

#### Introduction



- The adoption of sustainable land management practices is critical as a global response to food security, climate change, land degradation.
- South Africa is reported to have 60% of land degradation and the eastern Cape being the most affected.
- Conservation agriculture (CA) has potential to reverse land degradation, increase crop yields and improved food security.





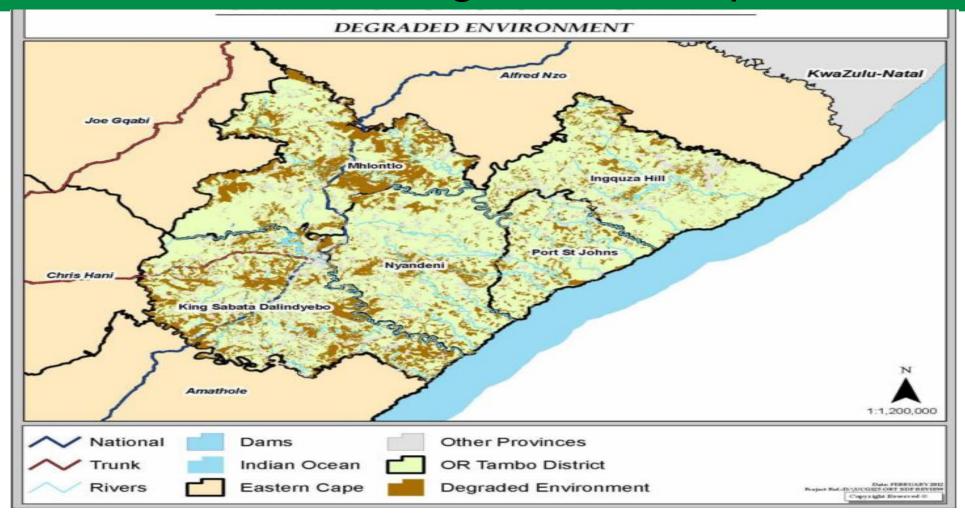
#### Introduction Conti.....



- Through LandCare Programme communities and individuals adopt an ecologically sustainable approach to the management environment and natural resources.
- LandCare promote sustainability of natural resources through SoilCare,
  VeldCare, WaterCare, JuniorCare.



## District Degradation Map









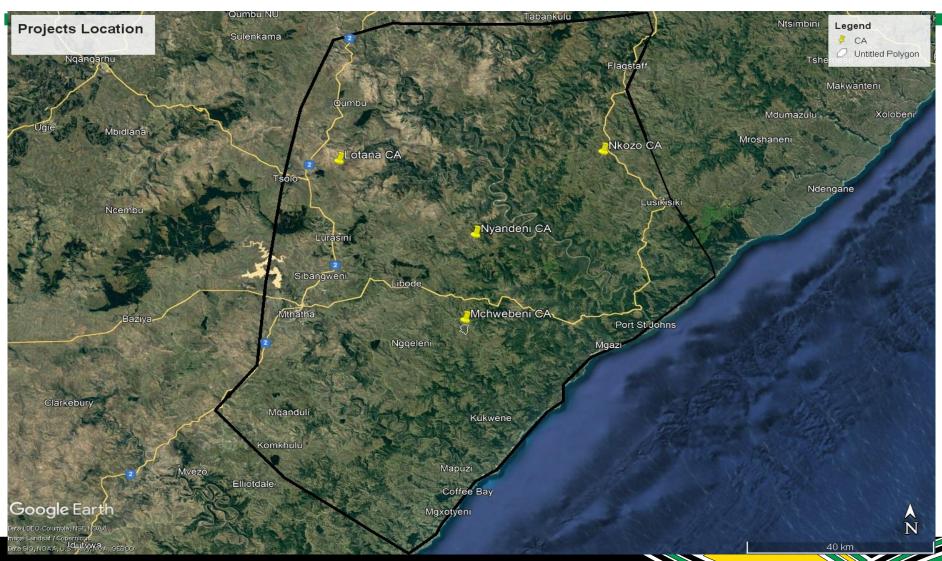
### Purpose of the study



The study was conducted to assess the influence of awareness campaign and training on the adoption of CA and to reveal the adoption status. Furthermore the study explores the challenges that are affecting the adoption of CA in rural farming environment

# Project site





### Project Rollout



- The study is based on the four CA Landcare funded projects with 4 row planter plus a boom sprayer and inputs excerpt Lotana
- Nkozo project was the first CA Landcare project that was implemented as a pilot in
  2017 where CA was implemented in 30 ha of the 300 ha of land
- Mchwebeni was initiated in 2019 on 60 ha of the 375 ha of the communal arable land
- Nyandeni project was implemented in 2021 on 20 ha of the 150 ha communal arable land while Lotana was implemented on 20 ha of 1000ha

# **Project Rollout**



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Project	Size	NRM Problem	Project Start	Funding received
Nkozo	300 30 CA	Erosion Acidity Soil nutrient depletion	2017	2 row & 4 row No-till planter Tractor Boom spray Inputs
Mchwebeni	375 60 CA	Soil nutrient depletion Erosion	2019	4 row No-till planter Tractor Boom spray Inputs jobs
Nyandeni	150 20 CA	Erosion Acidity Soil nutrient depletion	2021	4 row No-till planter Boom spray Inputs jobs
Lotana	1000 20 CA	Erosion Acidity Bush encroachment	2022	4 row No-till planter Boom spray Inputs jobs



### Awareness and trainings



- Awareness Campaigns were done before the implementation of every project with follow-up awareness through information days during the production period
- For each awareness the target audience was the land users in the community where the project is implemented
- Information days were conducted during the growing season and other farmers from different LandCare CA projects formed part
- CA accredited trainings were offered to project members before the implementation

# Number of people reached



Project	2017	2018	2019	2020	2021	2022
Nkozo	250	200	200	100	150	0
Mchwebeni	0	0	60	60	150	150
				4.0	4.50	4.50
Nyandeni	0	0	0	40	150	150
Latana	0	0	0	0	20	400
Lotana	0	0	0	0	20	100
Total	250	200	260	200	470	400
IUIAI	250	200	200	200	4/0	400

# Project Lands before CA Implementation







## Field Visits during Awareness campaign











# Impact of Awareness campaign and Training





## Land under CA



#### Hectares of land under CA in different years

Project	2017	2018	2019	2020	2021	2022
Nkozo	30	30	80	110	110	80
Mchwebeni	0	0	60	60	80	80
Nyandeni	0	0	0	20	52	52
Lotana	0	0	0	0	0	20
Total	30	30	140	190	242	222

### Impact on eroded land





Prosperous and sustainable Livelihoods

# Maize growth and yield









### Average maize yield for different years in ton/ha

Project	2017	2018	2020	2021	2022
Nkozo	2.5	3.5	4	4	4
Mchwebeni	1.29	1.8	3	3	4
Nyandeni	3	3	3.25	4	3.5
Lotana	2.5	3	3	2.5	4

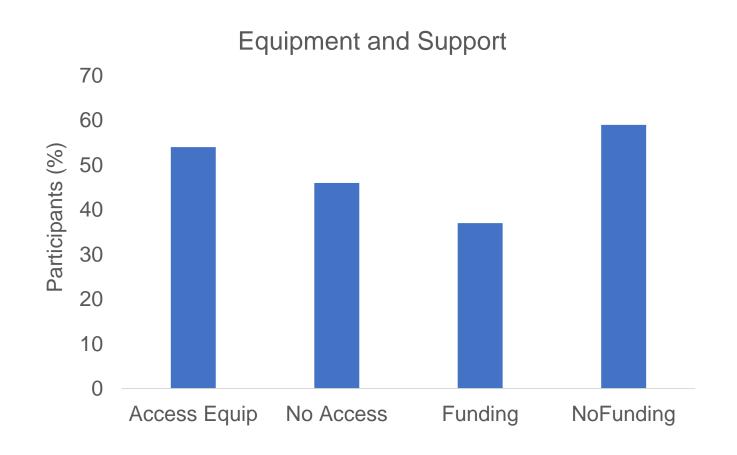
# CA impact on production cost



	Conventional Agriculture R/ha			Conserva	tion Agricul	ture R/ha
Activity	2020	2021	2022	2020	2021	2022
Plough	700	800	1200	0	0	0
Disc	600	600	750	0	0	0
Planter	550	750	1000	550	750	1000
Spaying	400	400	600	400	400	600
Total	2250	2550	3550	950	1150	1600

# Factors limiting the adoption of CA





# Equipment funded





## Challenges



- Slow adoption of the technique due to Lack of machinery.
- Reverse adoption
- Lack of diversification
- No control of livestock due to land tenure soil cover not attained

### Conclusion



- Awareness campaign and trainings have assisted in transferring the knowledge and contributed in the spread of CA practice.
- No-till principle of CA is the most adopted and there is a steady increase in the practice of CA even though the rate is slow.
- Farmers are drawn to CA driven by the production cost but access to equipment is a hindrance

#### Recommendations



- Funding extension to accommodate extra people
- Machinery (Tractor funding)
- More field days/Information days
- Capacity building
- Partners' involvement



