

Rural Livelihoods, Learning and Visioning under a Changing Climate: An Eastern Cape Experience

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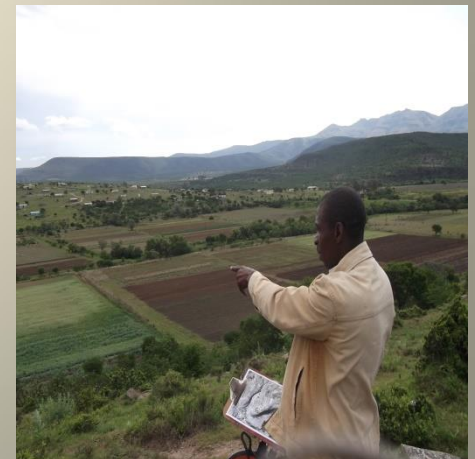


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Where leaders learn



Introduction

- Learning about and embracing change have become increasingly important in the field of climate change adaptation (Fazey et al. 2010 and 2013)
- Embracing change includes:
 - ❖ Capacity for innovation (Folke et al. 2002)
 - ❖ The ability to learn from mistakes (Adger et al. 2003)
 - ❖ Experiences of dealing with change (Berkes et al. 2008)
 - ❖ New adaptation practices (Shackleton et al. 2013)



Introduction

Participatory Scenario Planning is a systematic method for creatively analysing complex futures (Wollenberg et al. 2000a and Peterson et al. 2003)

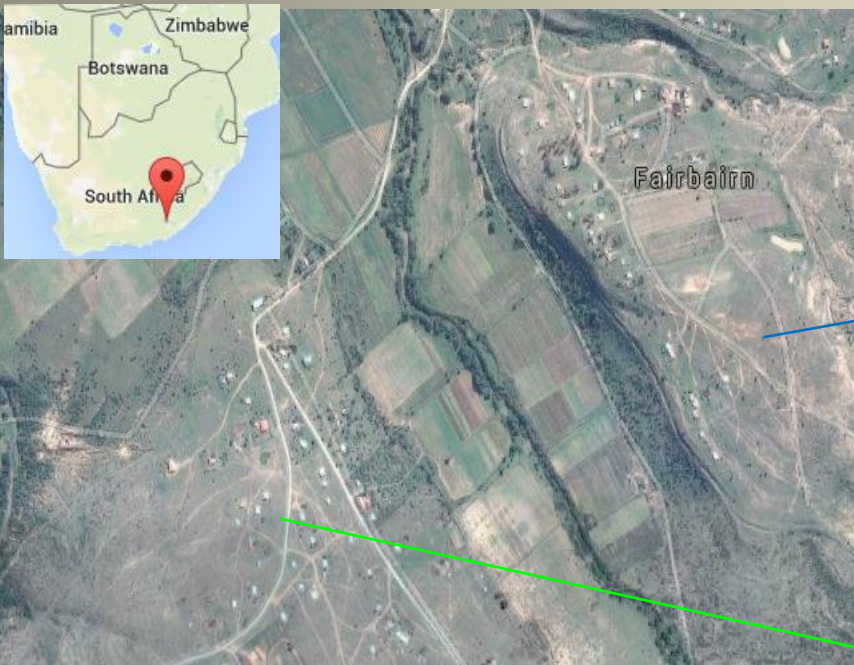
“Scenarios can be generally useful to evoke and **communicate people’s ambitions, plans and perceptions of change**, as well as to help people **adapt to change** and **achieve their vision** of the future” Wollenberg et al. (2000b)

- Help people to bring forth more ideas of the future that come out from outside of the decision-making or management framework (Tschakert et al. 2014)
- Allows the incorporation of external knowledge in scenario building i.e. downscaled climate projections (Tschakert et al. 2014)



There are limited studies that explore forward-looking in climate change adaptation in the Eastern Cape

Study Area



Privately owned Fields – Tomu Clan



State Land

- Climate: ± 688 mean annual rainfall
- Population: ± 400 in 60 HHs
- Demographic Info:
 - Languages: IsiXhosa & Afrikaans
 - Unemployment: $\pm 48\%$ (municipality)

Stats Sa 2011

General objective and Key Questions

General objective :

- To explore future scenarios with communities for adaptation to current and future changes including climate change

Key Questions:

- What are the past and future drivers of change?
- What will the future be like in 2050?
- What kind of a future does the community desire and how will you achieve it?
- What were the key lessons learnt about scenario planning?

Methodological Framework

Methodologies

- Inductive approach
- Single case study approach
- Mixed Methods

Methods

- Participatory Scenario Planning Workshop.

Techniques

- Visioning technique enabled people to articulate their hopes and building of awareness
- Pathways technique enabled participants to determine how they can get from the present to a desired future.

Other sources of data

- Longitudinal data from Shackleton et al. (2002)
- Aerial Photography data from 1960's
- Climate downscaled projections (2040-2050)

Methodological Approach

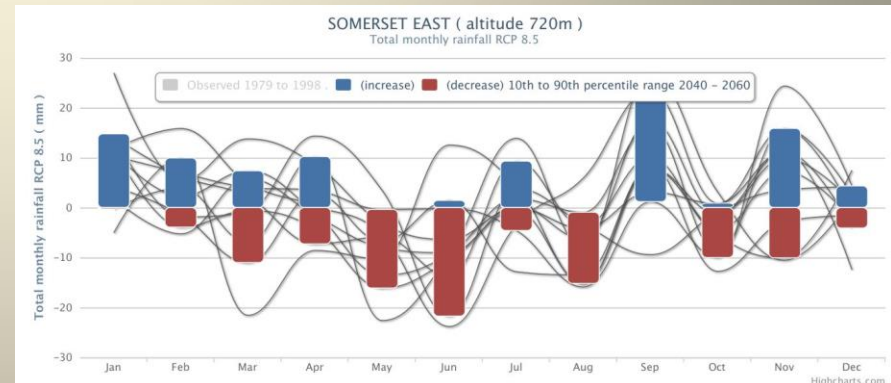
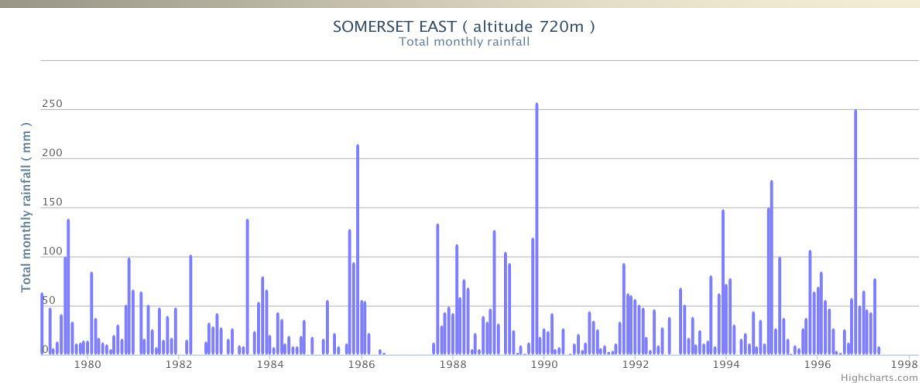


Results

- Land use and cover change dynamics (1967-2015)
 - ❖ Woody cover increase is 14%
 - ❖ Abandoned field cover increase is 36%
 - ❖ Grassland cover decreased is 19%
 - ❖ Home garden cover increase is 5%

Longitudinal data dynamics- Shackleton et al. 2002

- ❖ Fuelwood consumption increased by 16%
- ❖ Commercialisation of fuelwood increased by 60%
- ❖ Livestock rearing increased by 10%



Results

Past and future drivers of change

Driver	Youth	Adults	Community leaders	Total
Climate variability	6	10	5	21
Land tenure	3	8	7	18
Field cover decline	2	8	5	15
Entrepreneurism and business	7	2	1	9
Mechanised farming	1	4	4	9
Technology	5	1	2	8
Better education	3	1	2	6

Results

Visioning 2050 future

Table 1: Visioning 2050 plausible future under a changing climate

Driver	Youths	Adults	Community Leaders
Climate Change Effects	+	+	+
*Land Tenure	+/-	+	+
Outward migration	+	0	0
Participation	+	+	+
Aspects			
Small stocks rearing	+	+	+
Produce from fields	-	+	+
Home Gardens	-	+	+
Eco tourism	0	0	+
Social actors			
Entrepreneurship and Business	+	-	+/-
Administration	-	+	+
Ubuntu	+	-	-
Donors	-	-	-

Note: + (increasing) ; – (decrease); +/- (conditional); 0 (not mentioned)

***Note:** + (defined); +/- (slow process and undefined)

Results

Desired future and pathways

Table 2 Livelihood development and strategies recommended for meeting a desired future.

Desired livelihood future	Participatory Scenario Group	Specific strategies recommended for meeting the desired future
New ways of energy/power generation	Youth	<ul style="list-style-type: none"> • Solar energy
	Community leaders	<ul style="list-style-type: none"> • Lobby government
New ways of farming	Youth	<ul style="list-style-type: none"> • Livestock improvement programme • Conservation agriculture • Training of youth farmers
	Adults	<ul style="list-style-type: none"> • Clarity on land tenure • Revival of irrigation programme (HACOP) • Small scale irrigation
	Community leaders	<ul style="list-style-type: none"> • marketing of small grain • Conservation Agriculture
	Youth	<ul style="list-style-type: none"> • Market cultural tourism
Eco-tourism enterprise and entrepreneurship development	Adults	<ul style="list-style-type: none"> • Identify and promote cultural significant
	Youth	<ul style="list-style-type: none"> • Education
Better biodiversity conservation	Adults	<ul style="list-style-type: none"> • Participation

Key lessons learnt

1. Positivity

- “ even though the climate is changing, arable agriculture will remain central to our livelihoods, we only need to be taught conservation agricultural techniques”
- “ this was the first time for me to learn about climate change, I never thought that people of different backgrounds can learn together...together we can fight climate change”

2. Youth Empowerment

- “we thought that the community leaders didn’t care about the future of Fairbairn village....our voices as youths were heard and considered to be important”

3. Created opportunity for self-organisation towards social-ecological sustainability



Challenges encountered

- Defining what is participatory scenario planning was problematic at the beginning of the workshop
- Continuity of workshop participants was problematic



Conclusion

- Enhances anticipatory and adaptive capacity among different stakeholders

Acknowledgement

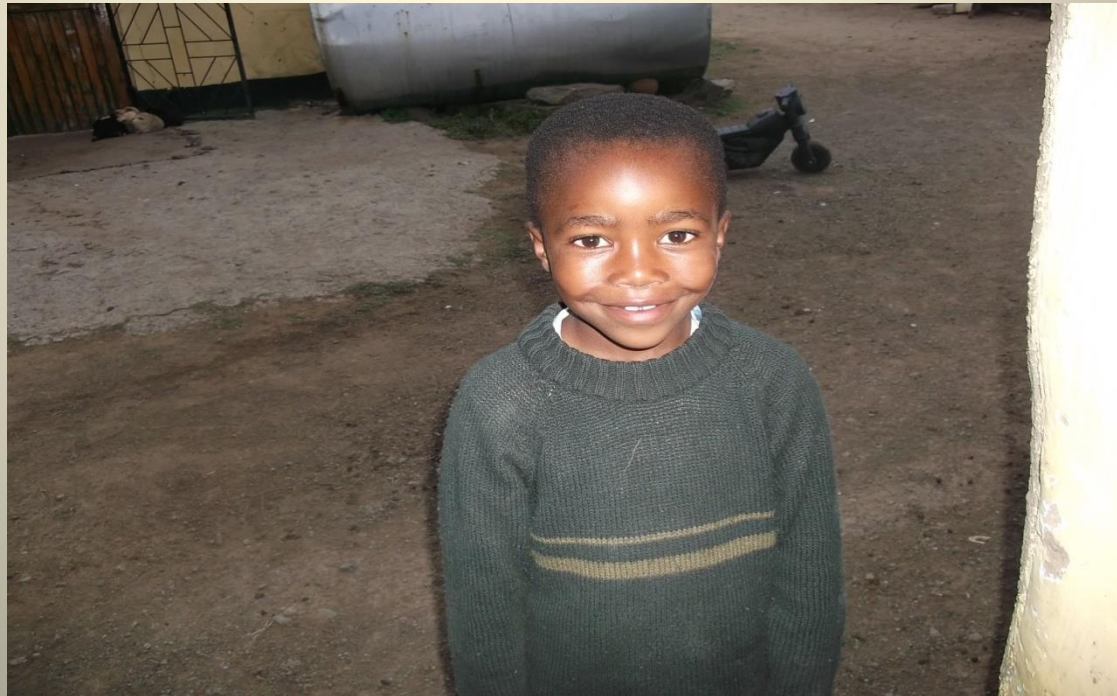
- Rhodes University
- Department of Environmental Science
- Sandisa Imbewu Team
- Prof. Sheona Shackleton
- Dr. Georgina Cundill

Conclusion

- From the Eastern Cape Experience

“Enkosi”

Thank you



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