community facilities and homes will be strengthened and stabilised



Climate-proof settlements (ecological solutions)

Ecological infrastructure will be rehabilitated to buffer communities against increased extreme weather events.

- restored **grassland**
- rehabilitated **riparian zones**
- **alien vegetation removed** to prevent bush encroachment
- **Firebreaks**
- **rangeland management plan**

Climate-proof settlements

Tools for mainstreaming adaptation considerations into municipal planning processes

community

Sustainable livelihoods training:

- household risk reduction,
- environmental awareness,
- food security &nutrition,
- basic financial management (eg budgeting & saving)

Policy

mainstreaming

mainstreaming tool

Climate Resilient Agriculture

Reducing vulnerability at **farm** level

- Build climate resilient farming methodologies into farming practices for small scale farmers:
  - (re)introduce high drought and heat tolerant crops (eg: canola, cowpea)
  - Look at crops with stable yields
  - Look at crops with good nutritional value
- Combining scientific methods and local knowledge
- Increase yields and access to markets

Climate Resilient Agriculture

Reducing vulnerability at **policy** level

- Working to LED departments to support and formalise co-ops
- Providing training to DARD Extension Officers
- Ensure mainstreaming into DARD practices

Improving capacity and sharing learnings

- Community champions, councilors and officials
- Community Resilience Committees
  - support and guide the implementation of URP and advocate for a more climate-resilient community.
- Schools' Programme

Improving capacity and sharing learnings

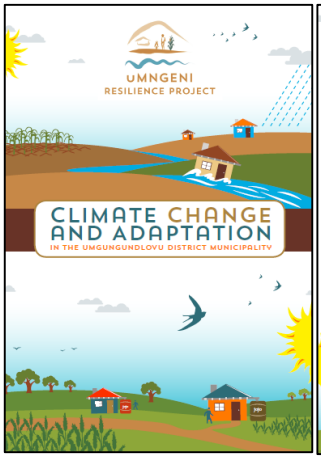
- Developing research agenda:
  - Top- up bursaries for Masters and PhD studies
  - Internships
- Sharing lessons and sustaining outcomes:
  - Community to community
  - Across uMDM
  - Across and beyond KZN

Highlights Y1 and Y2

- National workshop on early warning systems
- EWS component a pilot for the NFCS-SA
- Facilitated MOUs for cooperation and data sharing: SAWS & UKZN; SAWS & Umgeni Water
- Established a Steering Committee for Component 1: uMDM, UKZN, SAWS, DEA, uMngeni Water, Central University of Technology and University of Cape Town.
- Data collection of indigenous knowledge for integration into EWS

Highlights Y1 and Y2

- Partnerships with provincial departments:
  - DARD: training programme for EOs and scientists
  - EDTEA: climate change module in schools' programme
- 221 farmers: 163 women 20 youth
- Farmer learning exchange
- Supplying cabbage, spinach, carrot and green pepper to local Spar (Wartburg)



Thank you!

uMNGENI
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